MVP Southgate Amendment Project

Docket No. CP25-XX-000

Resource Report 2

Appendix 2-F

Amendment Project Wetland Delineation Reports

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Amendment Project Wetland Delineation Reports

Virginia

BURNS McDONNELL

MOUNTAIN VALLEY PIPELINE, LLC

MVP Southgate Amendment Project Wetland Delineation Report

MVP Southgate Amendment Project

DECEMBER 2, 2024

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List of Abbreviations

Abbreviation	Term/Phrase/Name
87 Manual	1987 Corps of Engineers Wetlands Delineation Manual
Amendment Project	MVP Southgate Amendment Project
Amendment Project Area	Project layout with associated with MVP Southgate Amendment Project
APT	Antecedent Precipitation Tool
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
HUC	Hydrologic Unit Code
MVP	Mountain Valley Pipeline, LLC
NAIP	National Agriculture Imagery Program
NC	North Carolina
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
OHWM	Ordinary High-Water Mark
PEM	Palustrine Emergent
PFO	Palustrine Forested
PJD	Preliminary Jurisdictional Determination
PSS	Palustrine Scrub-Shrub
PUB	Palustrine Unconsolidated Bottom
Regional Supplement	2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region – Version 2.0*
SSURGO	Soil Survey Geographic
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
VA	Virginia
VDEQ	Virginia Department of Environmental Quality

1.0 Introduction

Mountain Valley Pipeline LLC (MVP) is proposing a new 31.36 mile, 30-inch diameter natural gas pipeline initiating in Pittsylvania County, Virginia (VA) and terminating in Rockingham County, North Carolina (NC). A total of 26.75 miles of pipeline would be constructed in Virginia, and the remaining 4.61 miles of pipeline in North Carolina. MVP also proposes to construct one interconnection facility in Virginia and three interconnection facilities in North Carolina as part of the MVP Southgate Amendment Project (Amendment Project). Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) was contracted to conduct a wetland delineation for the Amendment Project. The Virginia portion of the Amendment Project begins southwest of Transco Road in Transco Village, VA (36°50'8.45"N, 79°20'25.50"W and 36°49'54.28"N, 79°20'5.07"W) and terminates at the Virginia-North Carolina border (36°32'29.87"N, 79°37'57.71"W) 0.18 miles northeast of the intersection of U.S. Highway 311 and Buffalo Road. Approximately 2.33 miles northeast of Fitzgerald, NC. A corridor of variable width and access roads were surveyed along this route (Amendment Project Area). The Virginia portion of the Amendment Project encompasses 586.8 acres (Project Area; Figure A-1). The Amendment Project Area consists primarily of broadleaf deciduous and mixed forests, pine plantations, current and former pastures, and planted row crops. This report encompasses only the Virginia portion of the Amendment Project.

Burns & McDonnell conducted a wetland delineation for the Amendment Project to evaluate the presence of wetlands and other water resources, including streams, drainages, and ponds, that may fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and Virginia Department of Environmental Quality (VDEQ) as designated by Sections 404 and 401 of the Clean Water Act. The wetland delineation was conducted in accordance with the 1987 *Corps of Engineers Wetland Delineation Manual* (87 Manual; USACE 1987) and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region – Version 2.0* (Regional Supplement; USACE 2010). Burns & McDonnell employs experienced delineators and strives to achieve a high a degree of precision and accuracy in the delineation of aquatic feature boundaries. As noted in the 87 Manual and Regional Supplement, delineations conducted at different times and/or by different delineators may result in minor variations in area and boundaries due to several factors. Those factors may include (1) the exercise of professional judgment to evaluate site-specific conditions and indicators; (2) statistical variability inherent in the use of transects and sampling methods to map features; and (3) normal annual and seasonal variability.

2.0 Methods

2.1 Desktop Review

Burns & McDonnell reviewed publicly available information in Geographic Information Systems to identify potential wetland and water body features in the Amendment Project Area prior to conducting a site visit. This information included U.S. Geological Survey (USGS) 7.5-minute topographic maps *Northeast Eden*, *NC* and *Brosville, Whitmell, Mount Hermon, Chatham, Spring Garden,* and *Blairs*, *VA* quadrangles (USGS 2022a, 2022b, 2022c, 2022d, 2022e, 2022f, 2022g), USGS National Hydrography Dataset (NHD USGS 2016), U.S. Fish & Wildlife Service National Wetlands Inventory (NWI) maps (USFWS 2024), National Agriculture Imagery Program (NAIP) aerial photography (NAIP 2022), the Federal Emergency Management Agency (FEMA) floodplain and floodway data (FEMA 2010), and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) digital data for Pittsylvania County, Virginia (USDA NRCS 2023). These maps are provided in Appendix A. The USACE Antecedent Precipitation Tool (APT) was reviewed to evaluate precipitation conditions and evaluate "normal conditions" as required as part of the wetland delineation (Appendix E; USACE 2023).

Data from the above sources were used to identify probable locations of wetlands within the Amendment Project Area. The USACE defines wetlands as areas that contain hydric soils, hydrophytic vegetation, and wetland hydrology. This desktop review used existing information to identify areas where these indicators are likely to be present, including overlapping areas of NWI and NHD features, hydric soils, lower elevations in the landscape, saturation or inundation visible on aerial imagery, etc. The onsite wetland delineation described below was conducted to verify and update the findings of the desktop review.

2.2 Wetland Delineation Field Survey

A wetland delineation was completed June 3 through 18, August 19 through September 4, September 26, and October 3, 2024, in accordance with the 87 Manual and the Regional Supplement. Boundaries were walked and recorded with sub-meter-accurate global positioning systems, including SXblue and Juniper Systems Geode. Sample plots were established at multiple locations, typically paired on either side of the wetland/upland boundary to demonstrate wetland and non-wetland conditions. The location and extent of wetlands, streams, and drainage ditches are shown with aerial imagery background on Figure A-2 in Appendix A.

Wetland Determination Data Forms from the Regional Supplement were completed to document representative conditions at each sample point location within the Amendment Project Area (Appendix B). Vegetation, soil conditions, and hydrologic indicators were recorded at each of these sample plots. The areal percent cover of each plant species was estimated by stratum, and the appropriate wetland indicator status from the USACE 2020 National Wetland Plant List was assigned to determine the presence or absence of hydrophytic vegetation. Soil color and texture were recorded using a Munsell Soil Color chart (Munsell 2021) and analyzed in accordance with the Field Indicators of Hydric Soils in the United States (USDA NRCS 2024a). Hydric soil indicators were noted on the data form when present. Observations of primary and secondary hydrology indicators were noted based on field observations and desktop data review. Representative photographs were taken at each sample plot location and are included in Appendix C. Each wetland was evaluated for the presence of all attributes according to the guidance in the 2020 USACE Norfolk District:

Wetland Attribute Form: Procedures Manual Version 1.0. Copies of the wetland attribute forms for each feature are included in Appendix D.

One parcel north of Halifax Road was unable to be accessed by survey teams during the field survey due to landowner restrictions. Based on a review of previous survey data collected in 2018 (Mountain Valley Pipeline LLC 2018) and visual observations from abutting public roads, it was determined that a small feature was present within the southeastern corner of the Amendment Project Area on the subject parcel. Since landowner restrictions did not allow access, this feature was digitally added to the current wetland delineation using data from the previous survey conducted in 2018 (Mountain Valley Pipeline LLC 2018).

Each wetland was assigned a classification based on the Cowardin Classification System (Cowardin et al. 1979) and consisted of the following:

- Palustrine Emergent (PEM) – characterized by a 30 percent or greater areal cover of emergent, herbaceous vegetation. Additionally, the combined areal cover of shrubs, saplings, and trees in these wetlands was less than 30 percent.
- Palustrine Forested (PFO) – characterized by a 30 percent or greater areal cover in the tree stratum and an aerial cover of less than 30 percent in the shrub/sapling stratum.
- Palustrine Scrub-Shrub (PSS) – characterized by a 30 percent or greater areal cover in the shrub/sapling stratum and an aerial cover of less than 30 percent in the tree stratum.
- Palustrine Unconsolidated Bottom (PUB) – characterized by a combined areal cover of less than 30 percent of vegetation.

Stream channels were delineated, and characteristics were recorded, including ordinary high-water mark (OHWM) width and depth as well as flow regime. Flow regimes at each delineated stream were assigned based on observed flow at the time of the delineation and consisted of one of the following designations:

- Perennial – characterized by the presence of a substantial volume of flow at the time of the site visit, indicating that water flows year-round.
- Intermittent – characterized by the presence of a limited volume of flow at the time of the site visit, indicating that the stream is partially fed by groundwater, but that flow is not continuous year-round.
- Ephemeral – characterized by a defined bed and bank but had limited or no flow during the site visit, indicating these streams largely carry water only during and after precipitation events.

Summary tables in Section 3.0 list the features identified and provide wetland acreage and linear feet of stream channels and drainage ditches within the Amendment Project Area.

3.0 Results

3.1 Desktop Review

The Virginia Department of Conservation and Recreation (2024) Hydrologic Unit Explorer indicates the Amendment Project is situated within the Upper Dan (Hydrologic Unit Code (HUC) 03010103), Banister River (HUC 03010105), and Lower Dan (HUC 03010104) drainage basins, which are sub-basins to the Roanoke River (HUC 0301001). The 2021 NAIP aerial photography indicates that the Amendment Project Area consists primarily of broadleaf deciduous and mixed forests, pine plantations, current and former pastures, and planted row crops.

A review of the USGS topographic maps (Figure A-2, Appendix A) indicates the Amendment Project Area consists of varying terrain, with elevations ranging from 478 to 858 feet above sea level, large portions of forested areas with scattered open areas, and numerous drainageways and stream channels including eight named features, Little Cherrystone Creek, Cherrystone Creek, the Banister River, White Oak Creek, Sandy Creek, the Sandy River, Trayner Branch, and Trotters Creek. The drainageways and stream channels generally flow southeast into named streams, including Little Cherrystone Creek, Cherrystone Creek, the Banister River, White Oak Creek, Sandy Creek, the Sandy River, Trayner Branch, Trotters Creek, and many unnamed tributaries to these named streams, as well as addition unnamed tributaries to Silver Creek and the Dan River.

The USDA NRCS SSURGO digital data indicates that portions of 31 soil map units are located in the Amendment Project Area (Figure A-3). Of the 31 soil map units, only one map unit (Hatboro silt loam, 0 to 2 percent slopes, frequently flooded) is included in the NRCS Hydric Soils List (Figure A-4, Appendix A; Soil Survey Staff NRCS, 2024b).

The NWI data indicates two PEM wetlands, four PFO wetlands, one PSS wetland, and 33 riverine features are located within the Amendment Project Area (Figure A-4, Appendix A).

The NHD data indicates the Amendment Project Area crosses numerous streams, including Little Cherrystone Creek, Cherrystone Creek, Banister River, White Oak Cree, Sandy Creek, Sandy River, Trayner Branch, and Trotters Creek (Figure A-4, Appendix A).

The FIRM data indicates the Amendment Project Area crosses several floodplains as well as the floodway associated with Sandy Creek, Sandy River, Banister River, and Cherrystone Creek (Figure A-4, Appendix A).

The USACE APT indicates that the antecedent precipitation conditions that the site experienced fluctuated over time between drier than normal and normal. All days that surveys were conducted were under normal antecedent precipitation conditions except for June 10, 17, and 18, 2024, where conditions were drier than normal and August 21 through 30 and September 26, and October 3, 2024, where conditions were wetter than normal. A copy of the USACE APT results is provided in Appendix E.

3.2 Delineated Areas

From June 3 through 18, August 19 through September 4, September 26, and October 3, 2024, wetland scientists conducted a wetland delineation of the Amendment Project Area. The locations, boundaries, and characteristics of wetlands and streams were determined and recorded within the Amendment Project Area. The land cover and delineated wetlands and other waterbodies are discussed in detail below.

3.2.1 Vegetation

The Amendment Project Area primarily consisted of broadleaf deciduous forest, mixed forest, pine plantations, current and former pastures, and row crops. Dominant tree and shrub/sapling species within the Amendment Project Area include red maple (*Acer rubrum*), tuliptree (*Liriodendron tulipifera*), Persian silk tree (*Albizia julibrissin*), white oak (*Quercus alba*), black cherry (*Prunus serotina*), American hornbeam (*Carpinus caroliniana*), sweetgum (*Liquidambar styraciflua*), willow oak (*Quercus phellos*), and pignut hickory (*Carya glabra*). Dominant herbaceous species within the Amendment Project Area included white clover (*Trifolium repens*), Japanese stiltgrass (*Microstegium vimineum*), fowl mannagrass (*Glyceria striata*), rescue brome (*Bromus catharticus*), annual bluegrass (*Poa annua*), tall fescue (*Schedonorus arundinaceus*), false nettle (*Boehmeria cylindrica*), tall goldenrod (*Solidago altissima*), and deertongue (*Dichanthelium clandestinum*).

3.2.2 Soils

Typical soils within the Amendment Project Area ranged from gray (10YR 6/1) to pale brown (10YR 6/3) and ranged from clay loam to sandy loam in texture. Redoximorphic features were typically present in wetland soils and absent from upland soils. Soils observed within delineated wetland areas are described below and are shown on the Data Forms in Appendix B.

3.2.3 Hydrology

The primary source of hydrology for wetland areas was the retention of surface runoff in geomorphic positions with poor drainage and flooding from adjacent streams and groundwater. Indicators of hydrology within wetlands included the presence of High Water Table, Saturation, Oxidized Rhizospheres on Living Roots, Drift Deposits, Drainage Patterns, Geomorphic Position, and a positive FAC-Neutral Test.

3.2.4 Wetlands

The delineation identified a total of 132 wetlands, comprised of four wetland types: PEM, PFO, PUB, and PSS, encompassing a total of 20.38 acres within the Amendment Project Area. Burns & McDonnell assumes a Preliminary Jurisdicitional Request (PJD) will be submitted to USACE for the Amendment Project, therefore all wetlands within the Amendment Project Area are assumed to be under both USACE and VDEQ jurisdiction. Table 3-1 below includes the Cowardin classification, acreage, and proposed jurisdictional status of each wetland delineated within the Amendment Project Area. The location and extent of the delineated wetlands are depicted in Figure A-5 in Appendix A. Data forms and color photographs from the wetland delineation are included in Appendices B and C, respectively. Paired sample plots were taken at each wetland except in cases where individual wetland areas exhibited the same characteristics as nearby wetlands where paired sampled plots were taken. Data forms for wetlands W-A055, W-A056, W-A057, W-A058, W-A059, W-A060, W-A047a, W-A047b, and W-B046 are not provided as the proposed pipeline route was moved and these features would not be impacted. Several wetlands were delineated and determined to be located outside of the Amendment Project Area. These features are depicted on Figures A-5 (Appendix A) but are not included in Table 3-1.

Sixty-nine PEM wetlands encompassing 9.68 acres were delineated. Common vegetation within PEM wetlands included tall fescue, hog peanut (*Amphicarpaea bracteata*), giant goldenrod (*Solidago gigantea*) ground-ivy (*Glechoma hederacea*), lamp rush (*Juncus effusus*), swamp aster (*Symphyotrichum puniceum*), deertongue, Japanese stiltgrass, fringed sedge (*Carex crinita*), and Virginia creeper (*Parthenocissus quinquefolia*). Wetland hydrology was commonly indicated by Surface Water, High Water Table, Saturation, Sediment Deposits, Drift Deposits, Drainage Patterns, Geomorphic Position, and a positive FAC-Neutral Test. Hydric soil was mainly indicated by Depleted Matrix.

Forty-four PFO wetlands encompassing 8.73 acres were delineated. Dominant woody vegetation in PFO wetlands black highbush blueberry (*Vaccinium fuscatum*), river birch (*Betula nigra*), American hornbeam, sweetgum, tuliptree, red maple, willow oak, black elderberry (*Sambucus nigra*), Chinese privet (*Ligustrum sinense*). Dominant herbaceous vegetation in PFO wetlands included ground ivy, fowl mannagrass, spotted jewelweed (*Impatiens capensis*), skunk cabbage (*Symplocarpus foetidus*), tussock sedge (*Carex stricta*), halberd-leaved smartweed (*Persicaria arifolia*), Virginia dayflower (*Commelina virginica*), marsh dewflower (*Murdannia keisak*), and round-leaved greenbrier (*Smilax rotundifolia*). Wetland hydrology was mainly indicated by Surface Water, High Water Table, Saturation, Water-Stained Leaves, Sediment Deposits, Drift Deposits, Oxidized Rhizospheres, Surface Soil Cracks, Drainage Patterns, Geomorphic Position, and a positive FAC-Neutral Test. Hydric soil was mainly indicated by Depleted Below Dark Surface, Loamy Gleyed Matrix, and Depleted Matrix.

Fifteen PSS wetlands encompassing 0.99 acres were delineated. Dominant woody vegetation in PSS wetlands included Chinese privet (*Ligustrum sinense*), American hornbeam, willow oak, red maple, Allegheny blackberry (*Rubus allegheniensis*), multiflora rose (*Rosa multiflora*), smooth alder (*Alnus serrulata*), black elderberry, pawpaw (*Asimina triloba*), and silky dogwood (*Cornus amomum*). Dominant herbaceous vegetation in PSS wetlands included tall goldenrod, rough horsetail (*Equisetum hyemale*), round-leaved greenbrier, Japanese stiltgrass, lamp rush, fringed sedge, Kentucky bluegrass, potato bean (*Apios americana*), and deertongue. Wetland hydrology was mainly indicated by Surface Water, High Water Table, Saturation, Sediment Deposits, Drift Deposits, Oxidized Rhizospheres, Iron Deposits, Drainage Patterns, Geomorphic Position, Shallow Aquitard, and a positive FAC-Neutral Test. Hydric soil was commonly indicated by Loamy Gleyed Matrix and Depleted Matrix.

Four PUB wetlands encompassing 0.98 acres were delineated. Vegetation was largely absent due to the presence of open water. Vegetation adjacent to PUB wetlands included woolgrass (*Scirpus cyperinus*), loblolly pine (*Pinus taeda*), lamp rush, narrow-leaved cattail (*Typha latifolia*), Chinese bushclover (*Lespedeza cuneata*), narrow-leaved mountain mint (*Pycnanthemum tenuifolium*), broomsedge (*Andropogon virginicus*), Allegheny blackberry, and black willow (*Salix nigra*). Soil sampling was prevented by the presence of open water, but hydric soil conditions are assumed due to inundation creating anaerobic conditions. Hydrology was indicated by Surface Water, Inundation Visible on Aerial Imagery, and Geomorphic Position.

Table 3-1: Type and Size of Delineated Wetlands

Wetland Number	Wetland Type[a]	Area of Wetland Delineated (acre)[b]	Proposed Agency Jurisdiction[c]	Figure A-5 Page Number
OW-A001	PUB	0.10	USACE/VDEQ	1
OW-A002	PUB	0.11	USACE/VDEQ	2
OW-A003	PUB	0.77	USACE/VDEQ	2
OW-B004	PUB	<0.01	USACE/VDEQ	129
W-A001	PEM	0.32	USACE/VDEQ	10, 11
W-A002	PFO	0.46	USACE/VDEQ	10
W-A003a	PFO	1.99	USACE/VDEQ	9, 10
W-A003b	PEM	0.18	USACE/VDEQ	9, 10
W-A004	PEM	0.05	USACE/VDEQ	4
W-A005	PEM	0.06	USACE/VDEQ	5
W-A006	PFO	0.09	USACE/VDEQ	9

Wetland Number	Wetland Type[a]	Area of Wetland Delineated (acre)[b]	Proposed Agency Jurisdiction[c]	Figure A-5 Page Number
W-A007	PEM	0.07	USACE/VDEQ	20
W-A008	PEM	0.01	USACE/VDEQ	20
W-A009	PEM	0.04	USACE/VDEQ	20
W-A010a	PEM	2.29	USACE/VDEQ	18, 19
W-A010b	PFO	1.19	USACE/VDEQ	18, 19
W-A010c	PSS	0.04	USACE/VDEQ	19
W-A011	PEM	0.04	USACE/VDEQ	17
W-A012	PSS	0.02	USACE/VDEQ	17
W-A013a	PEM	1.02	USACE/VDEQ	14, 17
W-A013b	PSS	0.53	USACE/VDEQ	14, 17
W-A013c	PFO	0.07	USACE/VDEQ	14
W-A013d	PFO	0.22	USACE/VDEQ	14, 17
W-A014	PEM	0.10	USACE/VDEQ	12
W-A015	PEM	0.01	USACE/VDEQ	12
W-A016	PEM	0.06	USACE/VDEQ	12
W-A017	PEM	0.18	USACE/VDEQ	57
W-A018	PEM	<0.01	USACE/VDEQ	105
W-A019	PFO	0.07	USACE/VDEQ	30
W-A020	PFO	0.04	USACE/VDEQ	37
W-A021	PFO	0.19	USACE/VDEQ	37
W-A022	PFO	1.07	USACE/VDEQ	37
W-A023	PFO	0.13	USACE/VDEQ	37
W-A024	PSS	0.05	USACE/VDEQ	39, 40
W-A025	PEM	0.02	USACE/VDEQ	55
W-A026	PEM	0.01	USACE/VDEQ	53
W-A027	PEM	0.01	USACE/VDEQ	50
W-A028	PFO	0.10	USACE/VDEQ	59
W-A029a	PEM	0.07	USACE/VDEQ	59
W-A029b	PFO	0.17	USACE/VDEQ	59
W-A030a	PEM	0.10	USACE/VDEQ	62
W-A030b	PSS	0.07	USACE/VDEQ	62
W-A031	PFO	0.20	USACE/VDEQ	65, 67
W-A032	PEM	0.01	USACE/VDEQ	49
W-A033	PFO	0.07	USACE/VDEQ	67
W-A034	PFO	0.03	USACE/VDEQ	67
W-A035	PSS	0.01	USACE/VDEQ	67
W-A036	PSS	0.03	USACE/VDEQ	72
W-A037	PEM	<0.01	USACE/VDEQ	73
W-A038	PSS	0.02	USACE/VDEQ	73

Wetland Number	Wetland Type[a]	Area of Wetland Delineated (acre)[b]	Proposed Agency Jurisdiction[c]	Figure A-5 Page Number
W-A039	PFO	0.06	USACE/VDEQ	74
W-A040	PEM	0.02	USACE/VDEQ	74
W-A041	PFO	0.02	USACE/VDEQ	79
W-A042	PEM	<0.01	USACE/VDEQ	79
W-A043	PEM	<0.01	USACE/VDEQ	79
W-A044	PFO	0.13	USACE/VDEQ	84
W-A045	PFO	0.08	USACE/VDEQ	84
W-A046	PEM	<0.01	USACE/VDEQ	87
W-A047	PEM	0.01	USACE/VDEQ	87
W-A048	PEM	0.01	USACE/VDEQ	92
W-A049a	PFO	0.11	USACE/VDEQ	86
W-A049b	PEM	0.02	USACE/VDEQ	86
W-A050	PEM	0.01	USACE/VDEQ	20
W-A051	PEM	0.03	USACE/VDEQ	99
W-A052a	PSS	0.02	USACE/VDEQ	102
W-A052b	PEM	0.01	USACE/VDEQ	102
W-A052c	PFO	0.02	USACE/VDEQ	102
W-A053	PEM	< 0.01	USACE/VDEQ	19, 20
W-A054	PEM	0.10	USACE/VDEQ	102
W-A055	PEM	< 0.01	USACE/VDEQ	107
W-A056	PSS	0.01	USACE/VDEQ	107
W-A057	PSS	0.01	USACE/VDEQ	107
W-A058	PEM	<0.01	USACE/VDEQ	107
W-A059	PEM	0.04	USACE/VDEQ	108
W-A060	PSS	<0.01	USACE/VDEQ	108
W-A061	PEM	0.02	USACE/VDEQ	105
W-A062	PEM	0.04	USACE/VDEQ	105
W-A063	PEM	0.02	USACE/VDEQ	112
W-A064	PFO	0.11	USACE/VDEQ	112, 113
W-A065	PEM	0.01	USACE/VDEQ	114
W-A066	PEM	<0.01	USACE/VDEQ	114
W-A067	PEM	0.02	USACE/VDEQ	114
W-A068	PEM	0.02	USACE/VDEQ	43
W-A069	PFO	0.01	USACE/VDEQ	48
W-A070a	PEM	0.02	USACE/VDEQ	49
W-A070b	PEM	0.01	USACE/VDEQ	48, 49
W-A070c	PFO	0.10	USACE/VDEQ	49
W-A071a	PEM	<0.01	USACE/VDEQ	110
W-A071b	PSS	0.01	USACE/VDEQ	110

Wetland Number	Wetland Type[a]	Area of Wetland Delineated (acre)[b]	Proposed Agency Jurisdiction[c]	Figure A-5 Page Number
W-A072	PFO	<0.01	USACE/VDEQ	32
W-A073a	PEM	0.43	USACE/VDEQ	36
W-A073b	PFO	0.27	USACE/VDEQ	36
W-A075	PEM	<0.01	USACE/VDEQ	32
W-A076	PEM	<0.01	USACE/VDEQ	97
W-A078	PEM	0.01	USACE/VDEQ	143
W-A079	PEM	<0.01	USACE/VDEQ	13
W-B013a	PEM	0.02	USACE/VDEQ	151
W-B013b	PFO	0.16	USACE/VDEQ	151
W-B014	PFO	0.05	USACE/VDEQ	150
W-B015	PFO	0.01	USACE/VDEQ	145, 147
W-B016	PFO	0.20	USACE/VDEQ	146
W-B017	PEM	2.52	USACE/VDEQ	142, 143
W-B018	PFO	0.05	USACE/VDEQ	143, 144
W-B019	PEM	0.12	USACE/VDEQ	141
W-B020	PSS	0.15	USACE/VDEQ	140
W-B021	PFO	0.03	USACE/VDEQ	132
W-B022	PFO	0.06	USACE/VDEQ	137
W-B023	PFO	0.04	USACE/VDEQ	129
W-B024	PEM	0.01	USACE/VDEQ	130
W-B025	PEM	0.18	USACE/VDEQ	130
W-B026	PFO	0.22	USACE/VDEQ	130
W-B035	PFO	0.03	USACE/VDEQ	131
W-B036a	PFO	0.02	USACE/VDEQ	129
W-B036b	PEM	0.08	USACE/VDEQ	129
W-B037a	PEM	0.01	USACE/VDEQ	128
W-B037b	PFO	0.01	USACE/VDEQ	128
W-B038a	PEM	0.08	USACE/VDEQ	125, 126
W-B038b	PFO	0.01	USACE/VDEQ	126
W-B038c	PEM	0.09	USACE/VDEQ	126
W-B039a	PEM	0.04	USACE/VDEQ	124
W-B039b	PFO	0.13	USACE/VDEQ	124
W-B040	PEM	<0.01	USACE/VDEQ	122
W-B041	PSS	0.02	USACE/VDEQ	122
W-B042	PEM	0.12	USACE/VDEQ	120, 121
W-B043	PFO	0.36	USACE/VDEQ	117, 118
W-B044	PEM	0.13	USACE/VDEQ	116
W-B046	PEM	0.07	USACE/VDEQ	108, 109
W-B047a	PEM	0.64	USACE/VDEQ	108

Wetland Number	Wetland Type[a]	Area of Wetland Delineated (acre)[b]	Proposed Agency Jurisdiction[c]	Figure A-5 Page Number
W-B047b	PFO	0.31	USACE/VDEQ	108
W-B049	PFO	0.04	USACE/VDEQ	139
W-B050	PEM	<0.01	USACE/VDEQ	141, 142
W-B054	PEM	0.07	USACE/VDEQ	131
	Total	**20.38**		

(a) Symbols for wetland type: PEM = palustrine emergent, PFO = palustrine forested, PSS = palustrine scrub-shrub, PUB = palustrine unconsolidated bottom.
(b) Acreage of jurisdictional wetlands within the Amendment Project Area rounded to the nearest tenth of an acre.
(c) All delineated wetland features within the Amendment Project Area are assumed to be under USACE and VDEQ jurisdiction.
(d) W-B013b is located in North Carolina and Virginia. The delineated area of W-B013b includes the portions within Virginia.

3.2.5 Streams

A total of 105 streams for a combined length of 14,959 feet were identified during the site evaluation, including one stream added digitally from the previous wetland survey in 2018. Streams were classified into ephemeral, intermittent, or perennial categories. Burns & McDonnell assumes all streams identified will fall under the jurisdiction of the USACE and VDEQ. Six of the stream channels identified (S-A004, S-A008, S-A020, S-A021, S-A022, S-A063a) maintained drainage areas greater than 5 square miles and are likely to be subject to regulatory requirements set by the Virginia Marine Resource Commission (VMRC). Table 3-2 below includes the length of each stream delineated within the Amendment Project Area. The location and extent of the delineated streams are depicted in Figure A-5 in Appendix A. Color photographs from the wetland delineation are located in Appendix C. Several streams were delineated and determined to be located outside of the Amendment Project Area. These features are depicted on Figures A-5 (Appendix A) but are not included in Table 3-2.

Twenty-two perennial streams extending for a delineated length of 4,092 feet were identified. These perennial streams ranged from three to 80 feet wide and 0.5 to over 4.5 feet at the OHWM. The depth of the Sandy River at the OHWM is likely greater than 4.5 feet; however, the depth of this river could not be safely assessed.

Forty-eight intermittent streams extending for a delineated length of 7,301 feet were identified. Intermittent streams were characterized by the presence of a limited volume of flow at the time of the site visit, indicating that the stream is partially fed by groundwater but that the stream may not flow during dry periods. These intermittent streams ranged from one to 10 feet wide and 0.1 to one foot deep at the OHWM.

Thirty-five ephemeral streams extending for a delineated length of 3,566 feet were identified. Ephemeral streams were characterized by a defined bed and bank but had limited or no flow during the site visit, indicating these streams largely carry water only during and after precipitation events. These ephemeral streams ranged from one to three feet wide, 0.1 to one foot deep at the OHWM.

Table 3-2: Type and Length of Delineated Streams

Stream Number	Stream Type	Length of Stream (linear feet)[a]	OHWM Width (ft)	OHWM Depth (ft)	Proposed Agency Jurisdiction[b]	Figure A-5 Page Number
S-A001	Intermittent	81	4.0	1.0	USACE/VDEQ	59

Stream Number	Stream Type	Length of Stream (linear feet)[a]	OHWM Width (ft)	OHWM Depth (ft)	Proposed Agency Jurisdiction[b]	Figure A-5 Page Number
S-A002	Intermittent	430	5.0	0.3	USACE/VDEQ	10
S-A003	Intermittent	10	1.0	0.1	USACE/VDEQ	10
S-A004	Perennial	431	15.0	2.0	USACE/VDEQ	10
S-A005	Intermittent	91	4.0	0.3	USACE/VDEQ	3
S-A006	Ephemeral	113	4.0	0.4	USACE/VDEQ	9
S-A007	Intermittent	8	4.0	0.25	USACE/VDEQ	20
S-A008	Perennial	110	25.0	3.0	USACE/VDEQ	17
S-A009	Intermittent	98	4.0	0.25	USACE/VDEQ	14
S-A010	Ephemeral	22	3.0	0.3	USACE/VDEQ	14
S-A011	Ephemeral	57	2.0	0.2	USACE/VDEQ	14
S-A012	Intermittent	92	4.0	0.5	USACE/VDEQ	13
S-A013	Ephemeral	265	2.0	0.2	USACE/VDEQ	12
S-A014	Ephemeral	25	2.0	0.2	USACE/VDEQ	12
S-A015	Ephemeral	85	4.0	0.3	USACE/VDEQ	32
S-A016	Intermittent	81	4.0	0.25	USACE/VDEQ	32, 33
S-A017	Intermittent	403	3.0	0.25	USACE/VDEQ	32, 33
S-A018	Intermittent	80	3.0	1.0	USACE/VDEQ	28
S-A019	Intermittent	76	4.0	0.3	USACE/VDEQ	30
S-A020	Perennial	117	40.0	4.5	USACE/VDEQ	36
S-A021	Perennial	112	16.0	1.5	USACE/VDEQ	36, 37
S-A022	Perennial	77	24.0	3.0	USACE/VDEQ	37
S-A023	Intermittent	29	4.5	0.4	USACE/VDEQ	55
S-A024	Intermittent	126	4.5	0.4	USACE/VDEQ	55
S-A025	Intermittent	125	4.0	0.5	USACE/VDEQ	53
S-A026	Perennial	111	4.5	0.3	USACE/VDEQ	50, 51
S-A027	Intermittent	162	5.0	0.75	USACE/VDEQ	50, 51
S-A028	Ephemeral	76	5.0	1.0	USACE/VDEQ	49
S-A029	Perennial	77	11.0	0.5	USACE/VDEQ	59
S-A030	Ephemeral	61	1.5	0.1	USACE/VDEQ	60
S-A031	Perennial	41	4.0	0.5	USACE/VDEQ	62
S-A032	Intermittent	72	4.0	0.2	USACE/VDEQ	65, 67
S-A033a	Perennial	196	7.0	1.5	USACE/VDEQ	67
S-A034	Intermittent	135	2.0	0.1	USACE/VDEQ	67
S-A036	Intermittent	305	3.0	0.2	USACE/VDEQ	72
S-A037	Intermittent	24	2.0	0.1	USACE/VDEQ	72
S-A038	Ephemeral	246	2.0	0.1	USACE/VDEQ	72
S-A039	Ephemeral	94	2.5	0.1	USACE/VDEQ	73
S-A039-Braid1	Ephemeral	61	2.5	0.1	USACE/VDEQ	73
S-A040	Ephemeral	309	2.0	0.1	USACE/VDEQ	73
S-A041	Intermittent	78	2.0	0.1	USACE/VDEQ	73
S-A042	Perennial	152	6.0	1.0	USACE/VDEQ	73

Stream Number	Stream Type	Length of Stream (linear feet)[a]	OHWM Width (ft)	OHWM Depth (ft)	Proposed Agency Jurisdiction[b]	Figure A-5 Page Number
S-A043	Intermittent	94	2.0	0.25	USACE/VDEQ	74
S-A044	Perennial	77	8.0	1.5	USACE/VDEQ	75, 76
S-A045	Perennial	86	15.0	1.0	USACE/VDEQ	79
S-A046	Perennial	114	6.0	0.75	USACE/VDEQ	84
S-A047	Perennial	27	8.0	2.0	USACE/VDEQ	87
S-A048	Intermittent	77	3.0	0.2	USACE/VDEQ	92
S-A049	Perennial	87	12	0.25	USACE/VDEQ	86
S-A050	Intermittent	82	2.5	0.25	USACE/VDEQ	98
S-A051	Perennial	98	18.0	1.0	USACE/VDEQ	96, 97
S-A052	Intermittent	171	3.0	0.2	USACE/VDEQ	98
S-A053	Intermittent	55	8.0	2.0	USACE/VDEQ	105
S-A054	Intermittent	93	4.0	0.2	USACE/VDEQ	99
S-A055	Intermittent	107	2.0	0.2	USACE/VDEQ	99
S-A056	Ephemeral	37	2.5	0.1	USACE/VDEQ	101
S-A057	Intermittent	95	5.0	0.3	USACE/VDEQ	102
S-A058	Intermittent	83	5.0	0.5	USACE/VDEQ	103
S-A059	Intermittent	97	3.0	0.3	USACE/VDEQ	110
S-A060	Ephemeral	274	2.0	0.1	USACE/VDEQ	107
S-A062	Ephemeral	45	1.0	0.2	USACE/VDEQ	107
S-A063a	Perennial	1,785	75.0	N/A	USACE/VDEQ	107, 108
S-A065	Ephemeral	24	3.0	0.1	USACE/VDEQ	105
S-A066	Ephemeral	26	3.0	0.3	USACE/VDEQ	45
S-A067	Ephemeral	14	3.0	0.2	USACE/VDEQ	42, 47
S-A068	Ephemeral	137	2.0	0.2	USACE/VDEQ	48
S-A069	Intermittent	13	3.0	0.5	USACE/VDEQ	50
S-A070	Intermittent	79	2.0	0.1	USACE/VDEQ	95
S-A071	Perennial	89	10.0	1.0	USACE/VDEQ	104
S-A074[c]	Ephemeral	94	9	N/A	USACE/VDEQ	12
S-B020	Intermittent	85	4.0	0.25	USACE/VDEQ	150
S-B021	Intermittent	753	3.0	0.25	USACE/VDEQ	142, 143
S-B022	Ephemeral	133	2.0	0.25	USACE/VDEQ	139
S-B023	Ephemeral	81	2.0	0.2	USACE/VDEQ	139
S-B024	Intermittent	79	3.0	0.5	USACE/VDEQ	139
S-B025	Ephemeral	130	2.0	0.2	USACE/VDEQ	139
S-B026	Intermittent	27	4.0	0.5	USACE/VDEQ	132
S-B027	Intermittent	13	3.0	0.5	USACE/VDEQ	132
S-B028	Ephemeral	25	5.0	0.25	USACE/VDEQ	132
S-B029	Perennial	78	9.0	1.0	USACE/VDEQ	136
S-B030	Ephemeral	44	3.0	0.25	USACE/VDEQ	137
S-B031	Ephemeral	21	2.0	0.25	USACE/VDEQ	137
S-B032	Intermittent	77	1.5	0.25	USACE/VDEQ	129
S-B033	Intermittent	39	3.0	0.25	USACE/VDEQ	130

Stream Number	Stream Type	Length of Stream (linear feet)[a]	OHWM Width (ft)	OHWM Depth (ft)	Proposed Agency Jurisdiction[b]	Figure A-5 Page Number
S-B038	Intermittent	234	4.0	0.5	USACE/VDEQ	131
S-B039	Ephemeral	134	1.0	0.2	USACE/VDEQ	134
S-B040	Ephemeral	142	3.0	0.25	USACE/VDEQ	129
S-B041	Intermittent	72	3.0	0.5	USACE/VDEQ	125, 126
S-B042	Perennial	85	5.0	0.5	USACE/VDEQ	126
S-B043	Perennial	82	5.0	1.0	USACE/VDEQ	124
S-B044a	Perennial	60	4.0	0.5	USACE/VDEQ	122
S-B045	Intermittent	98	2.0	0.5	USACE/VDEQ	120, 121
S-B046	Intermittent	639	3.0	0.5	USACE/VDEQ	117, 118
S-B047	Intermittent	670	3.0	0.5	USACE/VDEQ	108
S-B051	Intermittent	95	3.0	1.0	USACE/VDEQ	149
S-B052	Intermittent	82	4.0	1.0	USACE/VDEQ	145, 147
S-B053	Ephemeral	54	1.0	0.25	USACE/VDEQ	144
S-B054	Intermittent	432	2.0	0.5	USACE/VDEQ	143, 144
S-B055	Intermittent	435	1.0	0.25	USACE/VDEQ	143, 144
S-B056	Ephemeral	97	3.0	0.5	USACE/VDEQ	141, 142
S-B058	Ephemeral	50	3.0	1.0	USACE/VDEQ	146
S-B059	Ephemeral	393	2.0	0.25	USACE/VDEQ	116
S-B060	Ephemeral	99	2.0	0.1	USACE/VDEQ	36
S-B061	Ephemeral	72	3.0	0.1	USACE/VDEQ	136
S-C001	Ephemeral	26	2.5	0.5	USACE/VDEQ	143

(a) Linear feet of jurisdictional streams within the Amendment Project Area, rounded to the nearest foot.
(b) All delineated stream features within the Amendment Project Area are assumed to be under USACE and VDEQ jurisdiction.
(c) S-A074 is located within a parcel that was not accessible for field survey. Previous field survey data from 2018 (Mountain Valley Pipeline LLC 2018) was utilized.

4.0 Conclusion

Burns & McDonnell conducted a wetland delineation of the Amendment Project Area from June 3 through 18, August 19 through September 4, September 26, and October 3, 2024, to identify wetlands and other aquatic resources. A total of 132 wetlands and 105 stream channels were identified. Burns & McDonnell assumes a PJD submittal to the USACE, therefore all wetlands and streams are assumed to be under the jurisdiction of the USACE and VDEQ. Six of the identified streams have a drainage area greater than 5 square miles and will also likely be subject to VMRC regulatory requirements. The jurisdiction of all features identified is subject to change pending a jurisdictional determination by the USACE and VDEQ.

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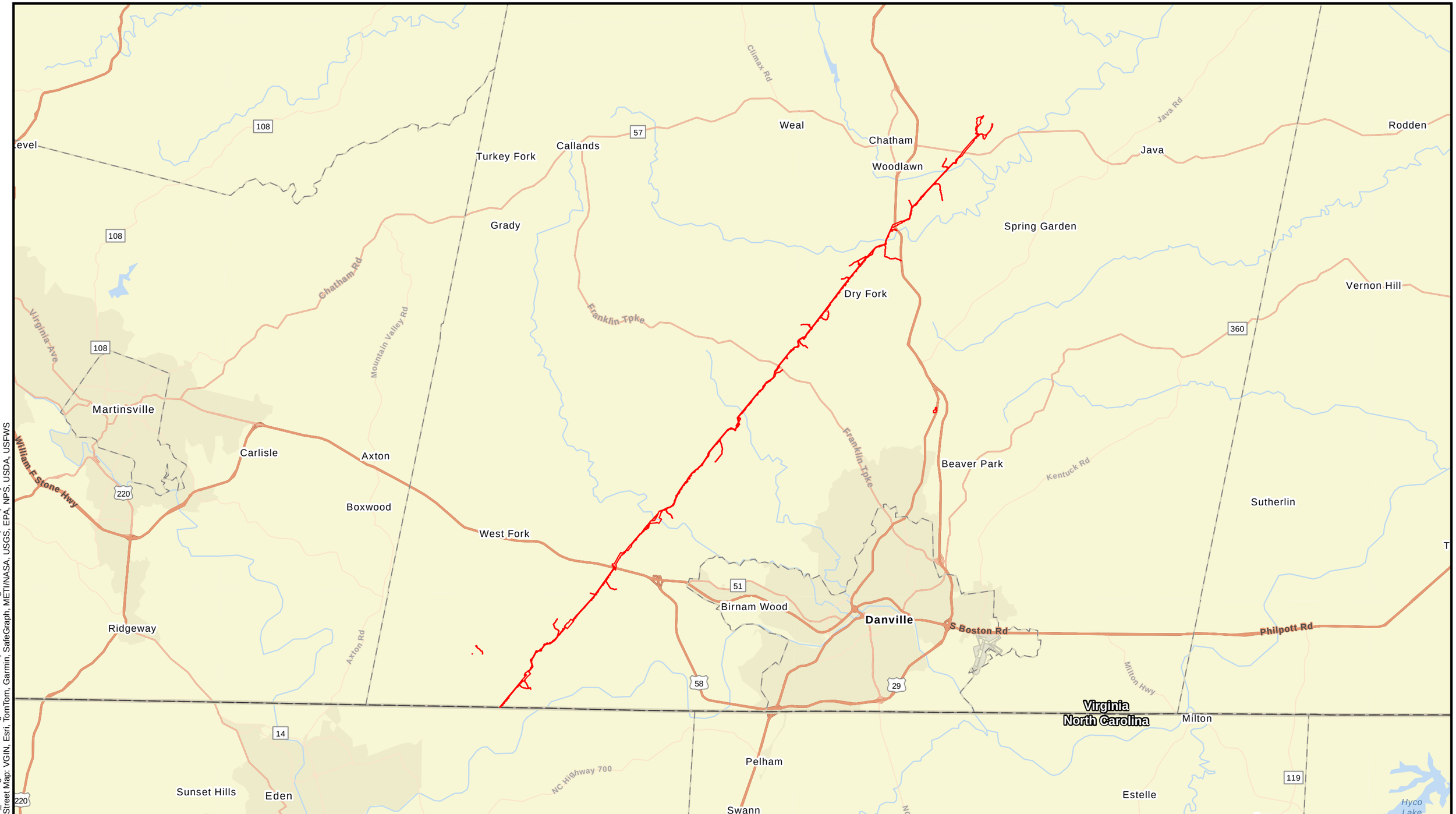
Appendix A – Figures



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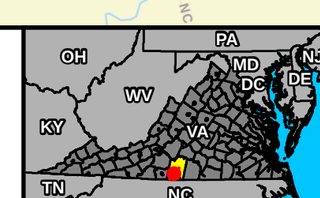

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Scale in Miles

Figure A-1
General Vicinity Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

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Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Source: ESRI, and Burns & McDonell.

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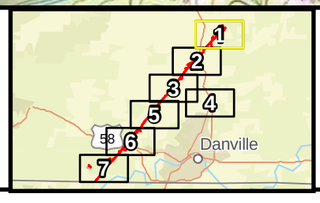

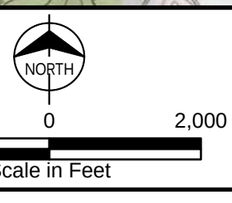

Figure A-2
Overview Topographic Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 1 of 7

Source: ESRI, USGS, and Burns & McDonnell.

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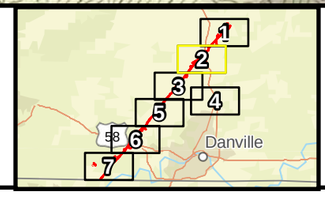

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Scale in Feet

Figure A-2
Overview Topographic Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 2 of 7

Source: ESRI, USGS, and Burns & McDonnell.

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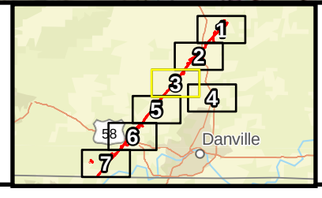
Project Area



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Scale in Feet

Figure A-2
Overview Topographic Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 3 of 7

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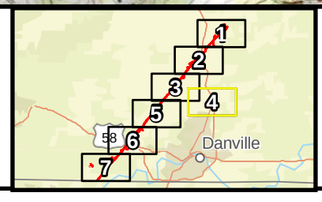

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Scale in Feet

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Figure A-2
Overview Topographic Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 4 of 7

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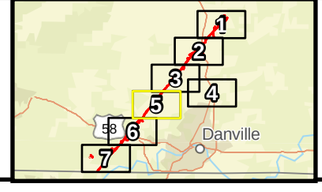

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Scale in Feet

Figure A-2
Overview Topographic Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 5 of 7

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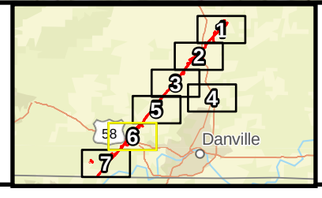

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Scale in Feet

Figure A-2
Overview Topographic Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 6 of 7

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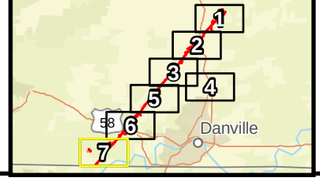
Project Area



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Scale in Feet

Figure A-2
Overview Topographic Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 7 of 7

Source: ESRI, USGS, and Burns & McDonnell.

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Service Layer Credits: USA_Topo_Maps: Copyright© 2013 National Geographic Society, i-cubed

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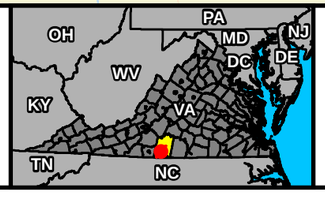
Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Project Area
Grid Index (1in=500ft)



NORTH

3 1.5 0 3
Scale iMiles

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, SSURGO, and Burns & McDonell.

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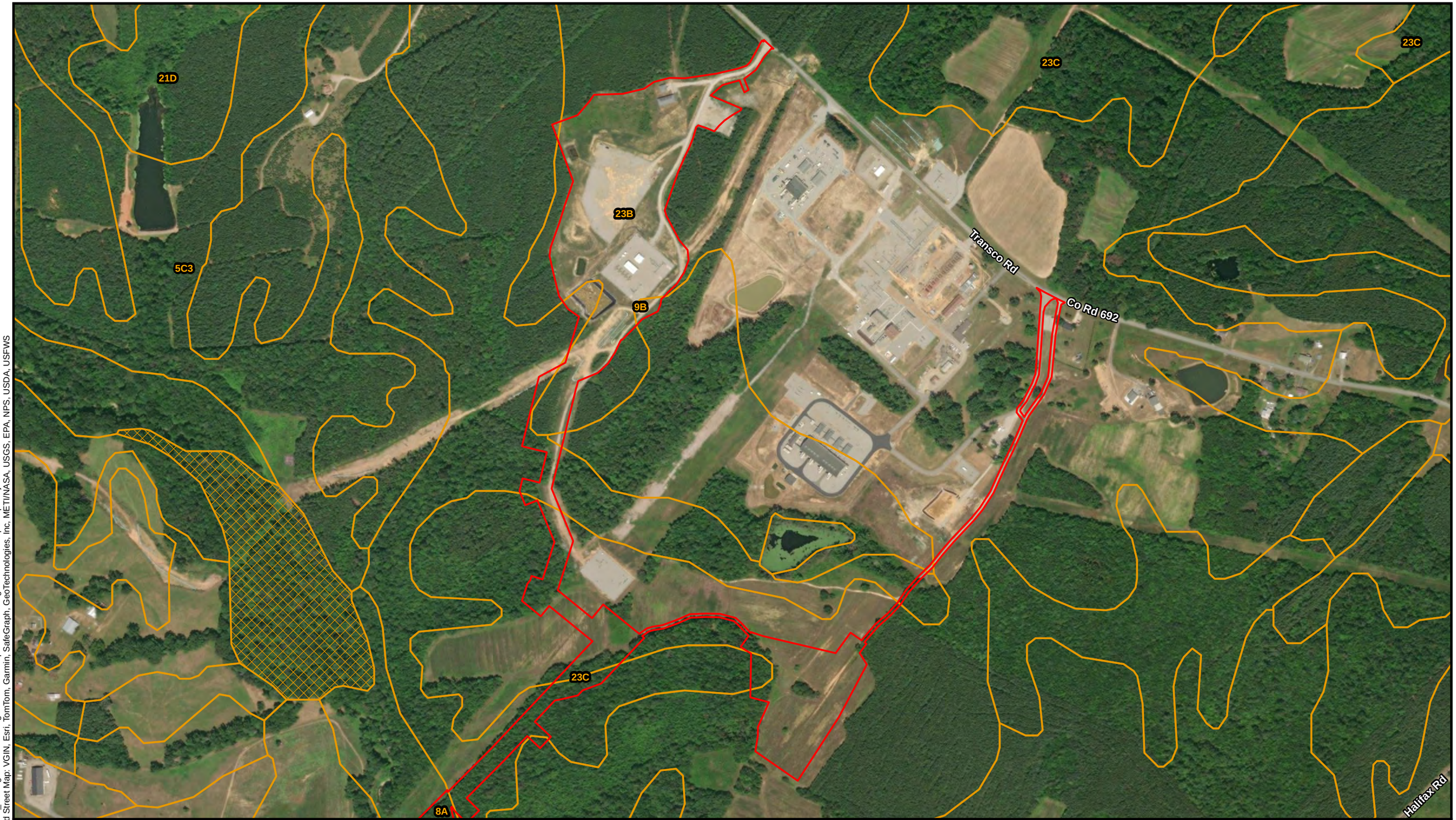


Project Area

SSURGO Soil Map Unit

Non-Hydric

Hydric

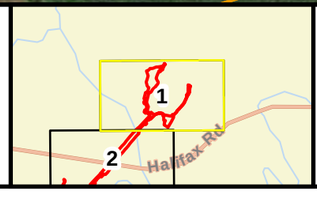
Mapunit Symbol - Mapunit Name (Hydric*)

23B - Clover fine sandy loam, 2 to 7 percent slopes

23C - Clover fine sandy loam, 7 to 15 percent slopes

8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded

9B - Lackstown fine sandy loam, 2 to 7 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 1 of 26

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Source: ESRI, SSURGO, and Burns & McDonell.

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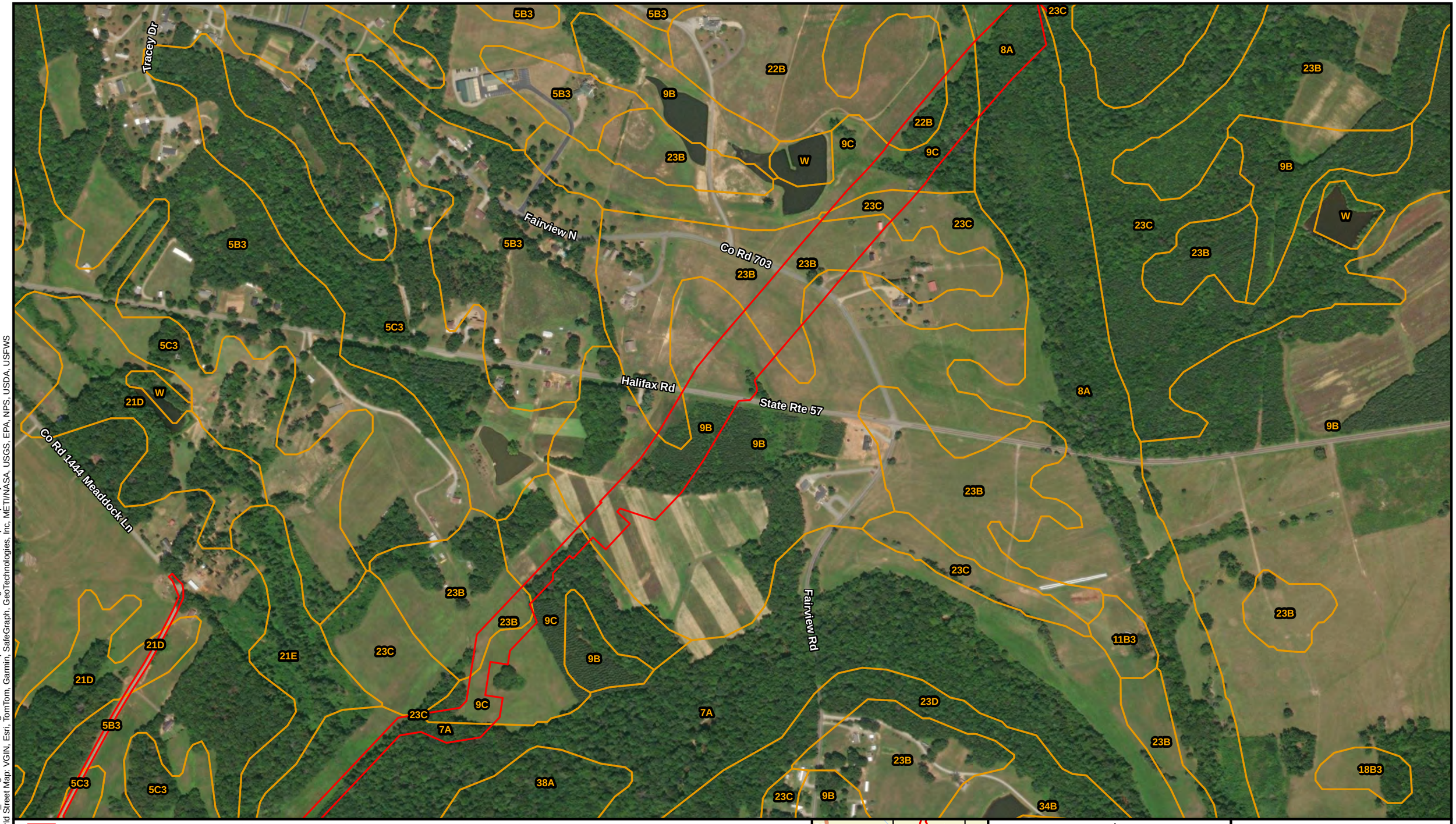


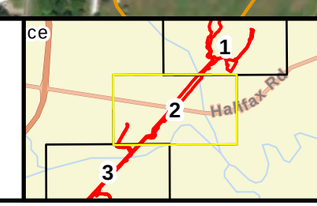
Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
22B - Bentley sandy loam, 2 to 7 percent slopes
23B - Clover fine sandy loam, 2 to 7 percent slopes
23C - Clover fine sandy loam, 7 to 15 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded
7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded
8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded
9B - Lackstown fine sandy loam, 2 to 7 percent slopes
9C - Lackstown fine sandy loam, 7 to 15 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 2 of 26

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Source: ESRI, SSURGO, and Burns & McDonell.

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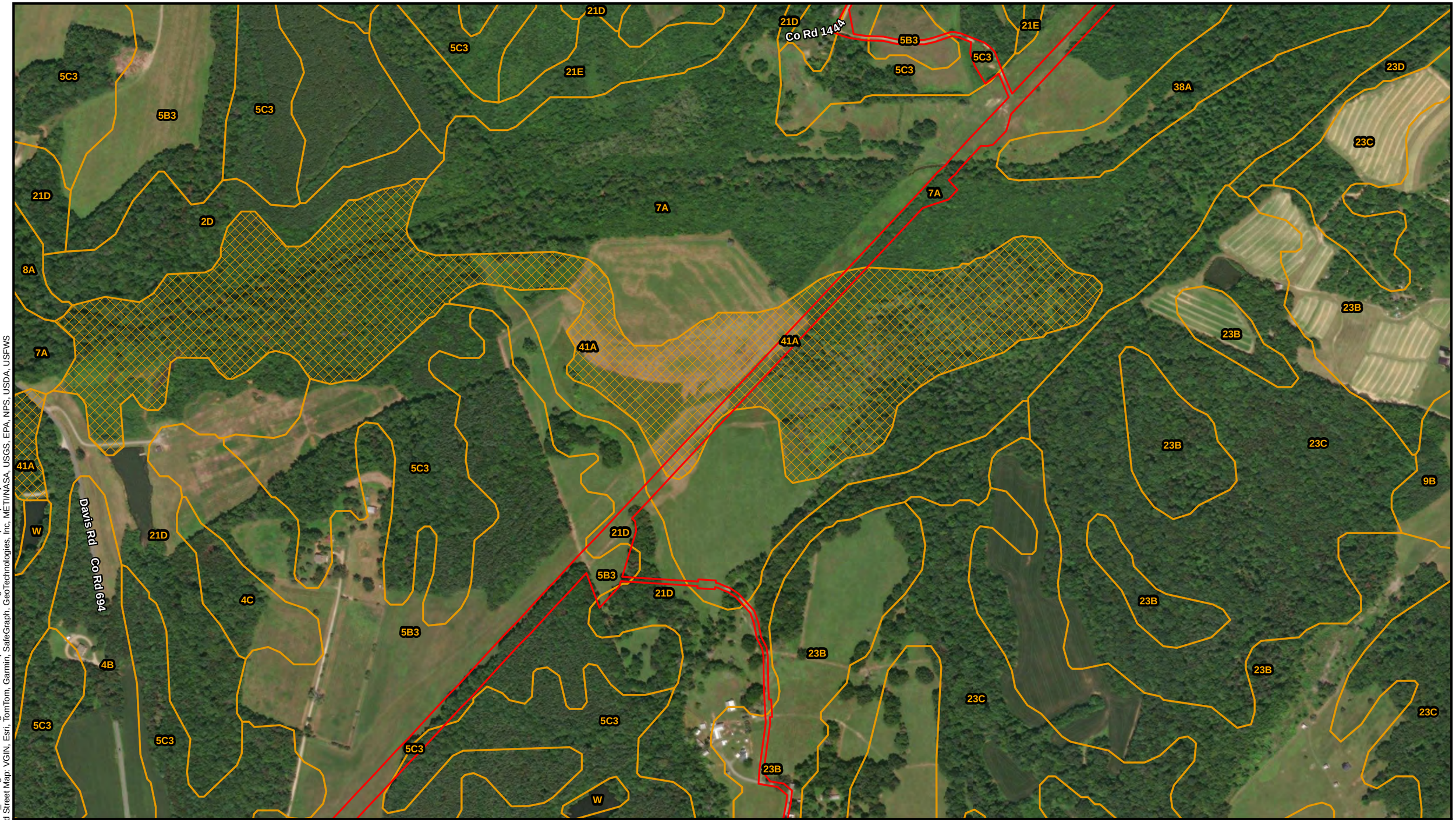

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, SSURGO, and Burns & McDonell.

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Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

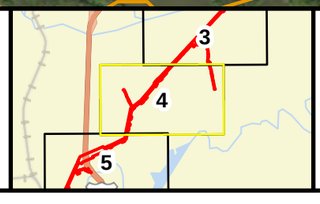
23B - Clover fine sandy loam, 2 to 7 percent slopes

23C - Clover fine sandy loam, 7 to 15 percent slopes

4B - Clifford sandy loam, 2 to 7 percent slopes

5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded

5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 4 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

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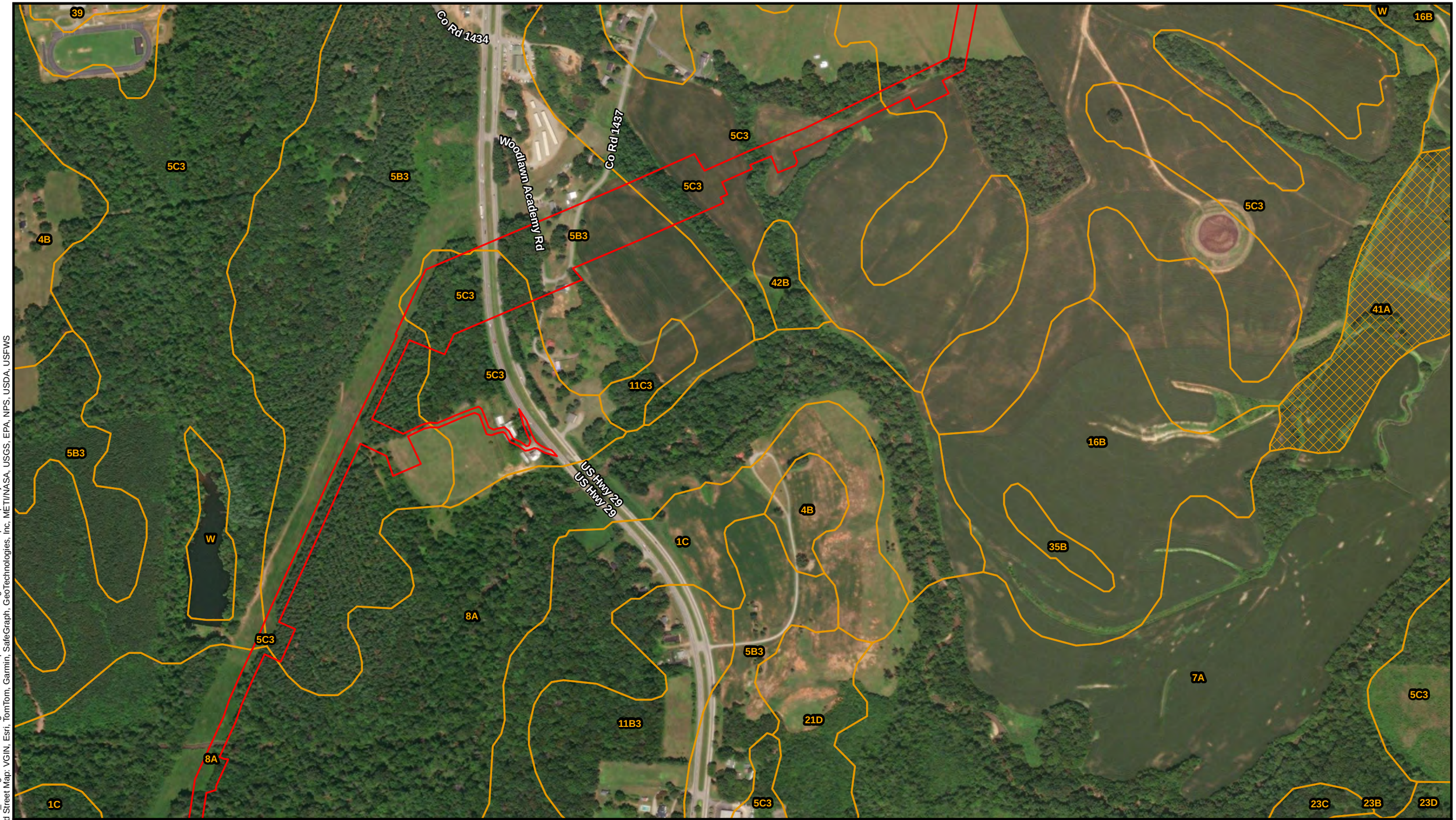


Project Area

SSURGO Soil Map Unit

Non-Hydric

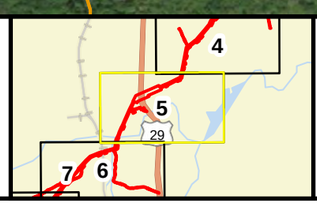
Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded

5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded

8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

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Source: ESRI, SSURGO, and Burns & McDonell.

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Project Area

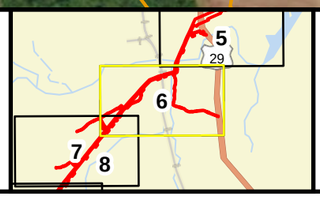
SSURGO Soil Map Unit

Non-Hydric

Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

1B - Nathalie sandy loam, 2 to 7 percent slopes
1C - Nathalie sandy loam, 7 to 15 percent slopes
23B - Clover fine sandy loam, 2 to 7 percent slopes
39 - Udorthents, loamy, 0 to 15 percent slopes
4B - Clifford sandy loam, 2 to 7 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded
8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded
9B - Lackstown fine sandy loam, 2 to 7 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 6 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

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Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

1B - Nathalie sandy loam, 2 to 7 percent slopes
21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
39 - Udorthents, loamy, 0 to 15 percent slopes
4B - Clifford sandy loam, 2 to 7 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded

Dry Fork

NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 7 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

Issued: 12/2/2024

Project Area

SSURGO Soil Map Unit

Non-Hydric

Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes

21E - Poplar Forest fine sandy loam, 25 to 45 percent slopes

4B - Clifford sandy loam, 2 to 7 percent slopes

5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded

5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, SSURGO, and Burns & McDonell.

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Project Area

SSURGO Soil Map Unit

Non-Hydric

Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes

21E - Poplar Forest fine sandy loam, 25 to 45 percent slopes

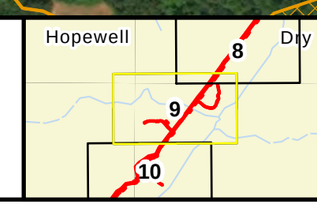
4B - Clifford sandy loam, 2 to 7 percent slopes

4C - Clifford sandy loam, 7 to 15 percent slopes

5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded

5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded

8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 9 of 26

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Source: ESRI, SSURGO, and Burns & McDonell.

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Project Area

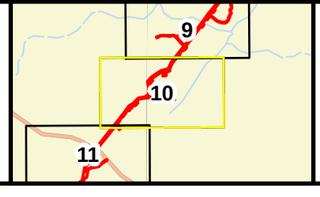
SSURGO Soil Map Unit

Non-Hydric

Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

11B3 - Minnieville clay loam, 2 to 7 percent slopes, severely eroded
11C3 - Minnieville clay loam, 7 to 15 percent slopes, severely eroded
21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
4B - Clifford sandy loam, 2 to 7 percent slopes
4C - Clifford sandy loam, 7 to 15 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 10 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

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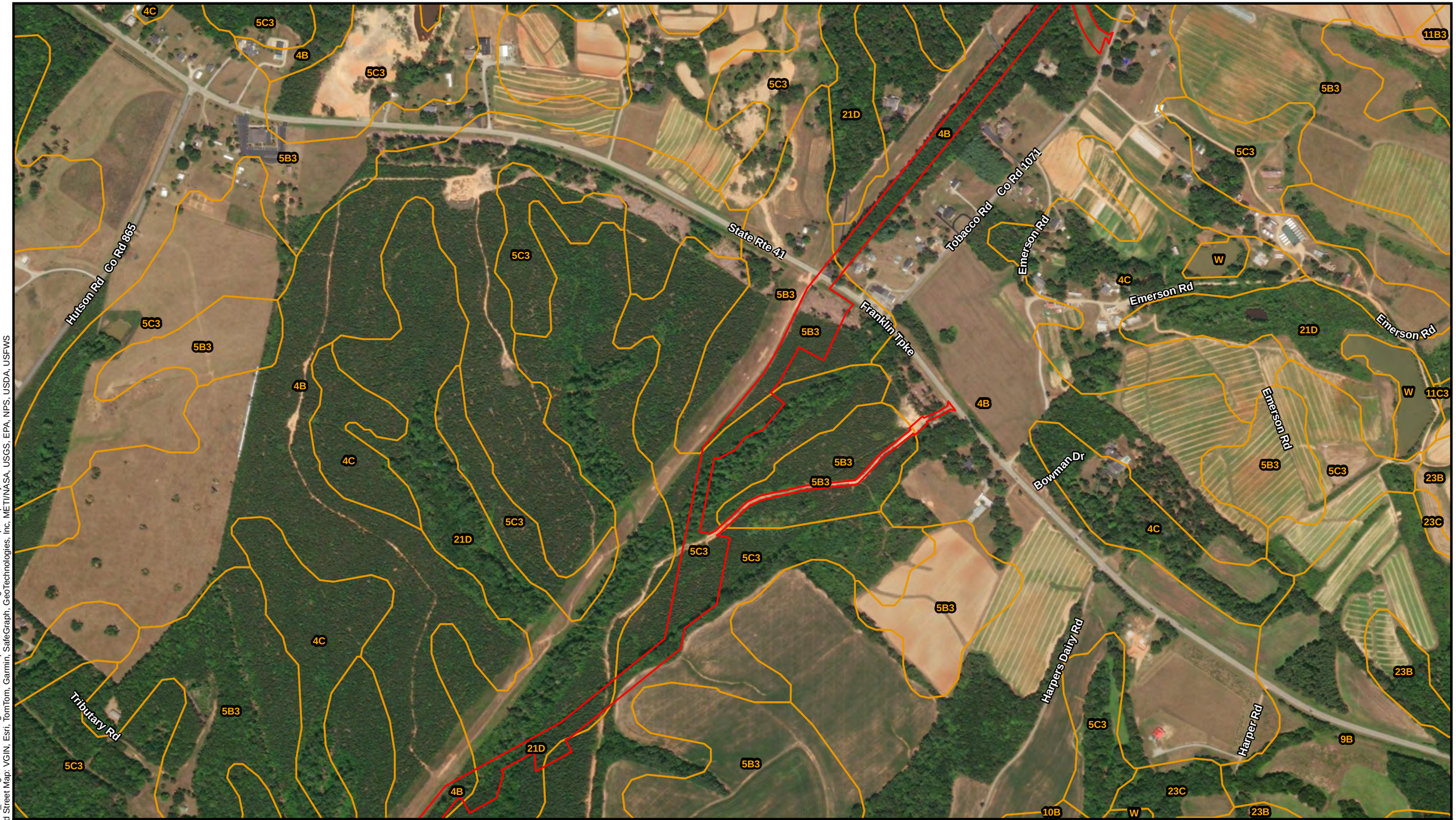


Project Area

SSURGO Soil Map Unit

Non-Hydric

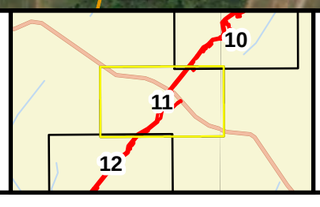
Mapunit Symbol - Mapunit Name (Hydric*)

21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes

4B - Clifford sandy loam, 2 to 7 percent slopes

5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded

5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, SSURGO, and Burns & McDonell.

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Project Area

SSURGO Soil Map Unit

Non-Hydric

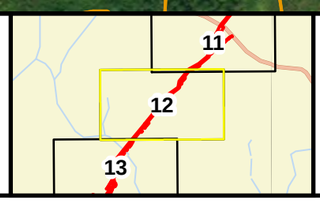
Mapunit Symbol - Mapunit Name (Hydric*)

21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes

4B - Clifford sandy loam, 2 to 7 percent slopes

5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded

5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 12 of 26

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Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

17B - Yadkin loam, 2 to 7 percent slopes
18C3 - Yadkin clay loam, 7 to 15 percent slopes, severely eroded
21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded
8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded

12
13
15

NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, SSURGO, and Burns & McDonell.

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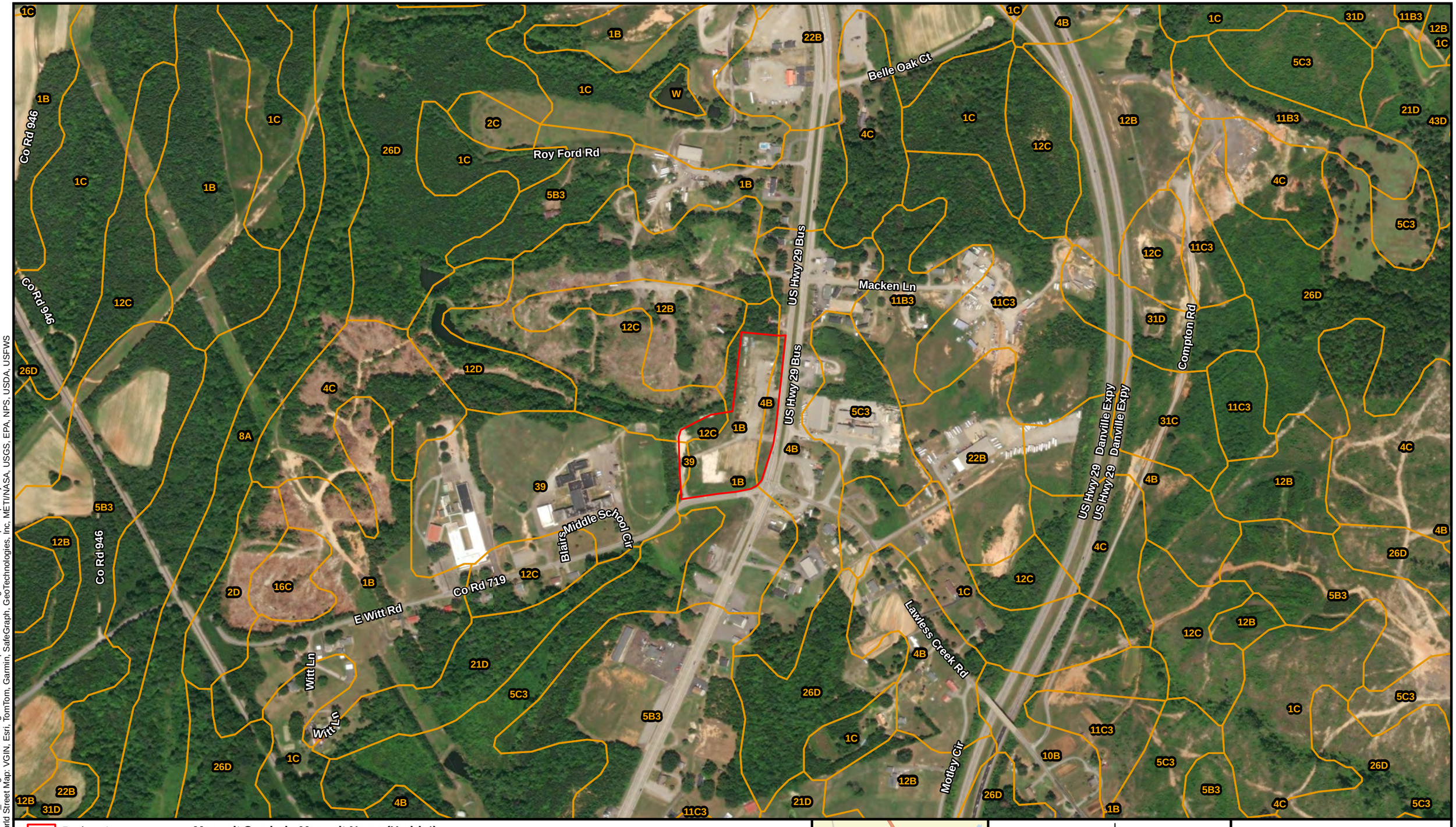


Project Area

SSURGO Soil Map Unit

Non-Hydric

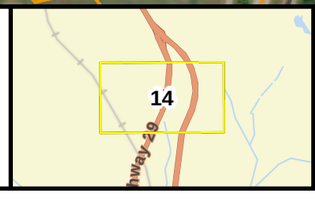
Mapunit Symbol - Mapunit Name (Hydric*)

12C - Enott fine sandy loam, 7 to 15 percent slopes

1B - Nathalie sandy loam, 2 to 7 percent slopes

39 - Udorthents, loamy, 0 to 15 percent slopes

4B - Clifford sandy loam, 2 to 7 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, SSURGO, and Burns & McDonell.

Issued: 12/2/2024

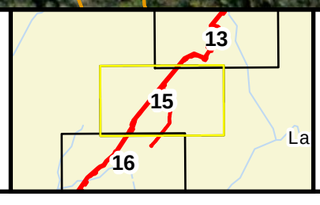
Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

11B3 - Minnieville clay loam, 2 to 7 percent slopes, severely eroded
11C3 - Minnieville clay loam, 7 to 15 percent slopes, severely eroded
21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
23B - Clover fine sandy loam, 2 to 7 percent slopes
23C - Clover fine sandy loam, 7 to 15 percent slopes
4B - Clifford sandy loam, 2 to 7 percent slopes
4C - Clifford sandy loam, 7 to 15 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded
8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded
9C - Lackstown fine sandy loam, 7 to 15 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, SSURGO, and Burns & McDonell.

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Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Project Area

SSURGO Soil Map Unit

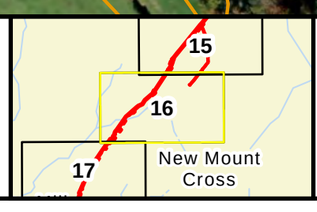
Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

23B - Clover fine sandy loam, 2 to 7 percent slopes

23C - Clover fine sandy loam, 7 to 15 percent slopes

5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, SSURGO, and Burns & McDonell.

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Project Area

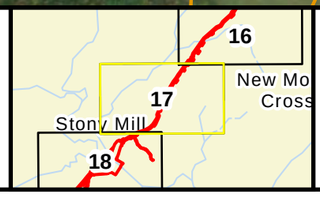
SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

23B - Clover fine sandy loam, 2 to 7 percent slopes

23C - Clover fine sandy loam, 7 to 15 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 17 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

Issued: 12/2/2024

Project Area

SSURGO Soil Map Unit

Non-Hydric

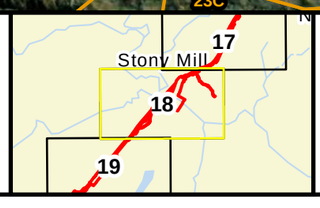
Mapunit Symbol - Mapunit Name (Hydric*)

23B - Clover fine sandy loam, 2 to 7 percent slopes

23C - Clover fine sandy loam, 7 to 15 percent slopes

23D - Clover fine sandy loam, 15 to 25 percent slopes

W - Water



NORTH

500 250 0 500

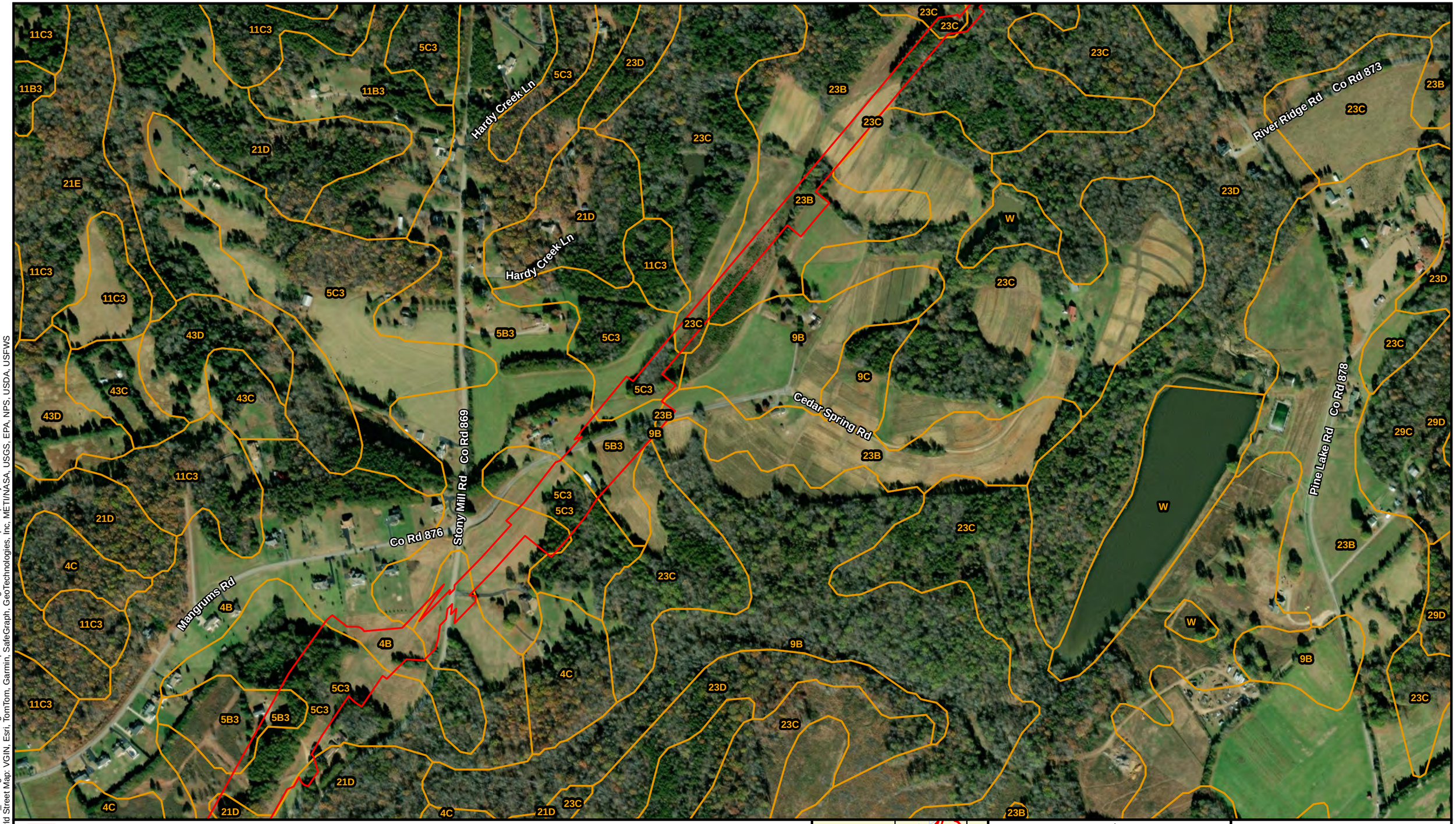
Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment
Project
Pittsylvania County, Virginia
Page 18 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

Issued: 12/2/2024

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS



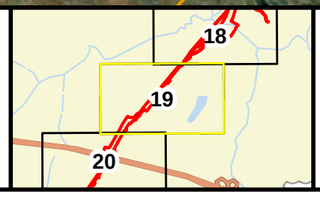
Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
23B - Clover fine sandy loam, 2 to 7 percent slopes
23C - Clover fine sandy loam, 7 to 15 percent slopes
4B - Clifford sandy loam, 2 to 7 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded
9B - Lackstown fine sandy loam, 2 to 7 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, SSURGO, and Burns & McDonell.

Issued: 12/2/2024

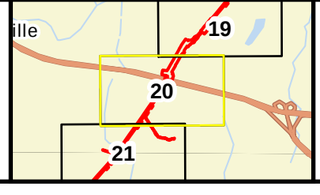
Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
4B - Clifford sandy loam, 2 to 7 percent slopes
4C - Clifford sandy loam, 7 to 15 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded
9B - Lackstown fine sandy loam, 2 to 7 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 20 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

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Service Layer Credits: World Street Map: State of North Carolina DOT, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

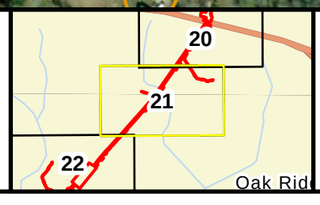
Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
23B - Clover fine sandy loam, 2 to 7 percent slopes
23C - Clover fine sandy loam, 7 to 15 percent slopes
23D - Clover fine sandy loam, 15 to 25 percent slopes
29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony
29D - Pinkston-Clover complex, 15 to 35 percent slopes, very stony
4B - Clifford sandy loam, 2 to 7 percent slopes
5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded
9B - Lackstown fine sandy loam, 2 to 7 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 21 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

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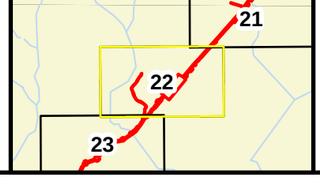
Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

11C3 - Minnieville clay loam, 7 to 15 percent slopes, severely eroded
21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes
23B - Clover fine sandy loam, 2 to 7 percent slopes
23C - Clover fine sandy loam, 7 to 15 percent slopes
23D - Clover fine sandy loam, 15 to 25 percent slopes
28C - Pinkston cobbly sandy loam, 7 to 15 percent slopes
29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony
29D - Pinkston-Clover complex, 15 to 35 percent slopes, very stony
29E - Pinkston-Clover complex, 35 to 50 percent slopes, very stony
5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 22 of 26

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: State of North Carolina DOT, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Source: ESRI, SSURGO, and Burns & McDonell.

Issued: 12/2/2024

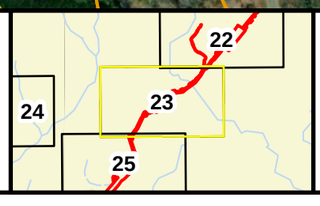
Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

23B - Clover fine sandy loam, 2 to 7 percent slopes
23C - Clover fine sandy loam, 7 to 15 percent slopes
23D - Clover fine sandy loam, 15 to 25 percent slopes
29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony
29E - Pinkston-Clover complex, 35 to 50 percent slopes, very stony
34B - Sheva fine sandy loam, 2 to 7 percent slopes
9B - Lackstown fine sandy loam, 2 to 7 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 23 of 26

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, SSURGO, and Burns & McDonell.

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Project Area

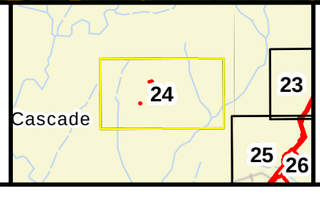
SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

23B - Clover fine sandy loam, 2 to 7 percent slopes

23C - Clover fine sandy loam, 7 to 15 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 24 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

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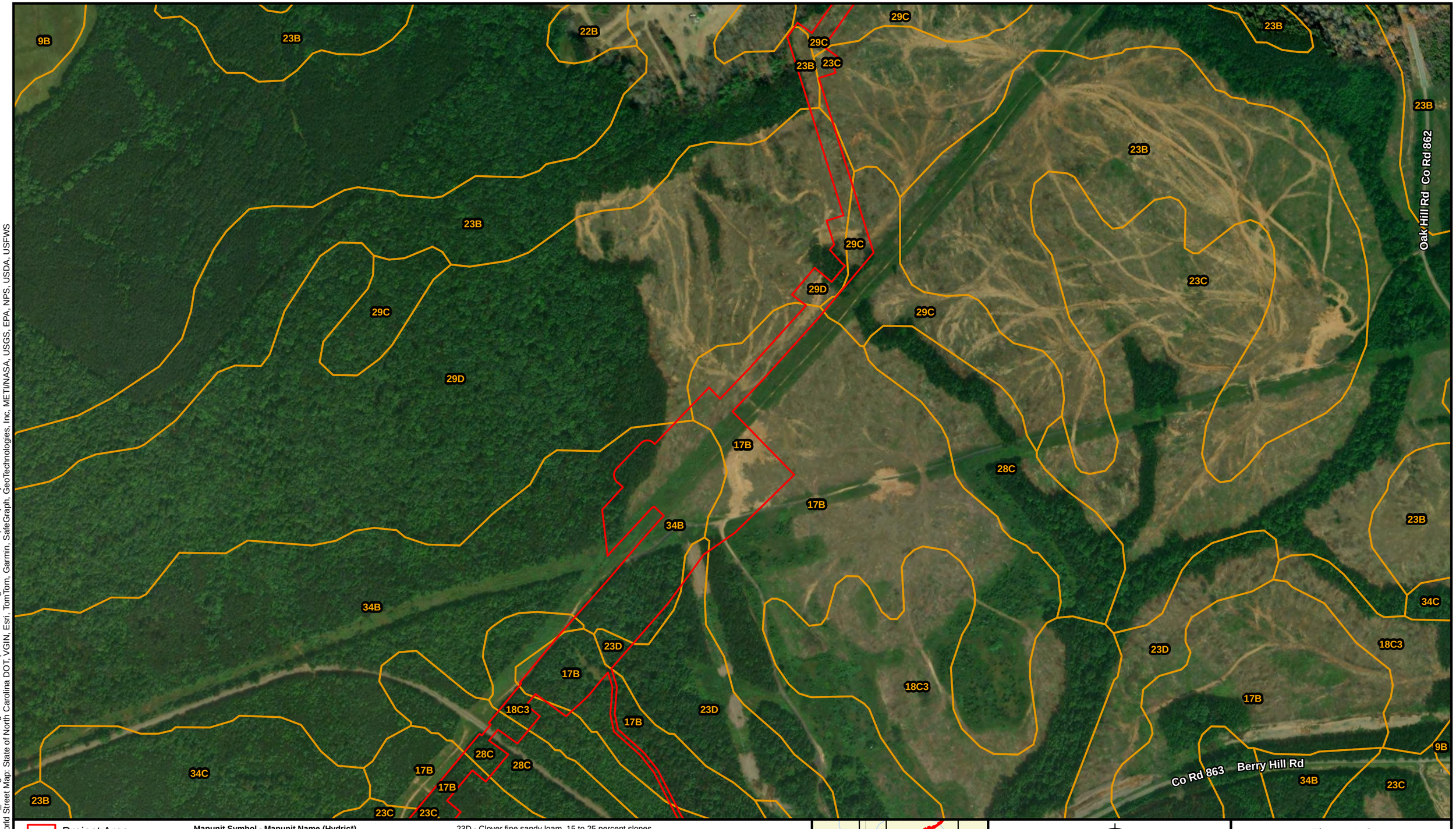


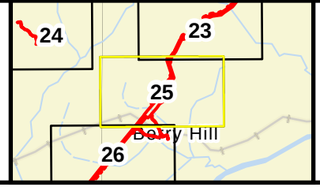
Project Area

SSURGO Soil Map Unit

Non-Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

17B - Yadkin loam, 2 to 7 percent slopes
18C3 - Yadkin clay loam, 7 to 15 percent slopes, severely eroded
23B - Clover fine sandy loam, 2 to 7 percent slopes
23C - Clover fine sandy loam, 7 to 15 percent slopes
23D - Clover fine sandy loam, 15 to 25 percent slopes
28C - Pinkston cobbly sandy loam, 7 to 15 percent slopes
29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony
29D - Pinkston-Clover complex, 15 to 35 percent slopes, very stony
34B - Sheva fine sandy loam, 2 to 7 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 25 of 26

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, SSURGO, and Burns & McDonell.

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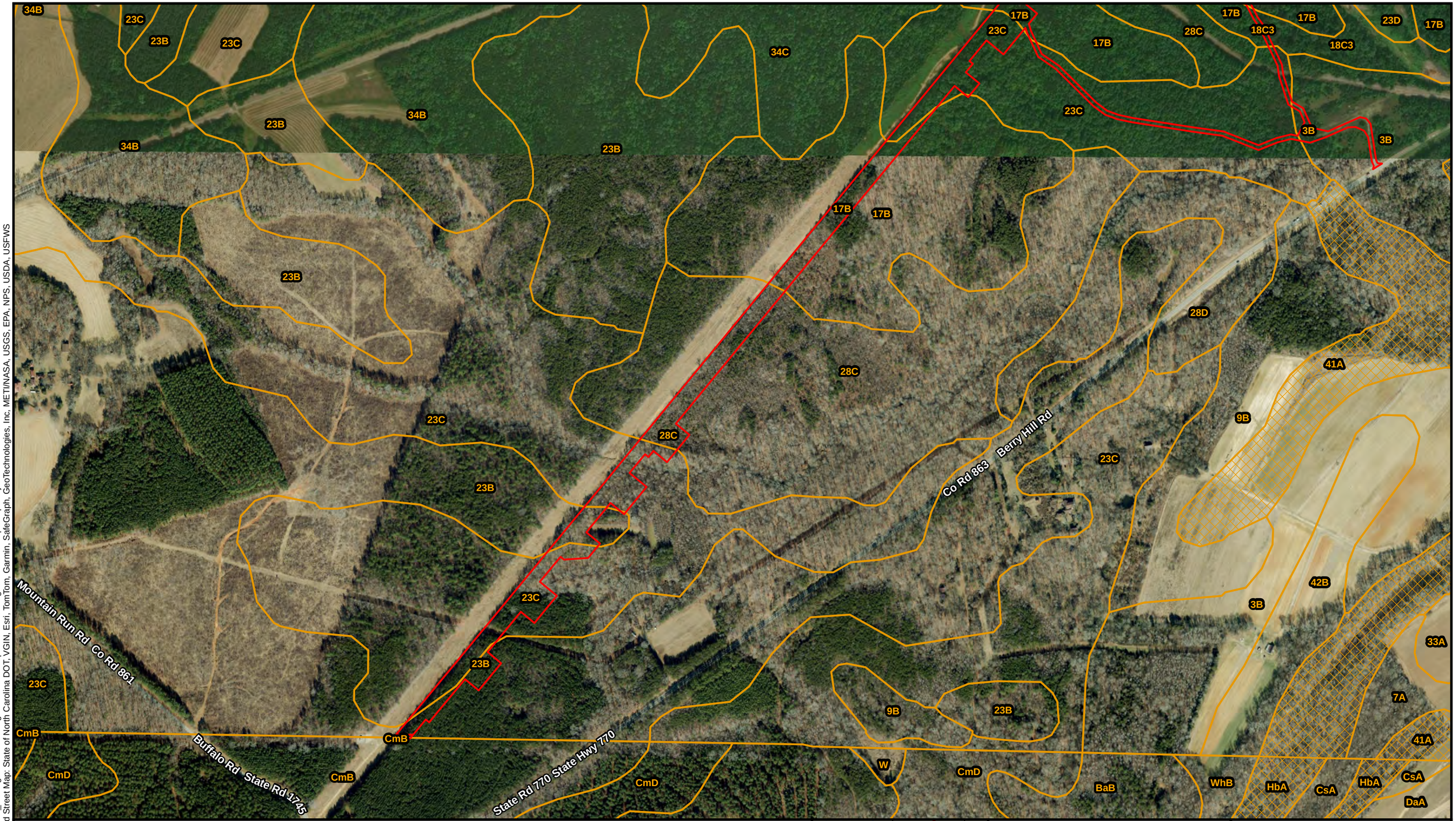


Project Area

SSURGO Soil Map Unit

Non-Hydric

Hydric

Mapunit Symbol - Mapunit Name (Hydric*)

17B - Yadkin loam, 2 to 7 percent slopes

18C3 - Yadkin clay loam, 7 to 15 percent slopes, severely eroded

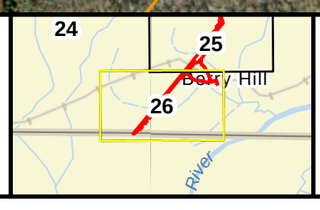
23B - Clover fine sandy loam, 2 to 7 percent slopes

23C - Clover fine sandy loam, 7 to 15 percent slopes

28C - Pinkston cobbly sandy loam, 7 to 15 percent slopes

3B - Delanco fine sandy loam, 2 to 7 percent slopes

CmB - Clover sandy loam, 2 to 8 percent slopes



NORTH

500 250 0 500

Scale in Feet

Figure A-3
SSURGO Soils Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 26 of 26

Source: ESRI, SSURGO, and Burns & McDonell.

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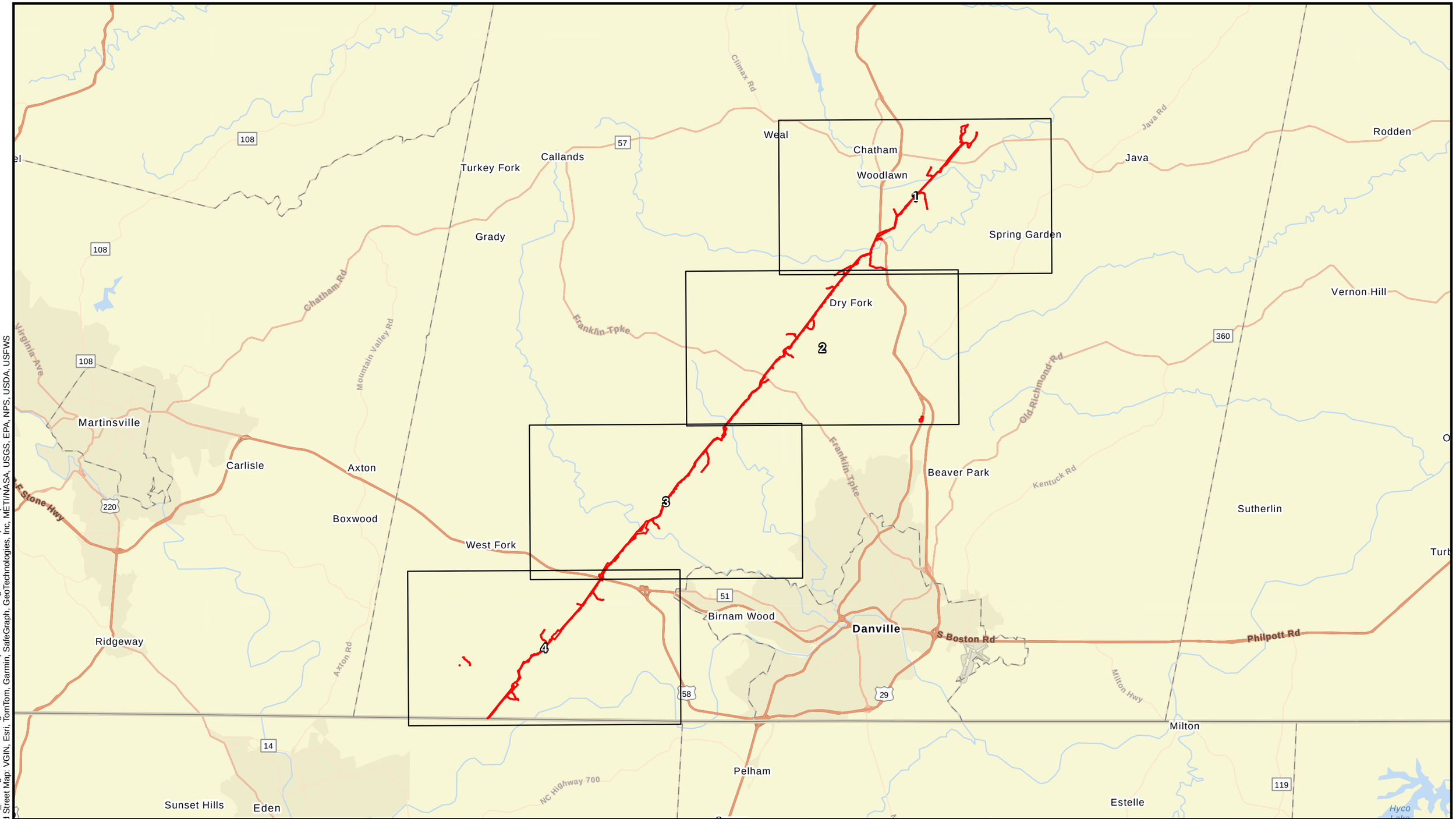
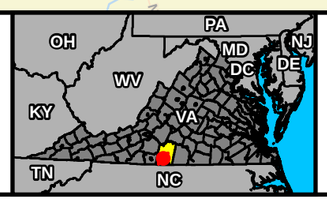
Service Layer Credits: World Street Map: State of North Carolina DOT, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS



Project Area

Grid Index (1in=3000ft)



NORTH

3 1.5 0 3

Scale Miles

Figure A-4
NWI NHD FEMA Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Source: ESRI, NWI, NHD, FEMA, and Burns & McDonnell.

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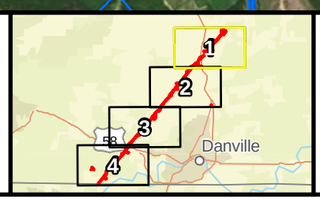
Callands Rd
State Rte 57
Depot St
Whites Branch
Main St
US Hwy 29 Bus
S Main St
Tanyard Branch
Little Cherrystone Creek
Halifax Rd
State Rte 57
Green Rock Branch
Cherrystone Creek
US Hwy 29
US Hwy 29
Lick Branch
Banister River
Shockoe Creek
Johns Run
Sweden Fork
Sweden Fork

Project Area
NHD Flowline
NHD Area
Floodplain
Floodway
NWI Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine



NORTH

3,000 1,500 0 3,000

Scale in Feet

Figure A-4
NWI NHD FEMA Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 1 of 4

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Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Source: ESRI, NWI, NHD, FEMA, and Burns & McDonnell.

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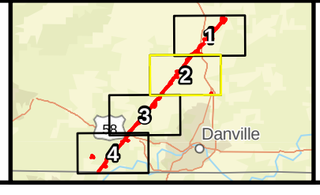
Tompkins Branch
Pudding Creek
White Oak Creek
State Rte 41
Franklin Tpke
Dry Fork
US Hwy 29
Sweden Fork
Sandy Creek
Fall Creek
US Hwy 29 Bus
Lawless Creek
Danville Expy
Sandy Creek
Dry Fork

Project Area
NHD Flowline
NHD Area
Floodplain
Floodway
NWI Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine



NORTH
3,000 1,500 0 3,000
Scale in Feet

Figure A-4
NWI NHD FEMA Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 2 of 4

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Source: ESRI, NWI, NHD, FEMA, and Burns & McDonnell.

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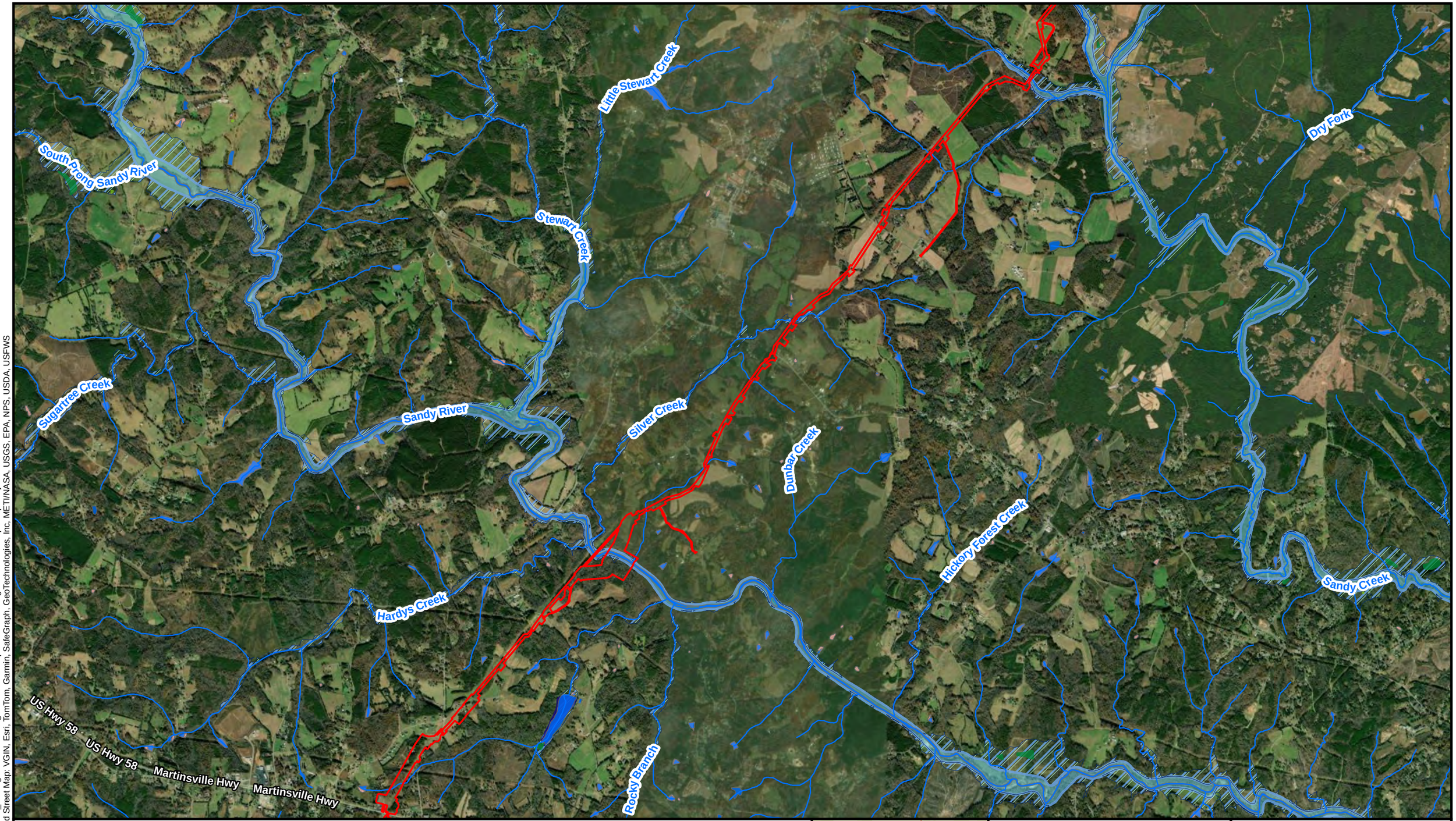

Figure A-4
NWI NHD FEMA Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 3 of 4

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Source: ESRI, NWI, NHD, FEMA, and Burns & McDonnell.

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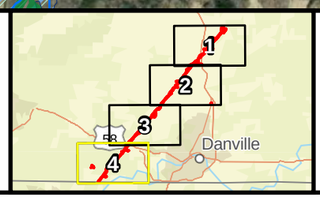
Martinsville Hwy
US Hwy 58
Martinsville Hwy
US Hwy 58
Rocky Branch
US Hwy 58 Bus
Danville Expy
Lick Fork
East Branch Cascade Creek
Motley Branch
Trayner Branch
McGuff Creek
Danville Expy
US Hwy 58
Childress Creek
Danville Expy
US Hwy 58
Cascade Creek
Mountain Run
Trotters Creek
Cascade Creek
Cow Branch
Dan River
White Oak Creek
Gant Rd
State Hwy 770

Project Area
NHD Flowline
NHD Area
Floodplain
Floodway
NWI Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine



NORTH
3,000 1,500 0 3,000
Scale in Feet

Figure A-4
NWI NHD FEMA Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 4 of 4

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: State of North Carolina DOT, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Source: ESRI, NWI, NHD, FEMA, and Burns & McDonnell.

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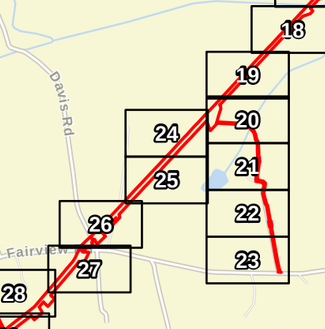
Project Area

Grid Index (1in=100ft)



NORTH

3,000 1,500 0 3,000

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 1 of 4

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Source: ESRI, and Burns & McDonell.

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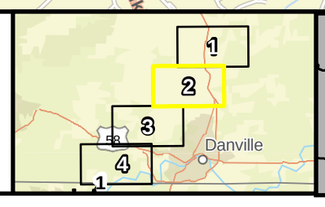
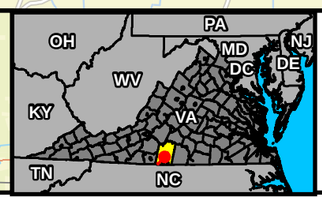
Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Project Area

Grid Index (1in=100ft)





NORTH

3,000 1,500 0 3,000

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 2 of 4

Source: ESRI, and Burns & McDonell.

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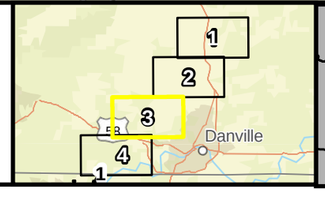
Project Area
Grid Index (1in=100ft)



NORTH

3,000 1,500 0 3,000

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 3 of 4

Source: ESRI, and Burns & McDonell.

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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: State of North Carolina DOT, VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Project Area
Grid Index (1in=100ft)

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 4 of 4

3,000 1,500 0 3,000
Scale in Feet

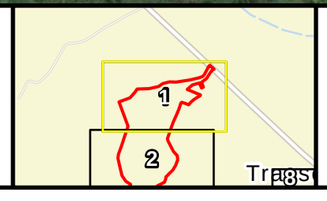
Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area

Wetland (W)

PUB



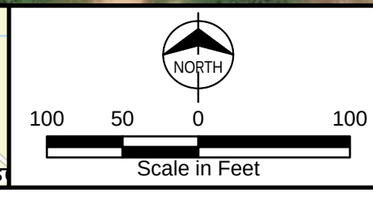


Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 1 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

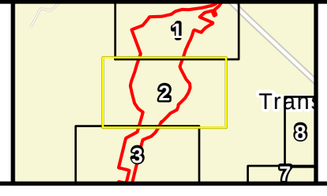
Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area

Wetland (W)

PUB



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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SP-A009

S-A005

Project Area

Sample Plot (SP)

Stream (S)

Intermittent

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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SP-A011

SP-A010

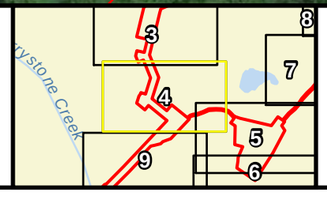
W-A004

Project Area

Sample Plot (SP)

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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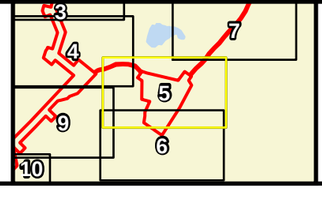
Project Area

Sample Plot (SP)

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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Transco Ln

Project Area

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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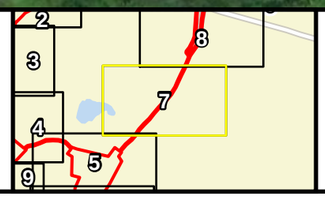
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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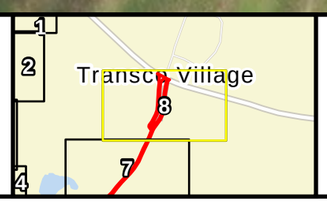
Transco Rd Co Rd 692

Transco Ln

Transco Ln

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 8 of 156

Source: ESRI, and Burns & McDonell.

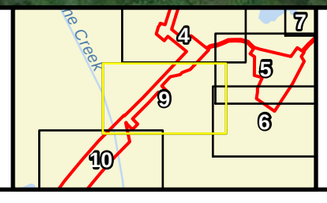
Issued: 12/2/2024

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PEM
PFO
PSS



NORTH

100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft
Source: ESRI, and Burns & McDonell.
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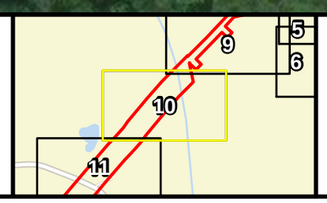
W-A003b
S-A004
W-A003a
SP-A005
SP-A006
W-A002
SP-A004
SP-A003
S-A002
S-A003
W-A001
SP-A002

Project Area
Sample Plot (SP)
Stream (S)
Intermittent
Perennial
Wetland (W)
PEM
PFO



NORTH
100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.
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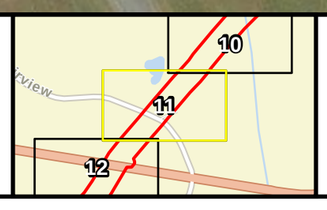
Project Area

Sample Plot (SP)

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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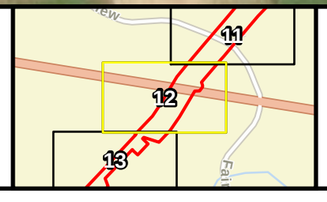
Project Area
Sample Plot (SP)

Wetland (W)
PEM

Stream (S)
Ephemeral
2018 Survey - Stream (Ephemeral)



NORTH
100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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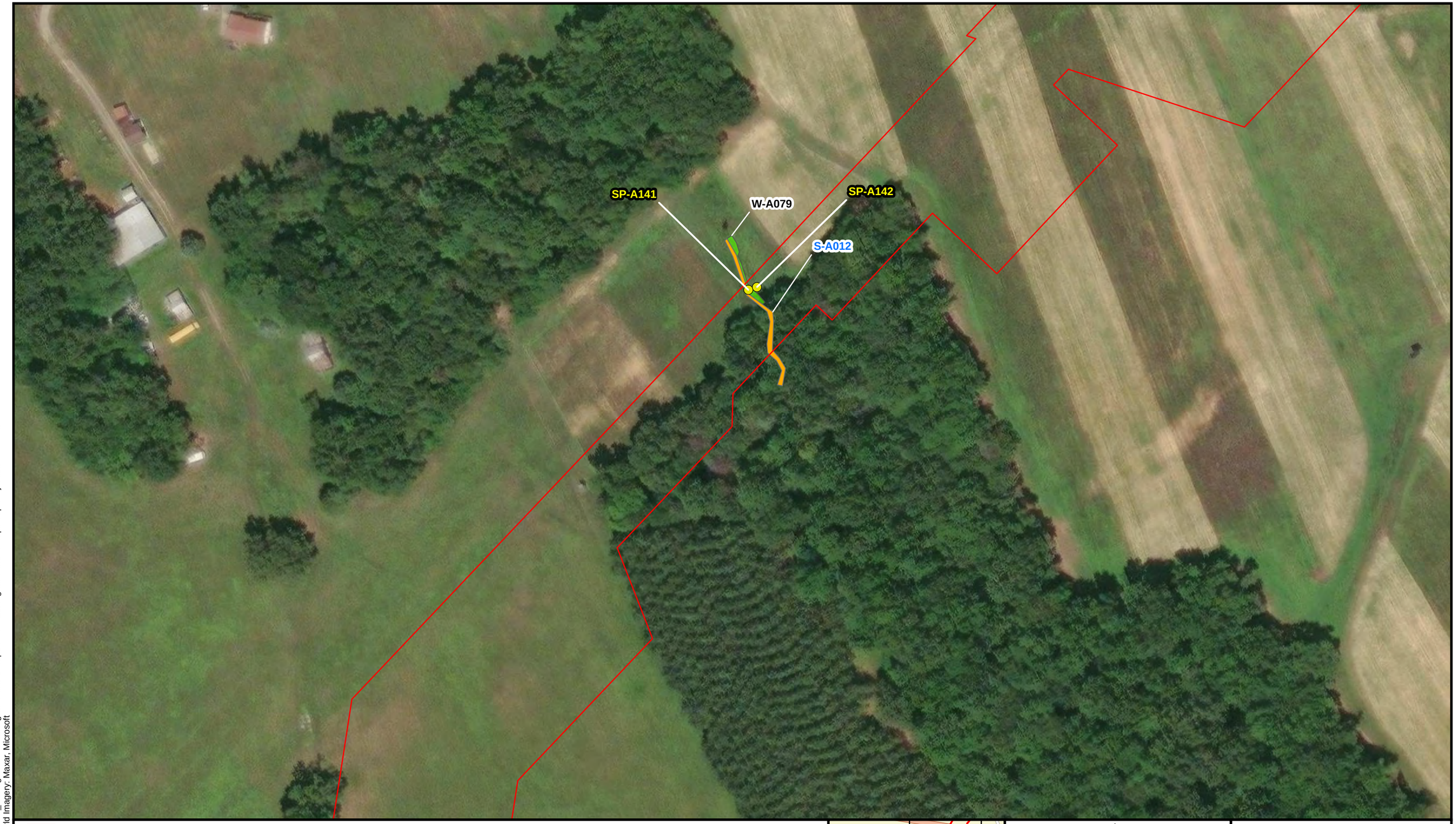


Project Area

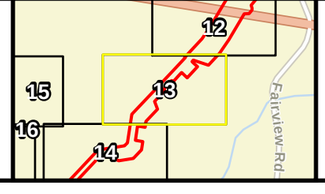
Sample Plot (SP)

Stream (S)

Intermittent

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 13 of 156

Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

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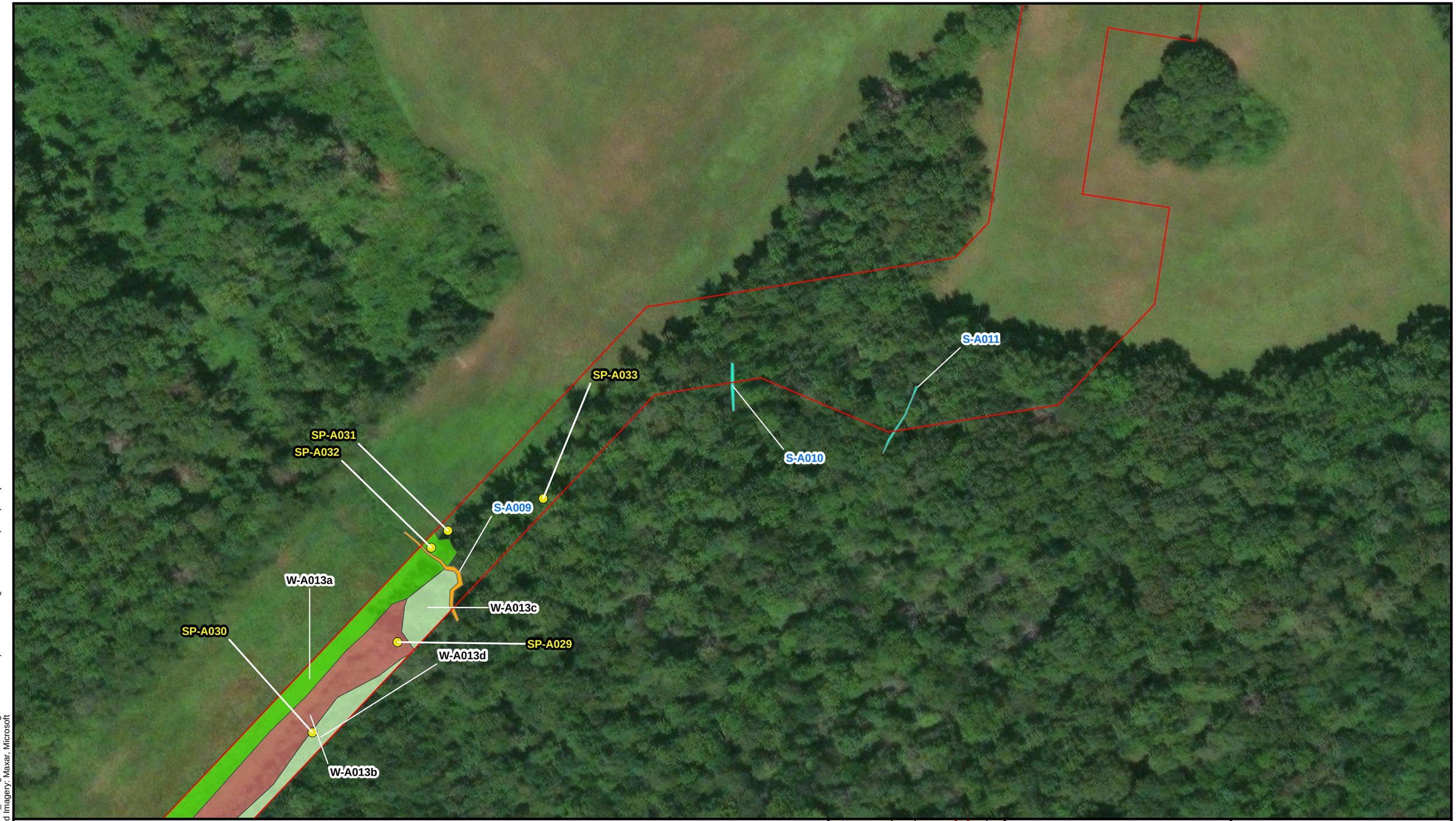
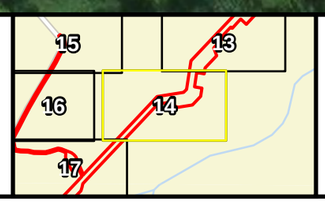


Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PEM
PFO
PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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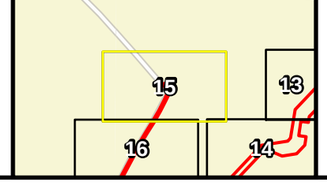
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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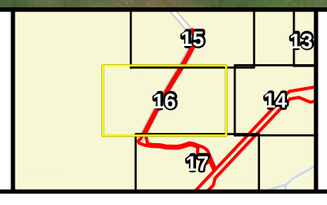
Service Layer Credits: World Imagery: Maxar, Microsoft

Go Rd 1444

Meaddock Ln

Project Area



100 50 0 100

Scale in Feet

NORTH

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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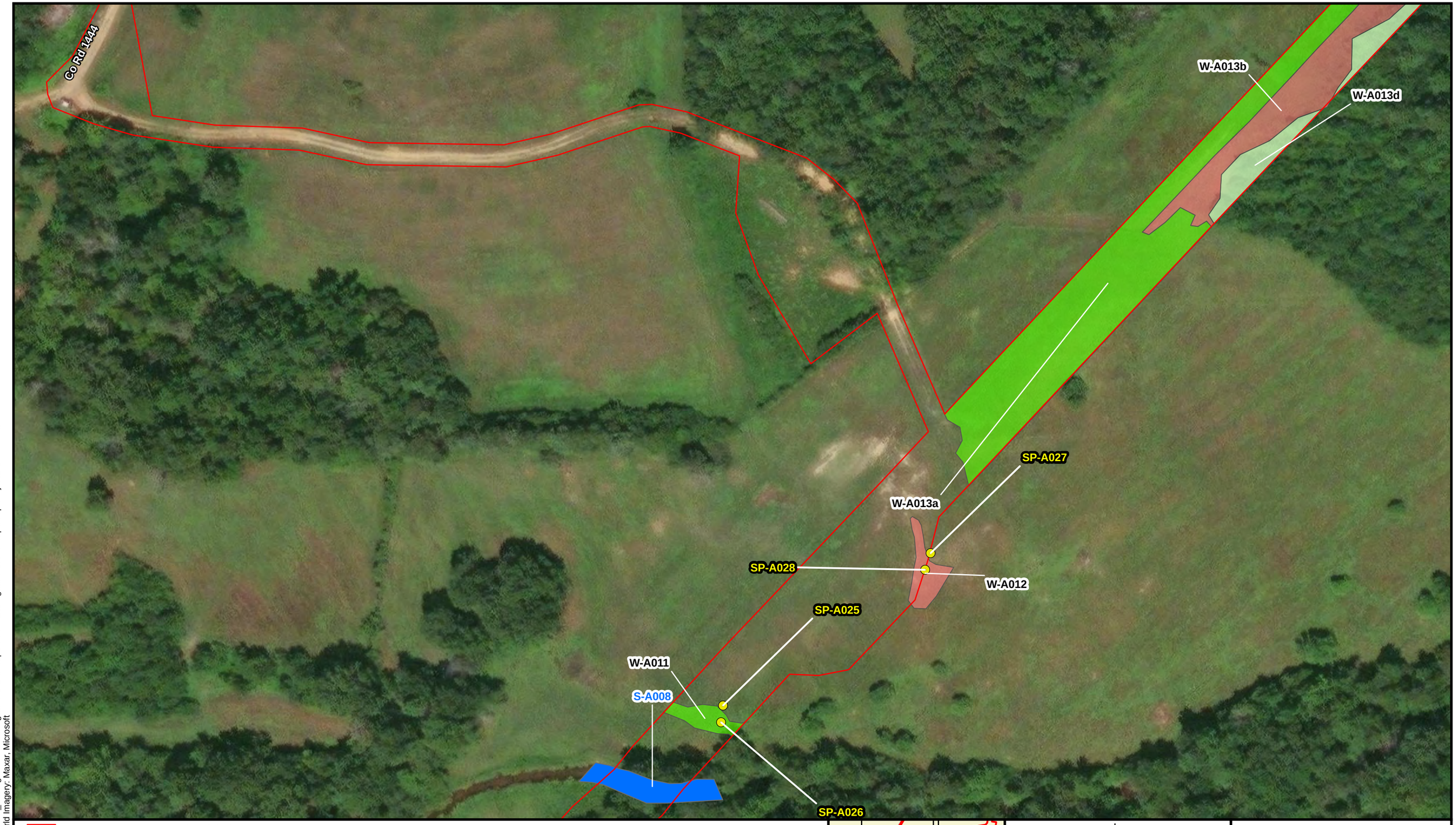
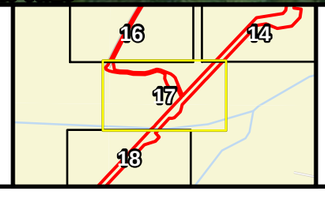


Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PEM
PFO
PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

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Source: ESRI, and Burns & McDonell.

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Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.
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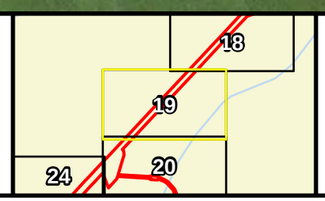
Project Area
Sample Plot (SP)

Wetland (W)
PEM
PFO
PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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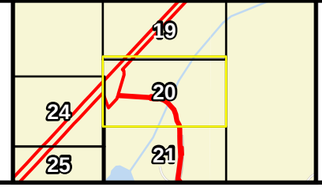
W-A050
W-A053
W-A009
SP-A143
S-A007
W-A008
W-A007
SP-A017
S-A007

Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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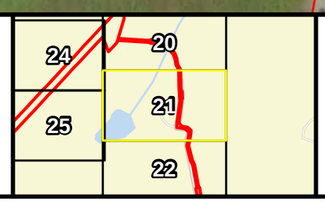
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Batterman Rd

Project Area

25 21 22 23

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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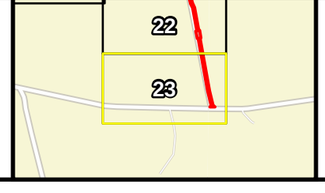
Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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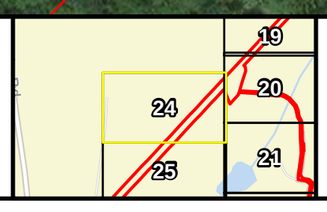
Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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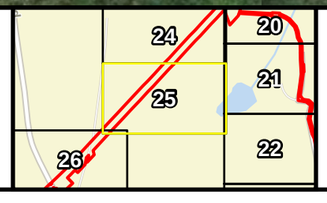
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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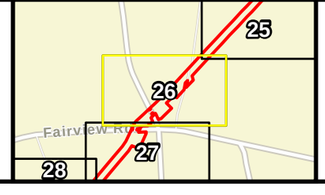
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area



NORTH

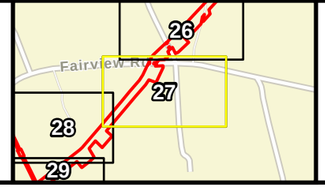
100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft
Source: ESRI, and Burns & McDonell.
Issued: 12/2/2024

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 27 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Co Rd 703

S-A018

Project Area

Stream (S)

Intermittent

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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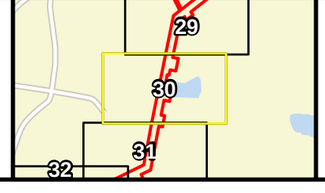
Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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Project Area

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 31 of 156

Source: ESRI, and Burns & McDonell.

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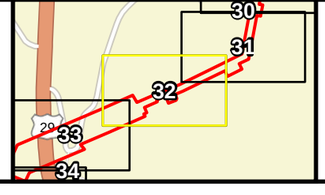
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PEM
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft
Source: ESRI, and Burns & McDonell.

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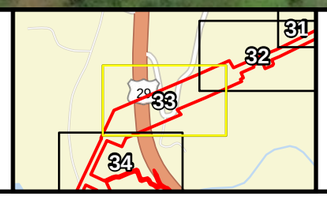
Project Area

Sample Plot (SP)

Stream (S)

Intermittent



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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SP-A153

S-D001

S-D001

US Hwy 29

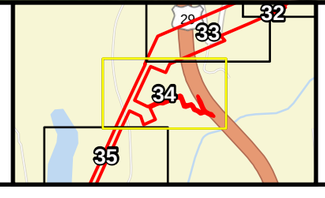
US Hwy 29

Project Area

Sample Plot (SP)

Stream (S)

Intermittent



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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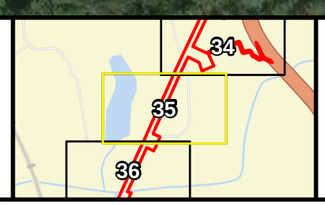
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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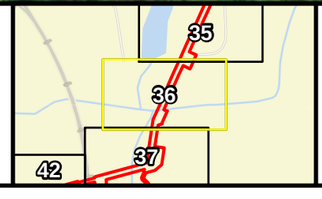
SP-A157a
S-B060
SP-A156
W-A073a
W-A073b
SP-A155
S-A020
W-A020
S-A021

Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Perennial

Wetland (W)
PEM
PFO



NORTH
100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.
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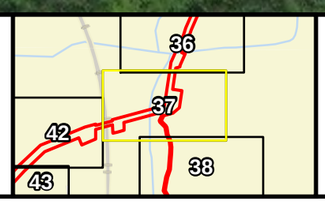
SP-A044
W-A020
SP-A043
S-A021
W-A021
SP-A045
SP-A046
SP-A049
SP-A152
S-A022
SP-A050
W-A023
W-A022
SP-A047
SP-A048

Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PFO



NORTH
100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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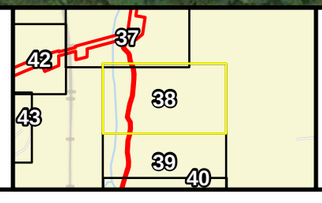
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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W-A024

SP-A051

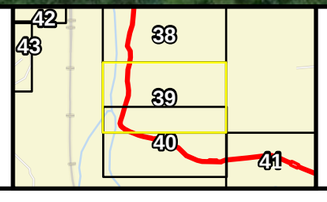
SP-A052

Project Area

Sample Plot (SP)

Wetland (W)

PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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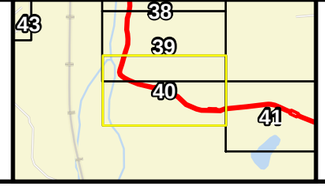
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area

Sample Plot (SP)

Wetland (W)

PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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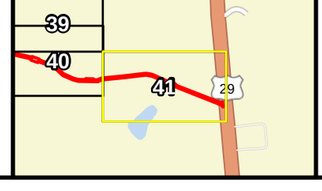
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

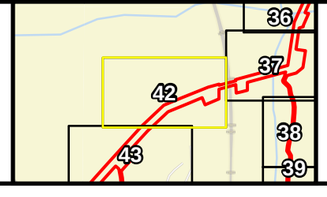
Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area

Stream (S)

Ephemeral



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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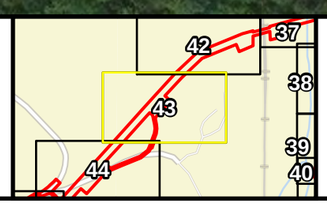
Project Area

Sample Plot (SP)

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 43 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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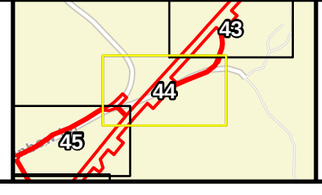
Project Area



100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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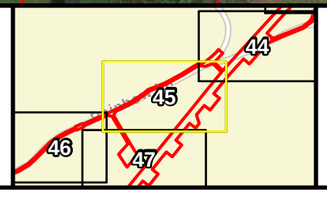
Project Area

Stream (S)

Ephemeral



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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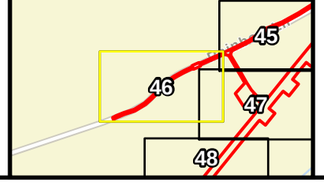
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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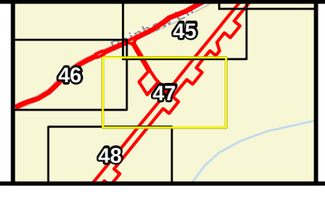
Project Area

Stream (S)

Ephemeral



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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S-A068

SP-A134

SP-A133

W-A070b

W-A069

Project Area

Sample Plot (SP)

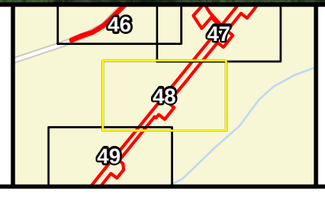
Stream (S)

Ephemeral

Wetland (W)

PEM

PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft
Source: ESRI, and Burns & McDonell.

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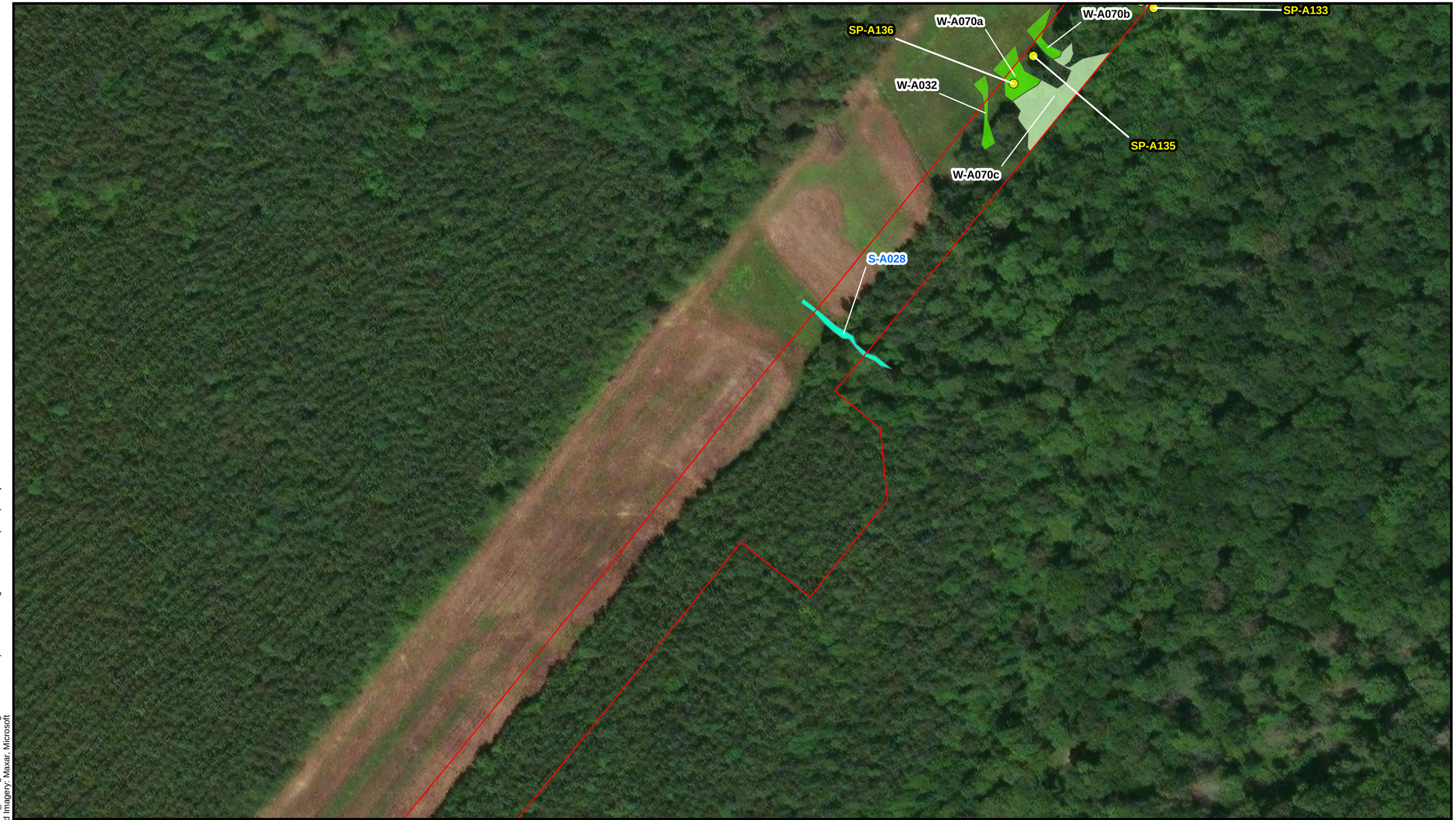
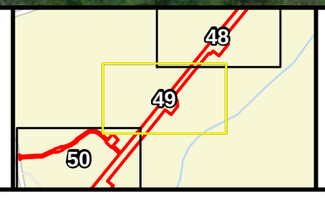


Project Area
Sample Plot (SP)

Stream (S)
Ephemeral

Wetland (W)
PEM
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

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Source: ESRI, and Burns & McDonell.

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S-A069

Co Rd 836 White Oak Cir

SP-A058

S-A027

W-A027

S-A026

SP-A057

Project Area

Sample Plot (SP)

Stream (S)

Intermittent

Perennial

Wetland (W)

PEM

49

50

51

Creek

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

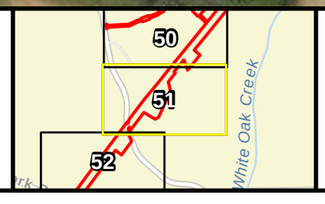
Issued: 12/2/2024

Project Area

Stream (S)

Intermittent

Perennial



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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Service Layer Credits: World Imagery: Maxar, Microsoft

White Oak Cir Co Rd 836

Dry Fork Rd Co Rd 718

Project Area

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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Dry Fork Rd Co Rd 718

SP-A055

S-A025

W-A026

SP-A056

Project Area

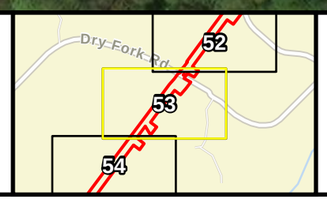
Sample Plot (SP)

Stream (S)

Intermittent

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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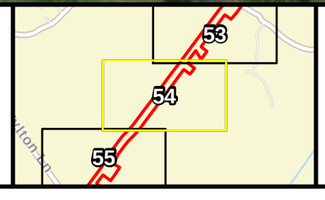
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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W-A025

SP-A054

S-A023

S-A024

SP-A053

Co Rd 1099 Hylton Ln

Project Area

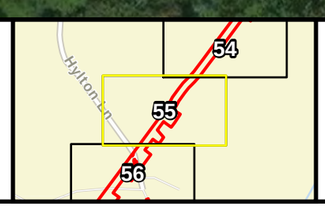
Sample Plot (SP)

Stream (S)

Intermittent

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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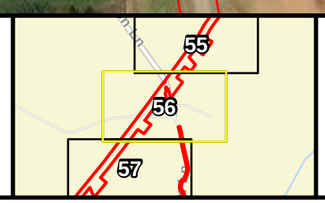
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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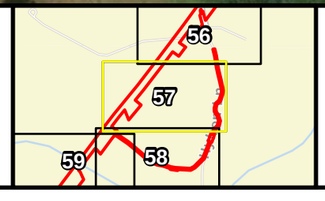
Project Area

Sample Plot (SP)

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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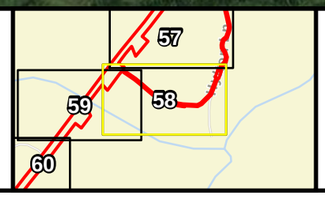
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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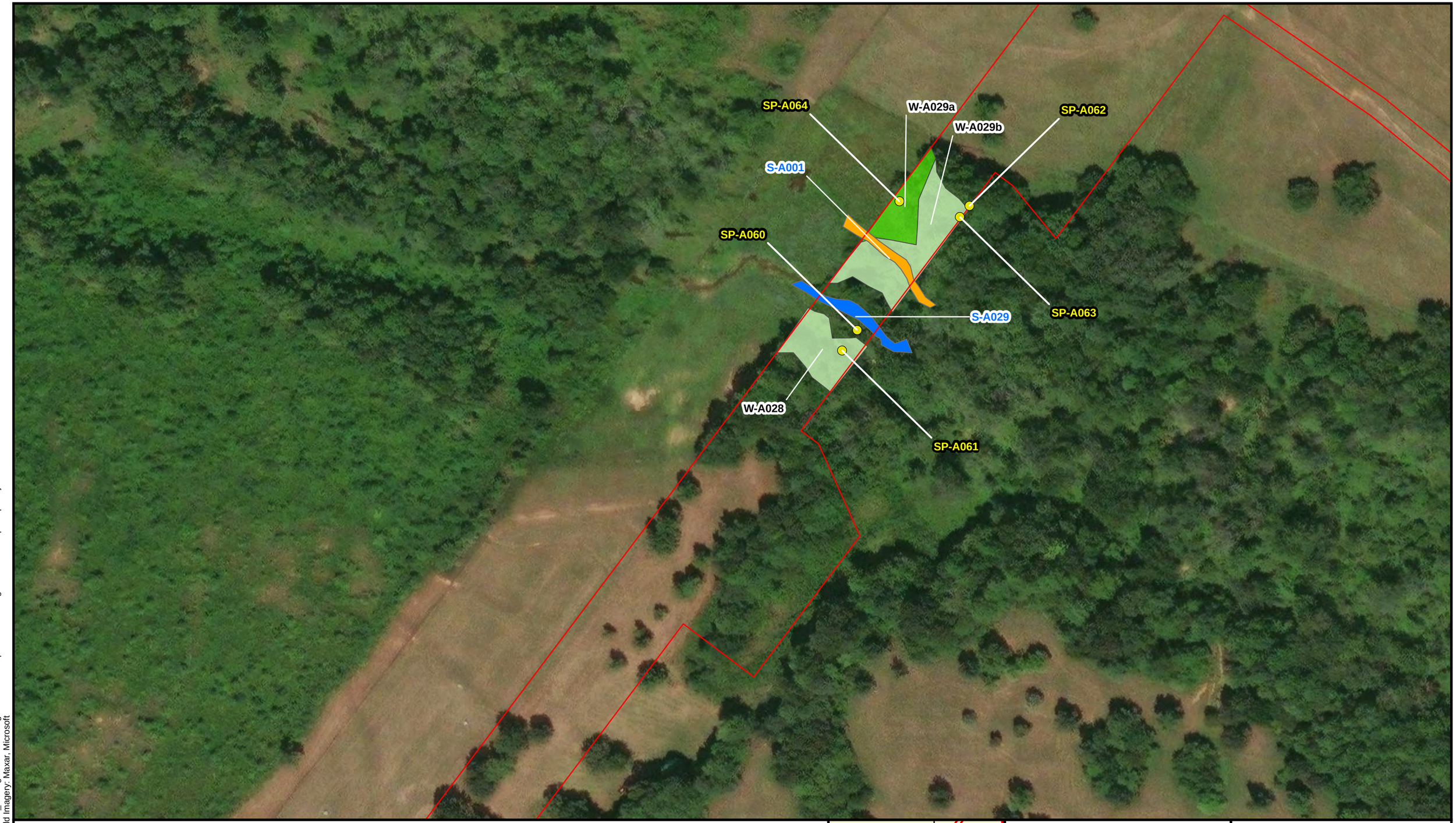
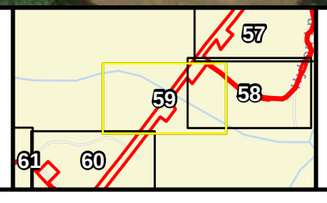


Project Area
Sample Plot (SP)

Stream (S)
Intermittent
Perennial

Wetland (W)
PEM
PFO



NORTH

100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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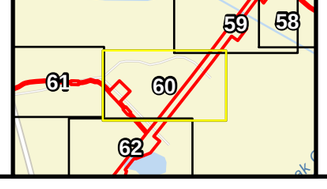
Project Area

Stream (S)

Ephemeral



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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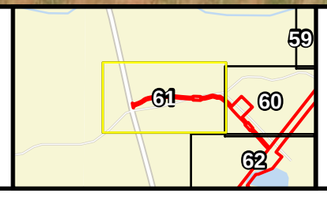
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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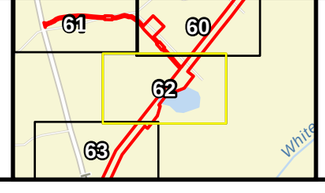
Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PEM
PSS



NORTH

100 50 0 100

Scale in Feet

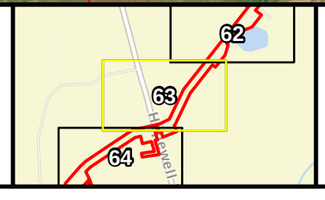
Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft
Source: ESRI, and Burns & McDonell.

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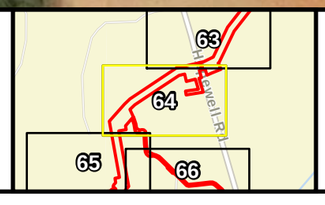
Hopewell Rd Co Rd 834

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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S-A032

W-A031

Project Area

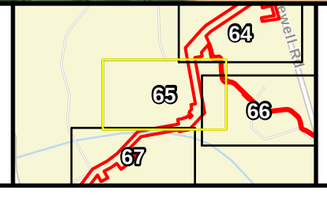
Sample Plot (SP)

Stream (S)

Intermittent

Wetland (W)

PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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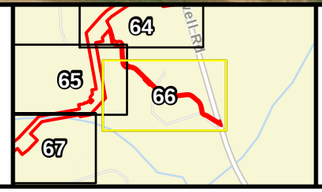
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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SP-A069
W-A031
SP-A068
SP-B121
SP-A070
S-A032
S-A033a
W-A033
SP-B120
SP-A071
SP-A072
S-A034
SP-A075
SP-A073
W-A034
W-A035
SP-A074

Project Area
Sample Plot (SP)

Stream (S)
Intermittent
Perennial

Wetland (W)
PFO
PSS

65
66
67
68

NORTH

100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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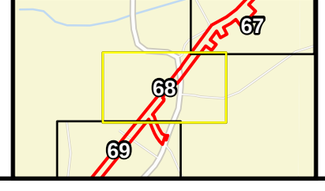
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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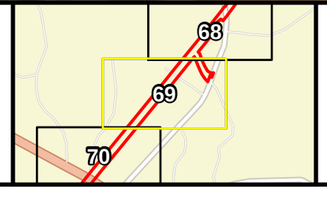

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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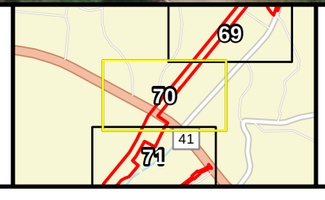

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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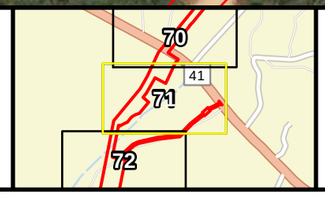

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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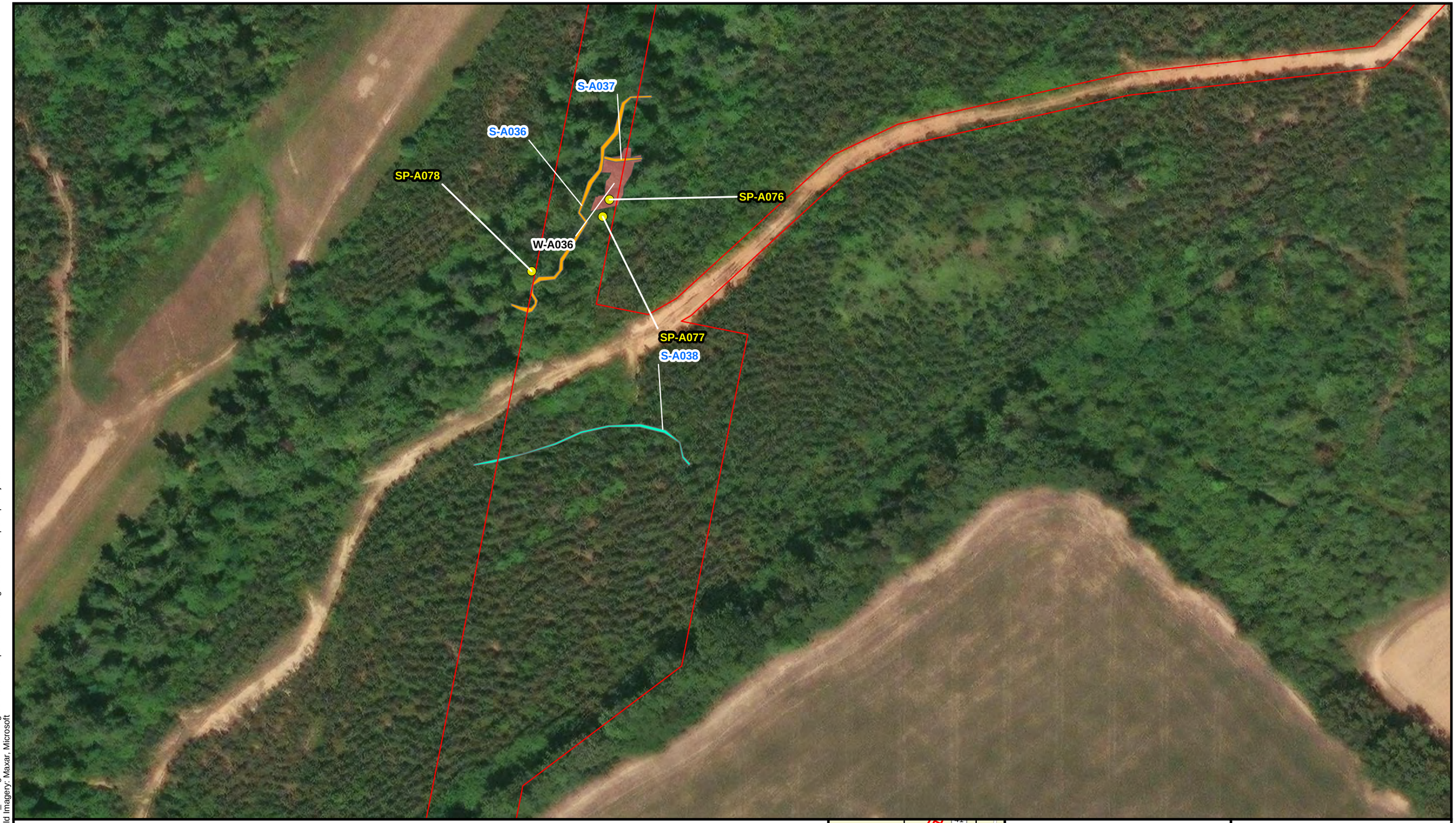
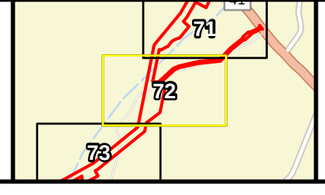


Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PSS



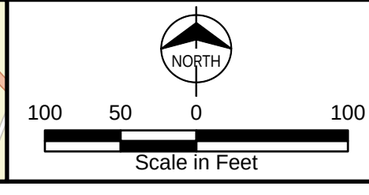


Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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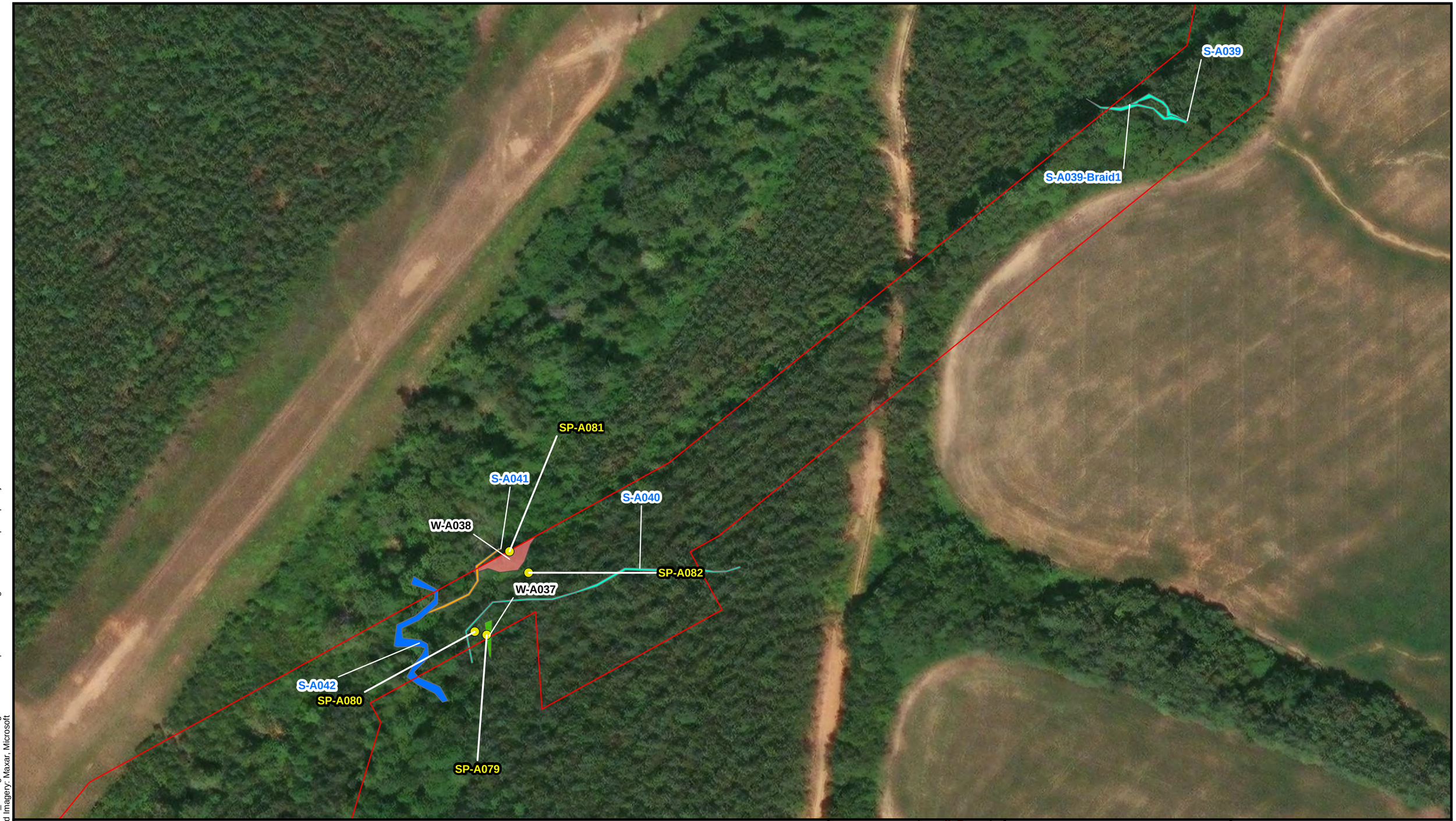
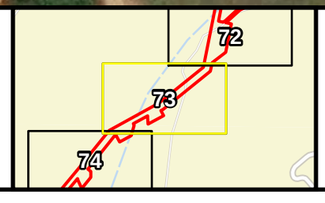


Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent
Perennial

Wetland (W)
PEM
PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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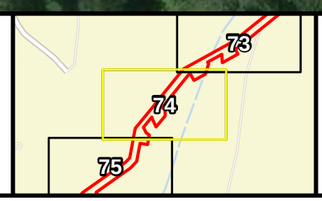
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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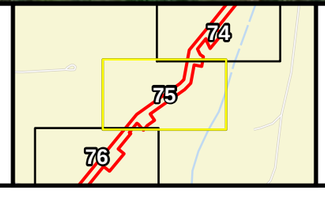
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area

Stream (S)

Perennial



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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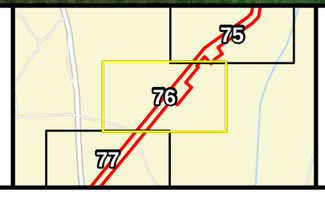
Project Area

Stream (S)

Perennial



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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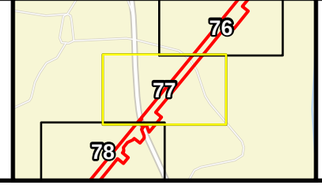

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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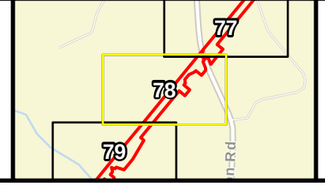
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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SP-A089
S-A045
SP-A088
SP-A087
SP-A090
W-A042
W-A043
W-A041

Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PEM
PFO

78
79
80
Hutson Rd

NORTH

100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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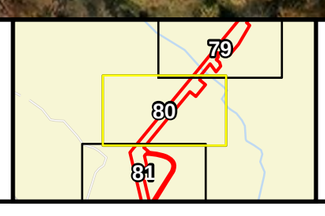
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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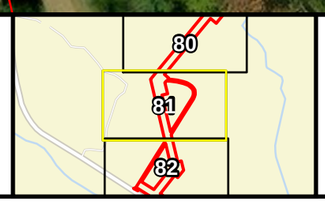
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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Sandy Creek Rd

Co Rd 866

Project Area

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft
Source: ESRI, and Burns & McDonell.

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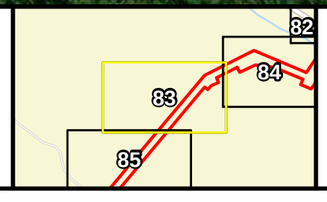
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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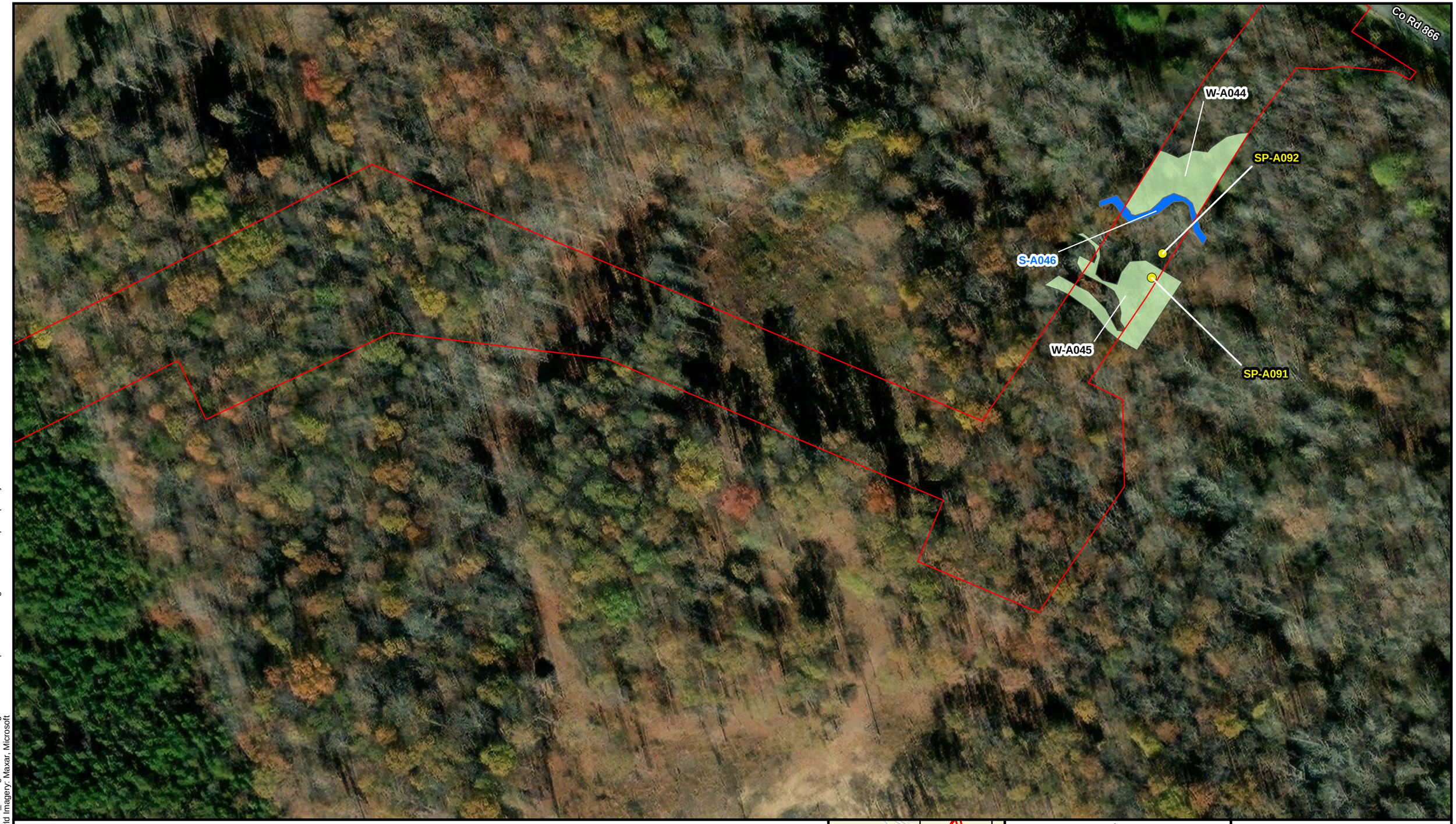
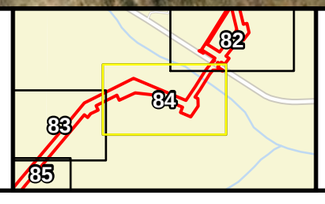


Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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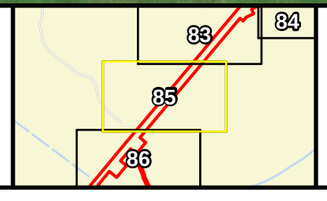
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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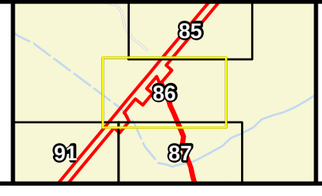
Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PEM
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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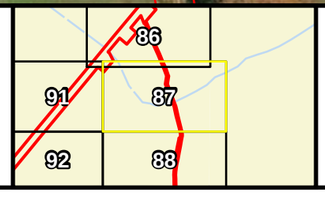
Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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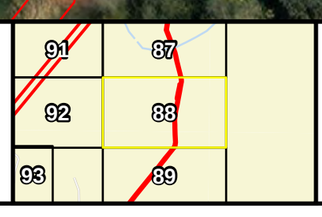
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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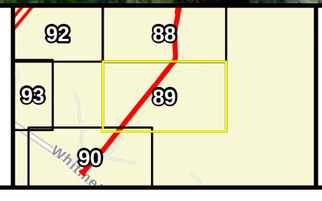
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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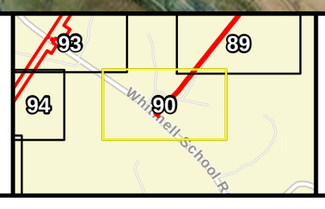
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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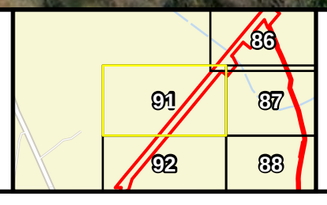
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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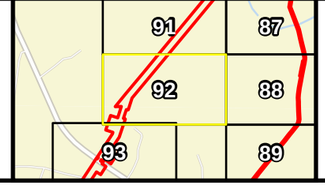
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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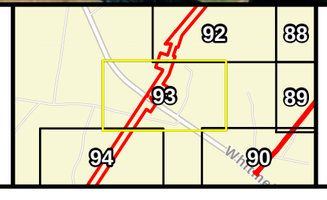
Project Area

Sample Plot (SP)



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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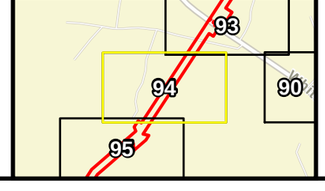
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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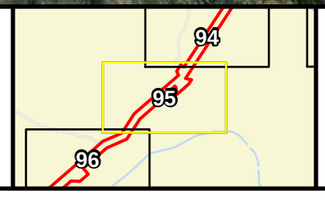
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area

Stream (S)

Intermittent



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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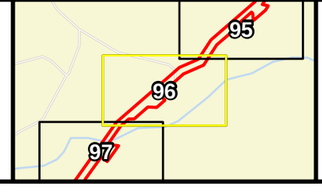
Service Layer Credits: World Imagery: Maxar, Microsoft

Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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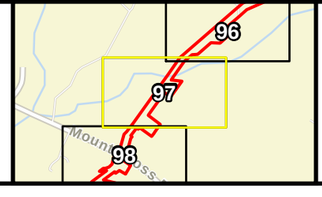
Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PEM



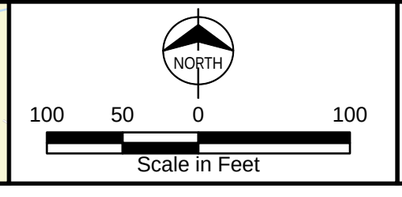


Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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S-A050

Co Rd 844

Mount Cross Rd

S-A052

Project Area

Stream (S)

Intermittent

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

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Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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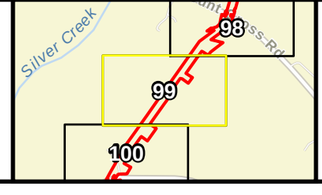
Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

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Source: ESRI, and Burns & McDonell.
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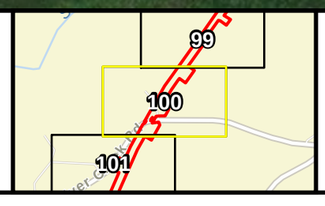
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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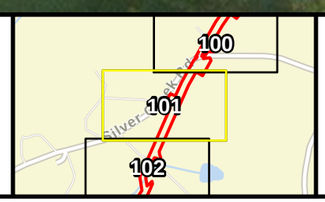
Project Area

Stream (S)

Ephemeral



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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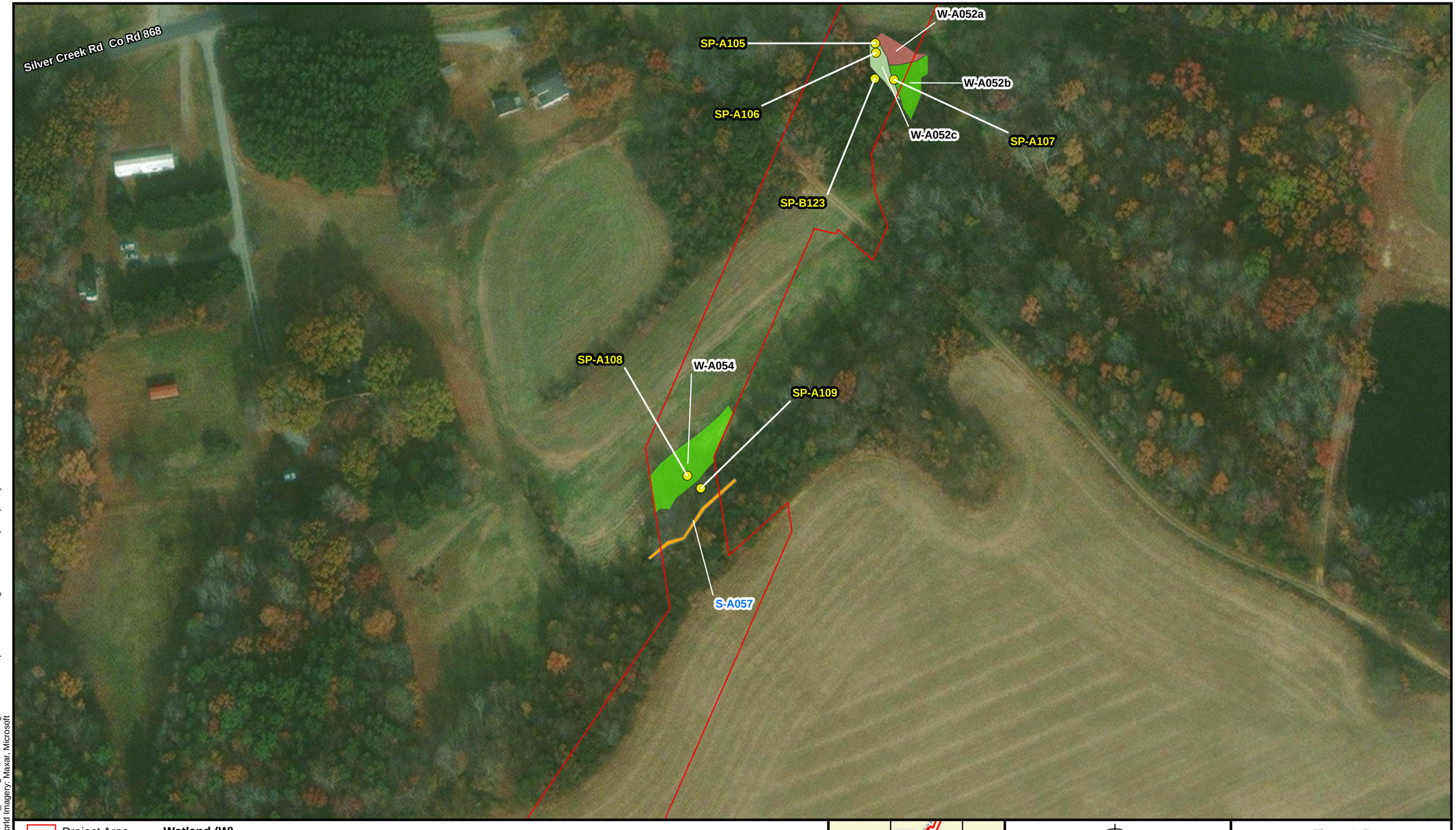
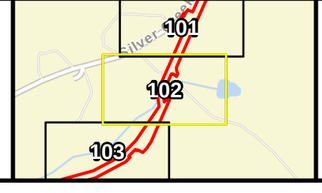


Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM
PFO
PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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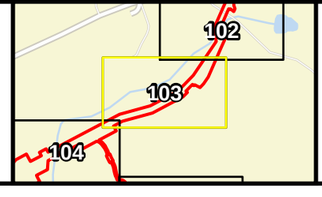
Project Area

Stream (S)

Intermittent



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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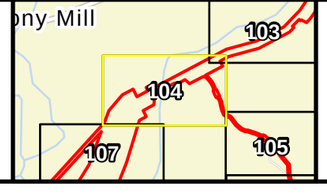
Project Area

Stream (S)

Ephemeral

Perennial



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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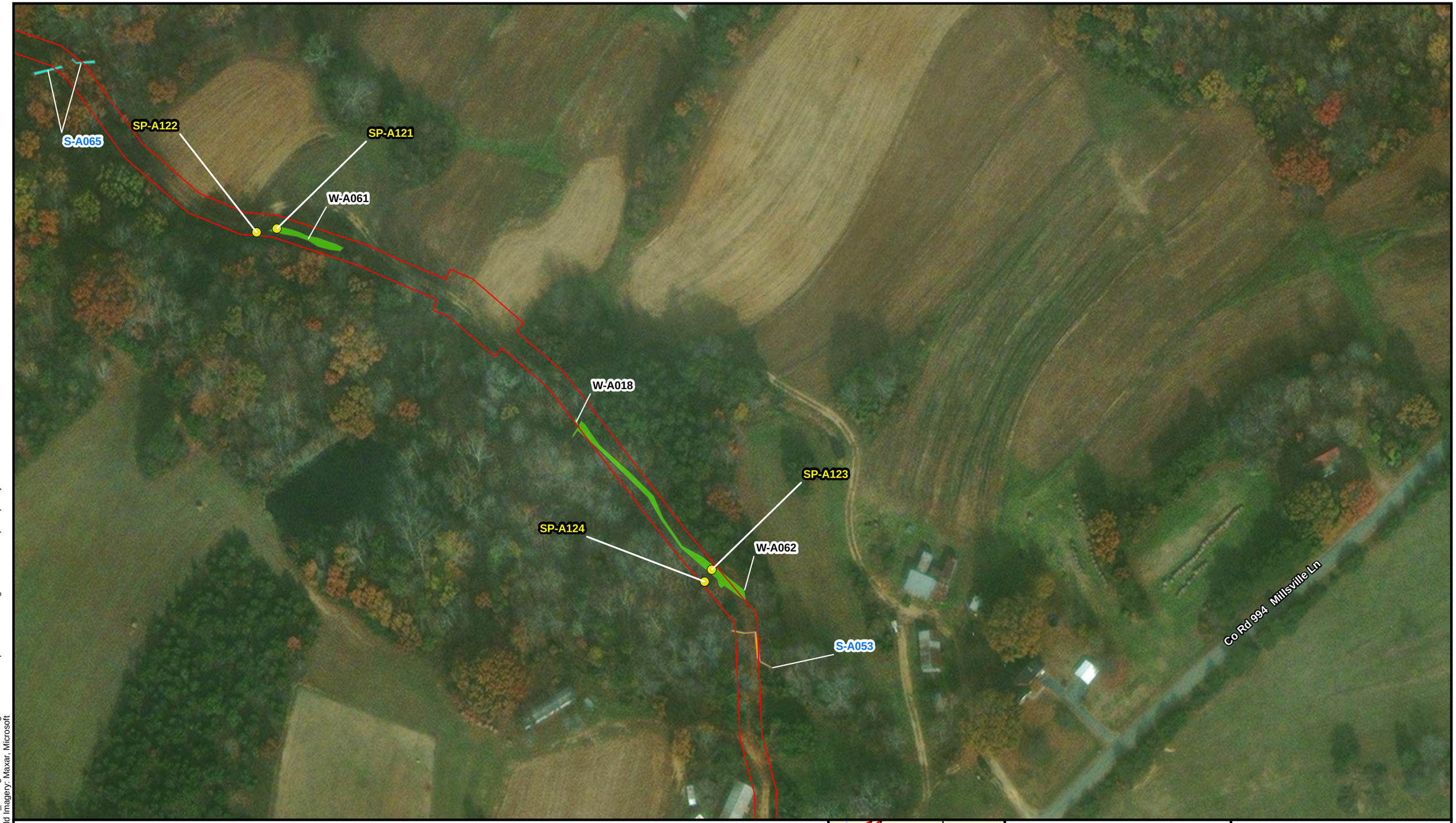
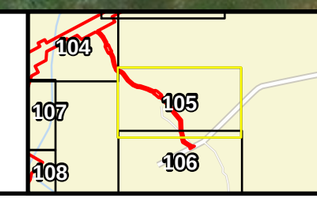


Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PEM



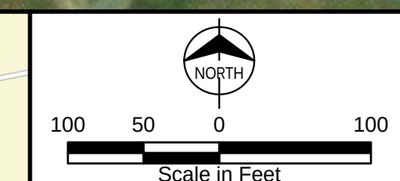


Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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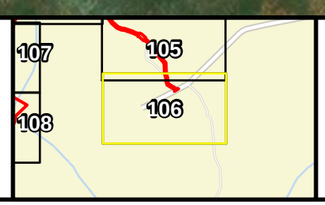
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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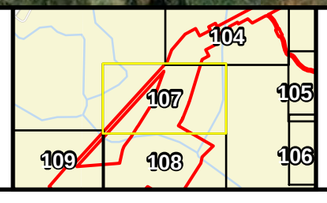
Project Area

Stream (S)
- Ephemeral
- Perennial

Wetland (W)
- PEM
- PSS



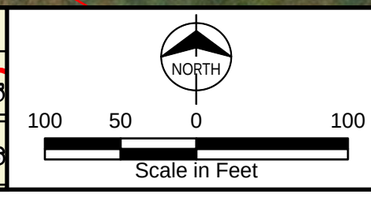


Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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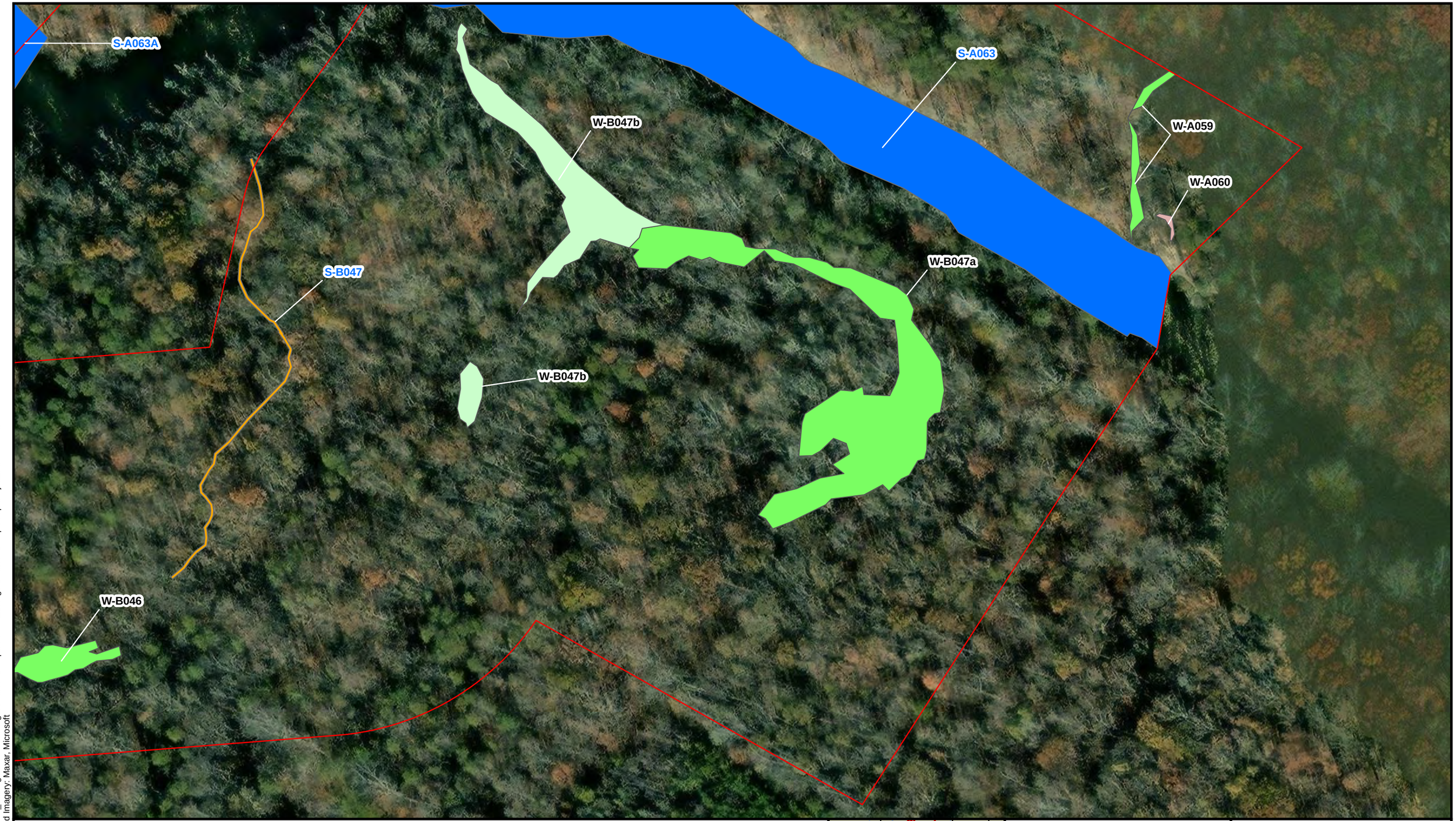
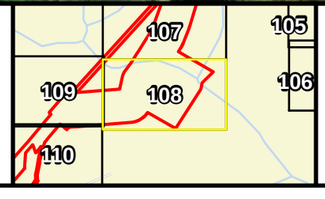


Project Area

Stream (S)
- Intermittent
- Perennial

Wetland (W)
- PEM
- PFO
- PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

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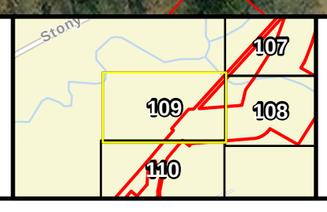
Project Area

Stream (S)

Perennial

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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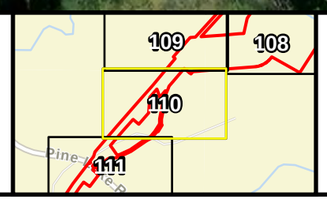
Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM
PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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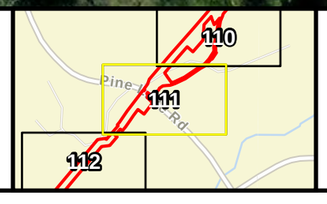
Pine Lake Rd

Co Rd 878

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

SP-A125
SP-A126
W-A063
W-A064

Project Area
Sample Plot (SP)

Wetland (W)

PEM
PFO

111
112
113

NORTH
100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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SP-A127

SP-A128

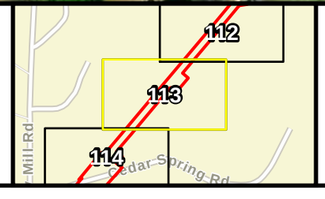
W-A064

Project Area

Sample Plot (SP)

Wetland (W)

PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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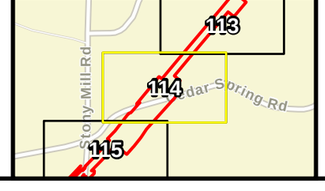
Project Area

Sample Plot (SP)

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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Cedar Spring Rd

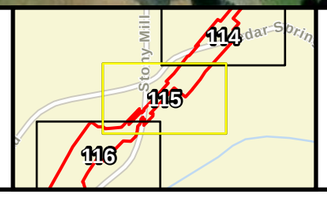
Co Rd 876

Mangrums Rd

Co Rd 869

Stony Mill Rd

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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S-B059
SP-B089
SP-B088
W-B044
SP-B088a
Stony Mill Rd
Co Rd 869
Project Area
Sample Plot (SP)
Stream (S)
Ephemeral
Wetland (W)
PEM
115
116
117
Langums Rd
NORTH
100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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Stony Mill Rd Co Rd 869

SP-B124

S-B046

W-B043

Project Area

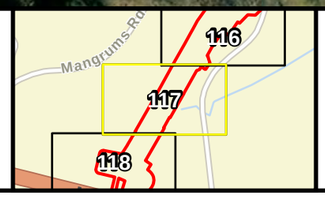
Sample Plot (SP)

Stream (S)

Intermittent

Wetland (W)

PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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SP-B087
W-B043
S-B046
SP-B086
US Hwy 58 Martinsville Hwy
US Hwy 58 Martinsville Hwy

Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PFO

NORTH
100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: Maxar, Microsoft
Source: ESRI, and Burns & McDonell.
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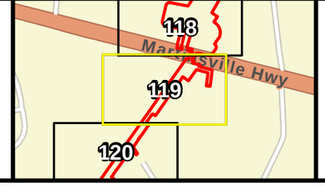
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Source: ESRI, and Burns & McDonell.

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Project Area

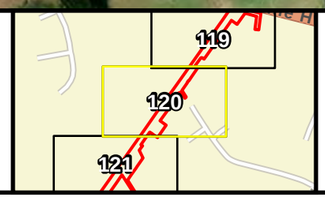
Sample Plot (SP)

Stream (S)

Intermittent

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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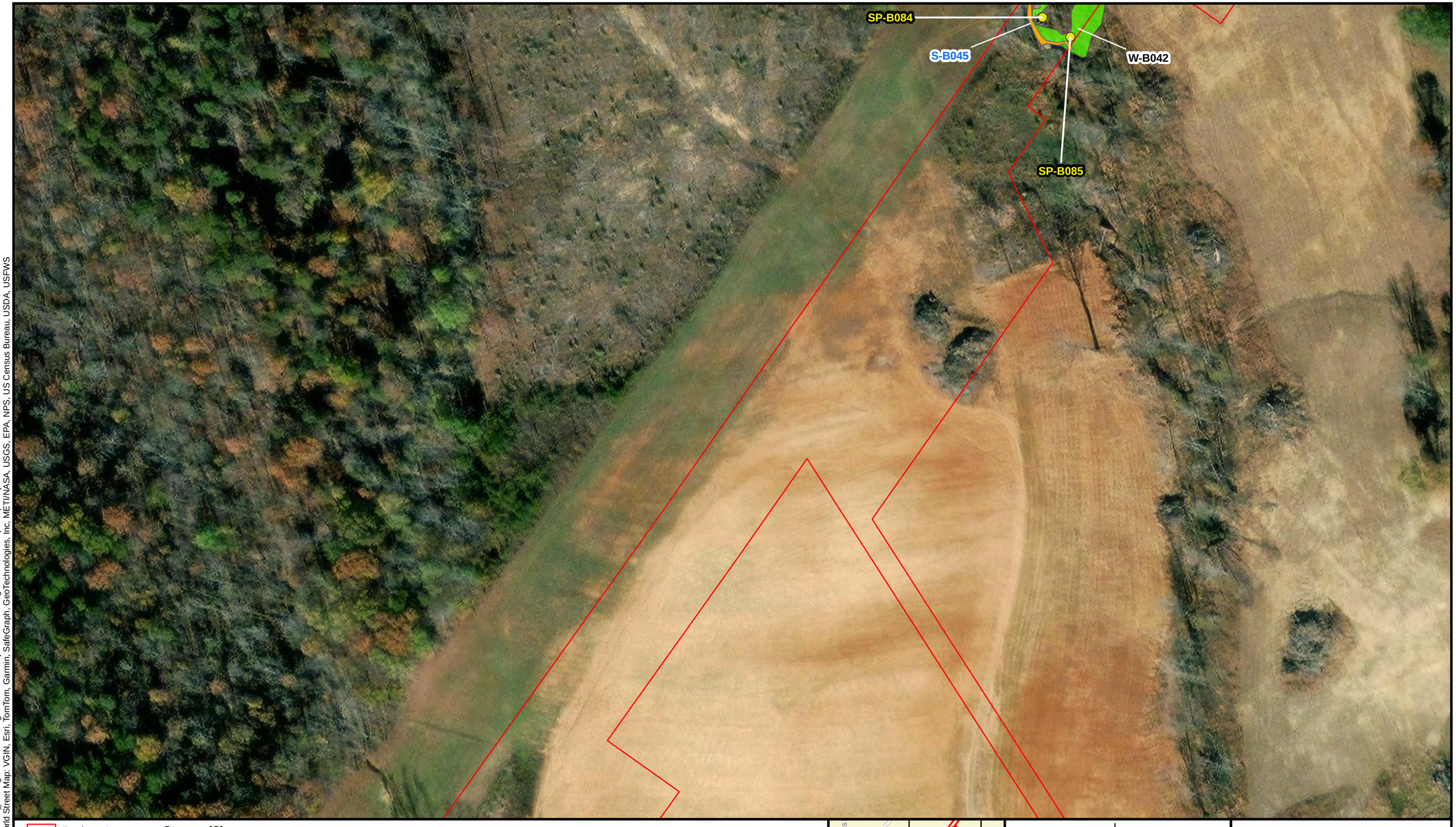
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Source: ESRI, and Burns & McDonell.

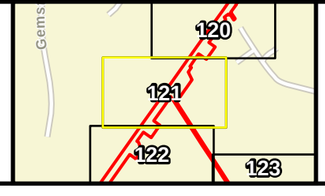
Issued: 12/2/2024



Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Street Map: VGIN, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Source: ESRI, and Burns & McDonell.

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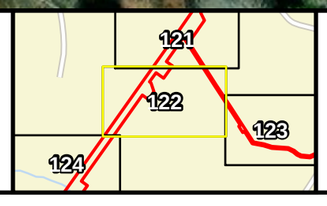
Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PEM
PSS



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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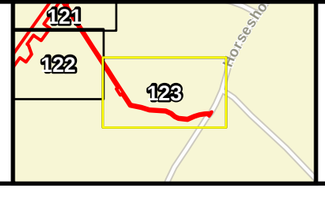
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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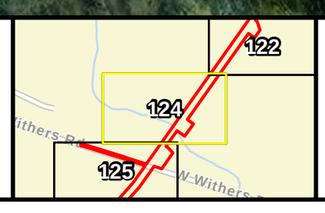
Project Area
Sample Plot (SP)

Stream (S)
Perennial

Wetland (W)
PEM
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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W Withers Rd

Co Rd 1066

SP-B098

S-B041

W-B038a

Project Area

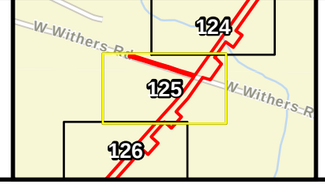
Sample Plot (SP)

Stream (S)

Intermittent

Wetland (W)

PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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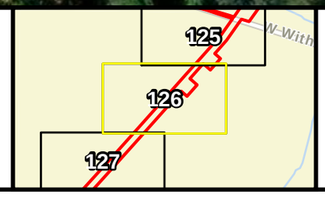
Project Area
Sample Plot (SP)

Stream (S)
Intermittent
Perennial

Wetland (W)
PEM
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Project Area

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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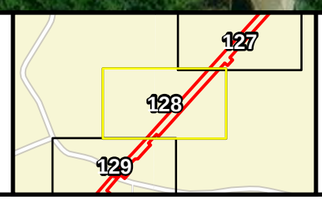
Project Area
Sample Plot (SP)

Wetland (W)
PEM
PFO
PUB



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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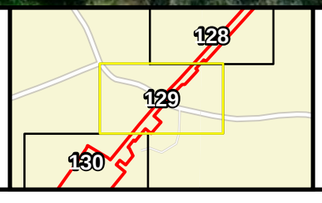
Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PEM
PFO
PUB



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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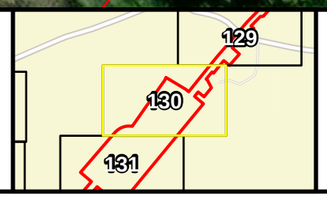
W-B024
S-B033
SP-B053
SP-B052
W-B025
SP-B052a
SP-B055
SP-B054
W-B026

Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM
PFO



NORTH
100 50 0 100
Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

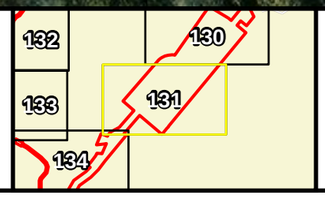
Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PEM
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 131 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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Ed Hardy Rd Co Rd 621

SP-B047

W-B021

SP-B046

S-B026

S-B027

S-B028

Project Area

Sample Plot (SP)

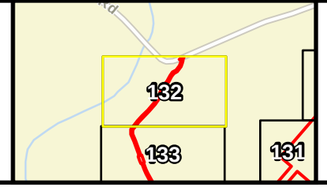
Stream (S)

Ephemeral

Intermittent

Wetland (W)

PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 132 of 156

Source: ESRI, and Burns & McDonell.

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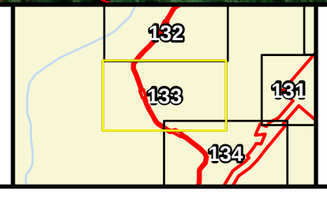
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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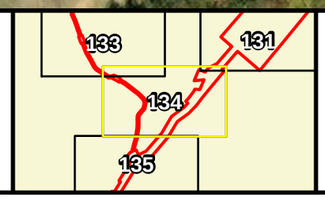
Project Area

Stream (S)

Ephemeral



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

W-B048

SP-B105

Project Area

Sample Plot (SP)

Wetland (W)

PEM

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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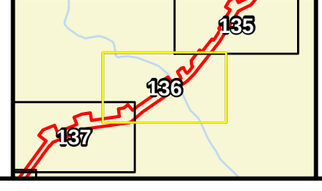
Project Area

Sample Plot (SP)

Stream (S)

Ephemeral

Perennial



NORTH

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Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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Project Area

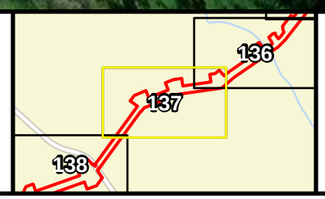
Sample Plot (SP)

Stream (S)

Ephemeral

Wetland (W)

PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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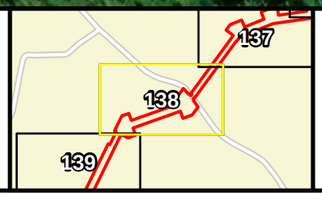
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Project Area

Sample Plot (SP)



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 138 of 156

Source: ESRI, and Burns & McDonell.

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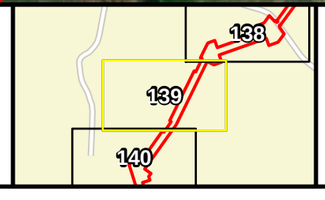
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PFO



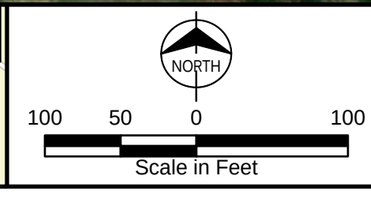


Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Kyle Rd Co Rd 962

SP-B043

W-B020

SP-B044

Project Area

Sample Plot (SP)

Wetland (W)

PFO

PSS

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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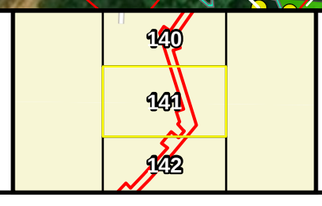
Project Area
Sample Plot (SP)

Stream (S)
Ephemeral

Wetland (W)
PEM



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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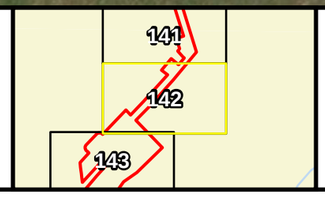
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PEM



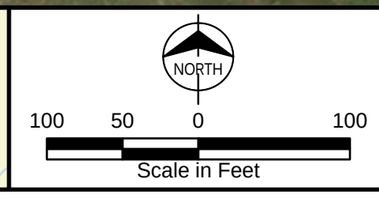


Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Source: ESRI, and Burns & McDonell.

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Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

W-B017
S-B021
SP-B125
SP-B037
SP-A168
SP-B038
W-A078
SP-A167
S-B055
SP-B040
W-B018
SP-B039
S-B054

Project Area
Sample Plot (SP)
Stream (S)
Intermittent
Wetland (W)
PEM
PFO

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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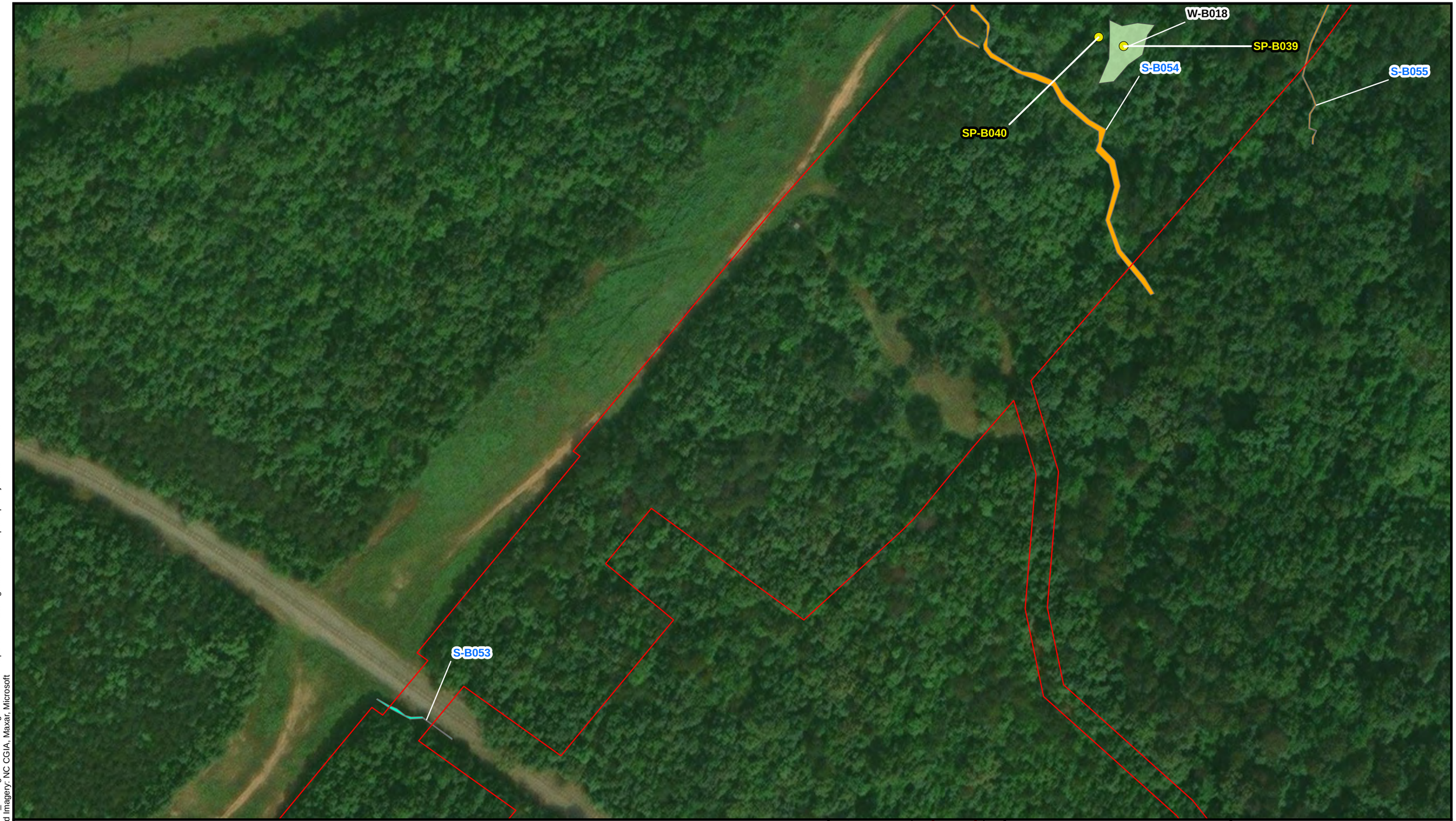
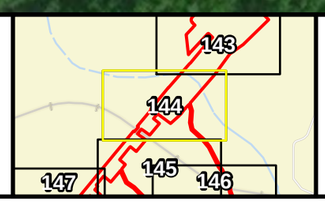


Project Area
Sample Plot (SP)

Stream (S)
Ephemeral
Intermittent

Wetland (W)
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 144 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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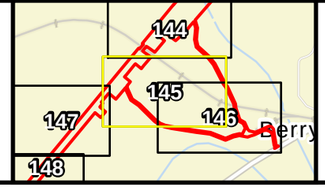
Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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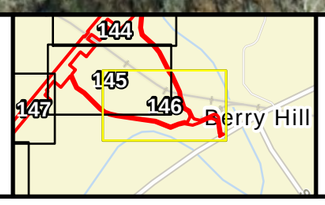
Project Area
Sample Plot (SP)

Stream (S)
Ephemeral

Wetland (W)
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 146 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

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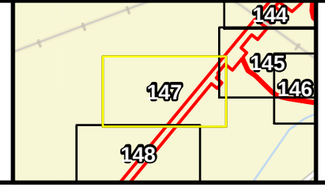
Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 147 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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Project Area

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

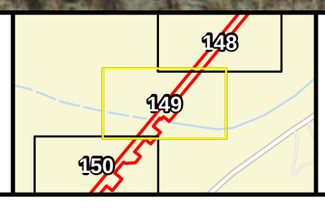
Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area

Stream (S)

Intermittent



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 149 of 156

Source: ESRI, and Burns & McDonell.

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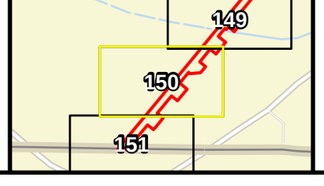
Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Project Area
Sample Plot (SP)

Stream (S)
Intermittent

Wetland (W)
PFO



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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SP-B028
W-B013a
SP-B027
W-B013b
SP-B029
SP-B030
State Rd 1745 Buffalo Rd
State Rd 770 State Hwy 770

Project Area
Sample Plot (SP)

Wetland (W)

PEM
PFO

150
151

NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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Source: ESRI, and Burns & McDonell.

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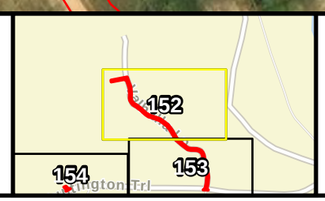
Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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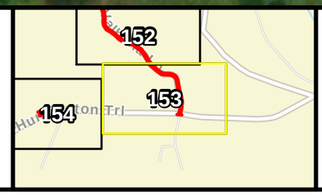
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Huntington Trl Co Rd 621

Project Area



NORTH

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Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 153 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
Service Layer Credits: World Imagery: NC CGIA, Maxar, Microsoft

Source: ESRI, and Burns & McDonell.

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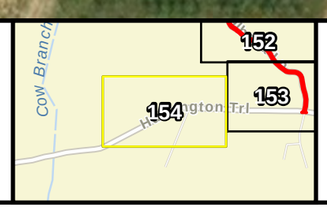
Co Rd 621 Huntington Trl

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 154 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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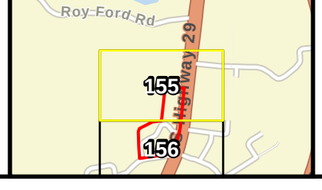
Issued: 12/2/2024

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
Page 155 of 156

Path: C:\ArcGIS Projects\MVP_Southgate\MVP Southgate Wetland Report\MVP Southgate Wetland Report.aprx ijhassler 12/2/2024
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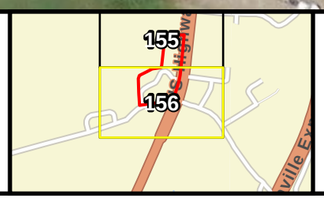
Source: ESRI, and Burns & McDonell.

Issued: 12/2/2024

Project Area



NORTH

100 50 0 100

Scale in Feet

Figure A-5
Wetlands and Other
Aquatic Resources Map
MVP Southgate Amendment Project
Pittsylvania County, Virginia
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Source: ESRI, and Burns & McDonell.

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Appendix B – Routine Wetland Determination Data Forms: Atlantic and Gulf Coastal Plain Region

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-03

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A001

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Undulating Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.820867 Long: -79.349425 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A001. Soil and vegetation significantly disturbed by grazing. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ✔ No____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A001

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	45	✔	FACW
2. Oplismenus hirtellus	25	✔	FACU
3. Persicaria longiseta	15		FAC
4. Eutrochium maculatum	5		FACW
5. Carex lurida	5		OBL
6. Scirpus atrovirens	5		OBL
7. Eleocharis obtusa	5		OBL
8.			
9.			
10.			
11.			
	105 = Total Cover		
50% of total cover: 52.5	20% of total cover: 21		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	50	x 2 =	100
FAC species	15	x 3 =	45
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	105 (A)		260 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Prevalence index is met. Vegetation significantly disturbed by grazing.

SOIL Sampling Point: SP-A001

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/2	90	10YR 4/6	10	C	PL / M	Silty Clay Loam	
4 - 16	10YR 6/1	80	7.5YR 5/8	20	C	PL / M	Sandy Clay Loam	
16 - 20	2.5Y 5/3	80	10YR 5/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Soils are significantly disturbed by grazing.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-03

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A002

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.820955 Long: -79.349456 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔		
Wetland Hydrology Present?	Yes ✔	No ___		

Remarks:

Upland sample plot adjacent to PEM W-A001. Soils and vegetation significantly disturbed by grazing. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ✔ No____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator C3 is met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A002

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	55	✔	FACU
2. Ludwigia palustris	25	✔	OBL
3. Trifolium pratense	10		FACU
4. Rosa multiflora	5		FACU
5. Ligustrum sinense	5		FACU
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	100 (A)		325 (B)

Prevalence Index = B/A = 3.25

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met. Vegetation significantly disturbed by grazing.

SOIL Sampling Point: SP-A002

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	2.5Y 4/4	95	10YR 5/6	5	C	PL / M	Sandy Loam	
2 - 20	2.5Y 6/3	70	10YR 5/6	30	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Soils significantly disturbed by grazing.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-03

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A003

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Stream Terrace Local relief (concave, convex, none): Concave Slope (%): 4

Subregion (LRR or MLRA): P 136 Lat: 36.821088 Long: -79.348973 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✔	Depth (inches): ___
Water Table Present?	Yes ___	No ✔	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 8

Wetland Hydrology Present? Yes ___ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are met. Saturation is present at 8 inches, however, neither a restrictive layer, nor water table was observed therefore, indicator A3 is not met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A003

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	15	✔	FAC
2. Ligustrum sinense	10	✔	FACU
3. Elaeagnus commutata	10	✔	UPL
4.			
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Herb Stratum (Plot size: 5 ft r)			
1. Glyceria striata	30	✔	OBL
2. Fragaria virginiana	20	✔	FACU
3. Toxicodendron radicans	10		FAC
4. Rosa multiflora	10		FACU
5. Cryptotaenia canadensis	5		FAC
6. Carex intumescens	5		FACW
7. Agrimonia parviflora	5		FACW
8.			
9.			
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	10	x 2 =	20
FAC species	30	x 3 =	90
FACU species	40	x 4 =	160
UPL species	10	x 5 =	50
Column Totals:	120 (A)		350 (B)

Prevalence Index = B/A = 2.91

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A003

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/2	95	7.5YR 5/6	5	C	M	Sandy Clay Loam	
4 - 16	10YR 6/2	95	7.5YR 5/6	5	C	M	Sandy Clay Loam	
16 - 20	10YR 5/1	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-03

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A004

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.821185 Long: -79.348502 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ✔, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Soils naturally problematic due to position in active floodplain. Though hydrology indicators are present and soils are problematic, the area in question should not be considered wetland due to a lack of dominance of hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ✔ No____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2 and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A004

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ligustrum sinense	35	✔	FACU
2. Carpinus caroliniana	5		FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	40 = Total Cover		
50% of total cover: 20	20% of total cover: 8		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	50	✔	FAC
2. Verbesina occidentalis	25	✔	FACU
3. Verbesina alternifolia	10		FAC
4. Glyceria striata	5		OBL
5. Dichanthelium scoparium	5		FACW
6. Boehmeria cylindrica	5		FACW
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	10	x 2 =	20
FAC species	65	x 3 =	195
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	140 (A)		460 (B)

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A004

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/4	100					Sand	
12 - 20	10YR 5/2	95	10YR 5/6	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

No indicators are met, however, top 12 inches of soil are relatively recent fluvial deposits and subject area is located within a concave terrace. The top layer of sand deposits is underlain by a depleted matrix with redoximorphic concentrations. Due to the presence of hydrolology indicators and the position of the area in the landscape, soils should be considered hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-03

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A005

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.822017 Long: -79.347899 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PFO W-A002. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Compacted clay layer present at a depth of 10 inches capable of perching water within 12 inches of the soil surface.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A005

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula nigra	30	✔	FACW
2. Liriodendron tulipifera	25	✔	FACU
3. Acer rubrum	20	✔	FAC
4. Platanus occidentalis	15		FACW
5.			
6.			
7.			
	90	= Total Cover	
50% of total cover: 45	20% of total cover: 18		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ligustrum sinense	35	✔	FACU
2. Rosa multiflora	10	✔	FACU
3. Asimina triloba	5		FAC
4.			
5.			
6.			
7.			
8.			
9.			
	50	= Total Cover	
50% of total cover: 25	20% of total cover: 10		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	65	✔	FAC
2. Rosa multiflora	20	✔	FACU
3. Elymus hystrix	10		UPL
4. Verbesina alternifolia	5		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.85 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	95	x 3 =	285
FACU species	90	x 4 =	360
UPL species	10	x 5 =	50
Column Totals:	240 (A)		785 (B)

Prevalence Index = B/A = 3.27

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A005

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 5	7.5YR 4/2	100					Sandy Loam	
5 - 8	7.5YR 4/3	95	7.5YR 5/6	5	C	M	Sandy Loam	
8 - 10	10YR 5/3	90	7.5YR 5/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compacted Clay

Depth (inches): 10+

Hydric Soil Present? **Yes** ___ **No** ✔

Remarks:

No indicators are met. Compacted clay layer present at a depth of 10 inches. Unable to excavate past restrictive layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-03

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A006

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.821841 Long: -79.347902 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A002. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 9
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, C3, and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A006

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Betula nigra	20	✔	FACW
3. Liriodendron tulipifera	15	✔	FACU
4. Ulmus rubra	5		FAC
5.			
6.			
7.			
	70	= Total Cover	
50% of total cover: 35	20% of total cover: 14		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ligustrum sinense	35	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	35	= Total Cover	
50% of total cover: 17.5	20% of total cover: 7		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	60	✔	FAC
2. Glyceria striata	20	✔	OBL
3. Rosa multiflora	10		FACU
4. Carpinus caroliniana	5		FAC
5. Carex lurida	5		OBL
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	20	x 2 =	40
FAC species	100	x 3 =	300
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	205 (A)		605 (B)

Prevalence Index = B/A = 2.95

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A006

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	2.5Y 5/1	95	7.5YR 5/8	5	C	PL / M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A007

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Undulating Slope (%): 4

Subregion (LRR or MLRA): P 136 Lat: 36.823563 Long: -79.346541 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A003a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are met. Significant rainfall event within the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A007

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	30	✔	FACU
2. Acer rubrum	30	✔	FAC
3. Nyssa sylvatica	10		FAC
4. Liquidambar styraciflua	10		FAC
5. Betula nigra	5		FACW
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Nyssa sylvatica	20	✔	FAC
2. Liriodendron tulipifera	5		FACU
3. Quercus alba	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 5 ft r)			
1. Agrostis perennans	15	✔	FACU
2. Lonicera japonica	15	✔	FACU
3. Microstegium vimineum	10		FAC
4. Smilax rotundifolia	10		FAC
5. Euonymus americanus	5		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	95	x 3 =	285
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	170 (A)		575 (B)

Prevalence Index = B/A = 3.38

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A007

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/1	100					Silt Loam	
4 - 20	10YR 5/2	95	7.5YR 5/6	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A008

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.822481 Long: -79.346554 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A003a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✔ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✔	No ____	Depth (inches): 1	
Water Table Present?	Yes ✔	No ____	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0	**Wetland Hydrology Present? Yes ✔ No ____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A1, A2, A3, B9, C3, D2, and D5 are present. Indicators A1, A2, and A3 may be misapplied due to recent significant rainfall event, however, other indicators of hydrology are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A008

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula nigra	60	✔	FACW
2. Acer rubrum	20	✔	FAC
3. Fraxinus pennsylvanica	5		FACW
4.			
5.			
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Vaccinium fuscatum	15	✔	FAC
2. Acer rubrum	10	✔	FAC
3. Platanus occidentalis	5		FACW
4.			
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 5 ft r)			
1. Carex stricta	30	✔	OBL
2. Glyceria striata	25	✔	OBL
3. Symplocarpus foetidus	10		OBL
4. Persicaria longiseta	10		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	65	x 1 =	65
FACW species	70	x 2 =	140
FAC species	55	x 3 =	165
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	190 (A)		370 (B)

Prevalence Index = B/A = 1.94

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A008

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	N 5/	95	10YR 5/6	5	C	PL / M	Clay Loam	
8 - 20	N 6/	70	10YR 5/6	10	C	M	Clay Loam	
-			7.5YR 5/8	20	C	M		
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ✔ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F2 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A009

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.82901 Long: -79.344547 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ✔ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D3 is met. Compacted layer capable of perching water within 12 inches of the soil surface present at a depth of 6 inches.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A009

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Sambucus nigra	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		

50% of total cover: 5 20% of total cover: 2

Herb Stratum (Plot size: 5 ft r)			
1. Amphicarpaea bracteata	50	✔	FAC
2. Elymus hystrix	25	✔	UPL
3. Carex scoparia	10		FACW
4. Scirpus atrovirens	5		OBL
5. Solidago gigantea	5		FACW
6. Glyceria striata	5		OBL
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	15	x 2 =	30
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	25	x 5 =	125
Column Totals:	110 (A)		345 (B)

Prevalence Index = B/A = 3.14

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A009

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 4/2	100					Sandy Clay Loam	
4 - 6	7.5YR 5/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 6

Hydric Soil Present? **Yes** ___ **No** ✔

Remarks:

No indicators are met. Compacted layer present at a depth of 6 inches. Unable to excavate past restrictive layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A010

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.82747 Long: -79.34429 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A004. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours, hydrology problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✔ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✔	No ____	Depth (inches): 0.25
Water Table Present?	Yes ✔	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A1, A2, A3, B10, and D2 are met. Indicators A1, A2, and A3, may be misapplied due to recent significant rainfall event, however, wetland hydrology is still present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A010

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	5	✔	FAC
2. Persicaria longiseta	5	✔	FAC
3. Parthenocissus quinquefolia	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	15 (A)		50 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met. Radii for plot sampling sizes reflect only areas exhibiting hydrology within the concave drainage. Trees and shrubs were all rooted outside the wetland on convex landforms.

SOIL Sampling Point: SP-A010

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 6/2	100					Clay Loam	
4 - 20	10YR 6/2	80	10YR 6/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A011

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.82746 Long: -79.344397 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PEM W-A004. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours, hydrology problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, and D2 are present. Indicators A2 and A3 may be misapplied due to recent rainfall event.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A011

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	50	✔	FAC
2. Liriodendron tulipifera	15		FACU
3. Quercus phellos	10		FAC
4. Ulmus rubra	5		FAC
5. Juglans nigra	5		FACU
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rubus allegheniensis	35	✔	FACU
2. Liquidambar styraciflua	10	✔	FAC
3. Fraxinus pennsylvanica	5		FACW
4.			
5.			
6.			
7.			
8.			
9.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	35	✔	FAC
2. Parthenocissus quinquefolia	15	✔	FACU
3. Liquidambar styraciflua	10		FAC
4. Rubus allegheniensis	10		FACU
5. Sambucus nigra	5		FAC
6. Lonicera japonica	5		FACU
7. Euonymus americanus	5		FAC
8. Smilax rotundifolia	5		FAC
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Parthenocissus quinquefolia	5	✔	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	135	x 3 =	405
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	230 (A)		775 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A011

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 6/2	100					Clay Loam	
4 - 20	10YR 6/2	80	10YR 5/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A012

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.826186 Long: -79.338668 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A005. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Significant rainfall event within the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A012

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	35	✔	FACW
2. Carex vulpinoidea	25	✔	OBL
3. Juncus tenuis	20	✔	FAC
4. Andropogon virginicus	10		FACU
5. Schedonorus arundinaceus	5		FACU
6. Lespedeza cuneata	5		FACU
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	35	x 2 =	70
FAC species	20	x 3 =	60
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		235 (B)

Prevalence Index = B/A = 2.35

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A012

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	2.5Y 6/2	95	7.5YR 5/6	5	C	M	Clay Loam	
8 - 20	2.5Y 6/2	70	7.5YR 5/6	30	C	M		
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✔ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicators F3 and F8 are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A013

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.826221 Long: -79.338705 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A005. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Significant rainfall event within the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A013

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Lolium perenne	30	✔	FACU
2. Kummerowia striata	30	✔	FACU
3. Andropogon virginicus	20	✔	FACU
4. Schedonorus arundinaceus	10		FACU
5. Rumex crispus	5		FAC
6. Ambrosia artemisiifolia	5		FACU
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	100 (A)		395 (B)

Prevalence Index = B/A = 3.95

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A013

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	2.5Y 6/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 2+

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Excavation beyond 2 inches prevented by compacted soils.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A014

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.825826 Long: -79.344604 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A006. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 11
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, D2, and D5 are met. Indicators A2 and A3 may be misapplied due to recent rainfall event, however, wetland hydrology is still present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A014

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	45	✔	FAC
2. Betula nigra	30	✔	FACW
3. Liriodendron tulipifera	10		FACU
4.			
5.			
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	5	✔	FAC
2. Nyssa sylvatica	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	80	✔	FAC
2. Glyceria striata	10		OBL
3. Lonicera japonica	5		FACU
4. Rubus allegheniensis	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	30	x 2 =	60
FAC species	135	x 3 =	405
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	195 (A)		555 (B)

Prevalence Index = B/A = 2.84

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A014

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 6/2	95	10YR 5/6	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A015

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.825337 Long: -79.344626 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A006. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Significant rainfall event within the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A015

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	60	✔	FAC
2. Liquidambar styraciflua	15		FAC
3. Liriodendron tulipifera	10		FACU
4.			
5.			
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Nyssa sylvatica	10	✔	FAC
2. Viburnum prunifolium	5	✔	FACU
3. Quercus alba	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		

Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	20	✔	FAC
2. Lonicera japonica	15	✔	FACU
3. Parthenocissus quinquefolia	10		FACU
4. Smilax rotundifolia	5		FAC
5. Polystichum acrostichoides	5		FACU
6.			
7.			
8.			
9.			
10.			
11.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	110	x 3 =	330
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	160 (A)		530 (B)

Prevalence Index = B/A = 3.31

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A015

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 15	10YR 5/3	100					Sandy Loam	
15 - 20	2.5Y 6/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A016

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.823555 Long: -79.346949 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔ No ___
Hydric Soil Present?	Yes ✔	No ___		
Wetland Hydrology Present?	Yes ✔	No ___		

Remarks:

Wetland sample plot in PEM W-A003b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours, hydrology naturally problematic. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 1
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, C3, D2, and D5 are met. Indicators A2 and A3 may be misapplied due to recent rainfall event, however wetland hydrology is still present. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A016

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Symphyotrichum puniceum	35	✔	OBL
2. Dichanthelium clandestinum	20	✔	FAC
3. Solidago gigantea	15		FACW
4. Carex squarrosa	10		FACW
5. Coleataenia anceps	10		FAC
6. Carex lurida	5		OBL
7. Glyceria striata	5		OBL
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	25	x 2 =	50
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		185 (B)

Prevalence Index = B/A = 1.85

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met. Vegetation significantly disturbed by natural gas pipeline right of way.

SOIL Sampling Point: SP-A016

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	N 5/	80	7.5YR 5/8	20	C	PL / M	Clay Loam	
12 - 20	N 6/	70	10YR 5/6	10	C	M	Clay Loam	
-			7.5YR 5/8	20	C	PL / M		
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ✔ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F2 is met. Soils significantly disturbed by natural gas pipeline right of way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A017

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.801898 Long: -79.36818 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A007, representative of conditions observed in PEM W-A008. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours. Vegetation, soils, and hydrology disturbed by grazing.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, D2, and D5 are met. Significant rainfall event in the past 24 hours. Hydrology significantly disturbed by grazing.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A017

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	35	✔	FACU
2. Juncus effusus	25	✔	FACW
3. Ludwigia palustris	15		OBL
4. Carex vulpinoidea	10		OBL
5. Lysimachia nummularia	10		FACW
6. Eutrochium maculatum	5		FACW
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	100 (A)		245 (B)

Prevalence Index = B/A = 2.45

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Prevalence index is met. Vegetation significantly disturbed by grazing.

SOIL Sampling Point: SP-A017

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/1	85	7.5YR 5/8	15	C	PL / M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✔ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicators F3 and F8 are met. Soils significantly disturbed by grazing.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A019

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.807711 Long: -79.363771 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PFO W-A010b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ✔ No____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3, B10, and D5 are present. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A019

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Asimina triloba	50	✔	FAC
2. Ulmus rubra	25	✔	FAC
3. Quercus phellos	10		FAC
4.			
5.			
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ilex decidua	30	✔	FACW
2. Carpinus caroliniana	10	✔	FAC
3. Viburnum prunifolium	10	✔	FACU
4. Asimina triloba	5		FAC
5. Ulmus rubra	5		FAC
6.			
7.			
8.			
9.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		
Herb Stratum (Plot size: 5 ft r)			
1. Viola striata	20	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	25	✔	FAC
2.			
3.			
4.			
5.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	130	x 3 =	390
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	190 (A)		530 (B)

Prevalence Index = B/A = 2.78

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A019

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	7.5YR 4/3	100					Silt Loam	
3 - 20	7.5YR 6/3	80	7.5YR 6/6	20	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A020

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.807668 Long: -79.363840 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A010b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3, B10, D2, and D5 are met. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A020

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	25	✔	FAC
2. Liquidambar styraciflua	15	✔	FAC
3. Ulmus rubra	15	✔	FAC
4. Betula nigra	5		FACW
5.			
6.			
7.			
	60	= Total Cover	
50% of total cover: 30	20% of total cover: 12		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	20	✔	FAC
2. Acer rubrum	15	✔	FAC
3. Ulmus rubra	10		FAC
4. Viburnum prunifolium	5		FACU
5. Sambucus nigra	5		FAC
6.			
7.			
8.			
9.			
	55	= Total Cover	
50% of total cover: 27.5	20% of total cover: 11		
Herb Stratum (Plot size: 5 ft r)			
1. Viola striata	25	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25	= Total Cover	
50% of total cover: 12.5	20% of total cover: 5		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	105	x 3 =	315
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	140 (A)		395 (B)

Prevalence Index = B/A = 2.82

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A020

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 6/2	85	7.5YR 5/6	15	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A021

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.805111 Long: -79.366796 Datum: NAD 83

Soil Map Unit Name: 41A - Hatboro silt loam, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PSS W-A010c. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 4
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, C3, D2, and D5 are present. Indicators A2 and A3 may be misapplied due to recent rainfall event, however, wetland hydrology is still present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A021

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fraxinus pennsylvanica	60	✔	FACW
2. Cephalanthus occidentalis	5		OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Herb Stratum (Plot size: 5 ft r)			
1. Apios americana	20	✔	FACW
2. Peltandra virginica	15	✔	OBL
3. Juncus effusus	15	✔	FACW
4. Typha latifolia	10		OBL
5. Boehmeria cylindrica	5		FACW
6. Carex lurida	5		OBL
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	135 (A)		235 (B)

Prevalence Index = B/A = 1.74

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test, and prevalence index are met.

SOIL Sampling Point: SP-A021

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	N 6/	85	10YR 5/6	15	C	PL / M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ✔ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F2 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A022

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.805909 Long: -79.365771 Datum: NAD 83

Soil Map Unit Name: 41A - Hatboro silt loam, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A010b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 4
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, C3, D2, and D5 are present. Indicators A2 and A3 may be misapplied due to recent rainfall event, however, wetland hydrology is still present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A022

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus rubra	35	✔	FAC
2. Acer rubrum	10	✔	FAC
3. Quercus phellos	5		FAC
4.			
5.			
6.			
7.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ulmus rubra	20	✔	FAC
2. Rosa palustris	15	✔	OBL
3. Ilex decidua	10		FACW
4. Quercus phellos	5		FAC
5. Quercus bicolor	5		FACW
6.			
7.			
8.			
9.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Herb Stratum (Plot size: 5 ft r)			
1. Glyceria striata	50	✔	OBL
2. Lysimachia nummularia	20	✔	FACW
3. Carex vulpinoidea	15		OBL
4. Carex tribuloides	5		FACW
5.			FACW
6.			OBL
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	40	x 2 =	80
FAC species	75	x 3 =	225
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	195 (A)		385 (B)

Prevalence Index = B/A = 1.97

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A022

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/1	80	10YR 5/6	20	C	PL / M	Clay Loam	
8 - 20	10YR 6/1	80	10YR 5/6	20	C	PL / M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A023

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.80769 Long: -79.36412 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A010a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours. Vegetation, soils, and hydrology significantly disturbed by natural gas pipeline right of way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are met. Significant rainfall event within the past 24 hours. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A023

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Bromus hordeaceus	45	✔	UPL
2. Dichanthelium clandestinum	35	✔	FAC
3. Lonicera japonica	10		FACU
4. Poa pratensis	5		FACU
5. Verbesina alternifolia	5		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	15	x 4 =	60
UPL species	45	x 5 =	225
Column Totals:	100 (A)		405 (B)

Prevalence Index = B/A = 4.05

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met. Vegetation significantly disturbed by natural gas pipeline right of way.

SOIL Sampling Point: SP-A023

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 4/3	100					Silt Loam	
4 - 20	7.5YR 5/3	95	7.5YR 5/6	5	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Soils significantly disturbed by natural gas pipeline right of way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-04

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A024

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.80761 Long: -79.364161 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A010a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right of way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3, and D2 are present. Significant rainfall event within the past 24 hours, hydrology naturally problematic. Hydrology significantly disturbed by natural gas pipeline right of way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A024

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	40	✔	FAC
2. Solidago altissima	15	✔	FACU
3. Agrostis capillaris	10		FAC
4. Commelina virginica	5		FACW
5. Glyceria striata	5		OBL
6. Verbesina alternifolia	5		FAC
7. Persicaria sagittata	5		OBL
8. Asclepias syriaca	5		FACU
9. Hibiscus moscheutos	5		OBL
10. Eutrochium maculatum	5		FACW
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	10	x 2 =	20
FAC species	55	x 3 =	165
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		280 (B)

Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Prevalence index is met. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A024

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 7	7.5YR 5/3	90	7.5YR 5/6	10	C	M	Silt Loam	
7 - 20	7.5YR 5/2	90	7.5YR 5/6	10	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Soils significantly disturbed by natural gas pipeline right of way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A025

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.808683 Long: -79.362773 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A011. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right of way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are met. Hydrology significantly disturbed by natural gas pipeline right of way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A025

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa multiflora	20	✔	FACU
2. Rubus allegheniensis	10	✔	FACU
3. Fraxinus pennsylvanica	5		FACW
4. Spiraea japonica	5		FACU
5. Liquidambar styraciflua	5		FAC
6.			
7.			
8.			
9.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	35	✔	FACU
2. Solidago altissima	15	✔	FACU
3. Solidago gigantea	10	✔	FACW
4. Juncus tenuis	10	✔	FAC
5. Rumex crispus	5		FAC
6. Erigeron annuus	5		FACU
7. Carex vulpinoidea	5		OBL
8. Agrostis capillaris	5		FAC
9. Dichanthelium scoparium	5		FACW
10. Toxicodendron radicans	5		FAC
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	20	x 2 =	40
FAC species	30	x 3 =	90
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	145 (A)		495 (B)

Prevalence Index = B/A = 3.41

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed. Vegetation significantly disturbed by natural gas right-of-way.

SOIL Sampling Point: SP-A025

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 5/2	95	7.5YR 5/6	5	C	M	Silt Loam	
4 - 10	7.5YR 6/2	90	7.5YR 5/6	10	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 10+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Excavation beyond 10 inches was prevented by compacted layer. Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A026

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.808632 Long: -79.362778 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A011. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3, D2, and D5 are present. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A026

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Carex frankii	20	✔	OBL
2. Juncus effusus	15	✔	FACW
3. Carex tribuloides	15	✔	FACW
4. Persicaria hydropiperoides	15	✔	OBL
5. Commelina virginica	10		FACW
6. Agrostis stolonifera	10		FACW
7. Solidago gigantea	5		FACW
8. Verbesina alternifolia	5		FAC
9. Bidens aristosa	5		FACW
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	60	x 2 =	120
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		170 (B)

Prevalence Index = B/A = 1.70

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test, and prevalence index are met. Vegetation significantly disturbed by natural gas pipeline right of way.

SOIL Sampling Point: SP-A026

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 5/2	90	7.5YR 5/8	10	C	M	Silt Loam	
8 - 20	10YR 5/3	85	7.5YR 5/8	15	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Soils significantly disturbed by natural gas pipeline right of way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A027

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.809163 Long: -79.361974 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PSS W-A012. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A027

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Quercus phellos	25	✔	FAC
2. Diospyros virginiana	10	✔	FAC
3. Juniperus virginiana	5		FACU
4. Fraxinus pennsylvanica	5		FACW
5. Liquidambar styraciflua	5		FAC
6. Rubus allegheniensis	5		FACU
7.			
8.			
9.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Herb Stratum (Plot size: 5 ft r)			
1. Andropogon virginicus	35	✔	FACU
2. Lonicera japonica	15	✔	FACU
3. Parthenocissus quinquefolia	10	✔	FACU
4. Schedonorus arundinaceus	10	✔	FACU
5. Toxicodendron radicans	5		FAC
6. Juncus effusus	5		FACW
7. Agrimonia parviflora	5		FACW
8. Juncus tenuis	5		FAC
9. Dichanthelium scoparium	5		FACW
10. Smilax rotundifolia	5		FAC
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	55	x 3 =	165
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	155 (A)		525 (B)

Prevalence Index = B/A = 3.38

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A027

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	7.5YR 4/2	100					Silt Loam	
6 - 16	10YR 5/2	100					Silt Loam	
16 - 20	10YR 6/2	95	10YR 6/6	5	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators of hydric soil are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A028

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.809111 Long: -79.361995 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PSS W-A012. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2, D3, and D5 are present. Compacted clay layer capable of perching water within 12 inches of soil surface present at a depth of 10 inches.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A028

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Quercus phellos	35	✔	FAC
2. Fraxinus pennsylvanica	15	✔	FACW
3. Liquidambar styraciflua	10		FAC
4. Rubus allegheniensis	5		FACU
5.			
6.			
7.			
8.			
9.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	50	✔	FACU
2. Juncus tenuis	30	✔	FAC
3. Smilax rotundifolia	10		FAC
4. Agrimonia parviflora	5		FACW
5. Dichanthelium scoparium	5		FACW
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	85	x 3 =	255
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	165 (A)		525 (B)

Prevalence Index = B/A = 3.18

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A028

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 6/2	90	7.5YR 5/8	10	C	M	Silty Clay Loam	
2 - 10	10YR 6/2	80	10YR 5/6	20	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compacted clay

Depth (inches): 10+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Excavation beyond 10 inches prevented by compacted clay layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A029

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.811403 Long: -79.359587 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PSS W-A013b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A029

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ligustrum sinense	20	✔	FACU
2. Alnus serrulata	15	✔	OBL
3. Diospyros virginiana	10	✔	FAC
4. Quercus phellos	10	✔	FAC
5. Cornus amomum	10	✔	FACW
6. Fraxinus pennsylvanica	5		FACW
7. Rubus allegheniensis	5		FACU
8. Liquidambar styraciflua	5		FAC
9.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	50	✔	FAC
2. Verbesina alternifolia	15	✔	FAC
3. Solidago altissima	15	✔	FACU
4. Lonicera japonica	10		FACU
5. Eutrochium maculatum	5		FACW
6. Agrimonia parviflora	5		FACW
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	10	✔	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 77.77 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	25	x 2 =	50
FAC species	100	x 3 =	300
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	190 (A)		565 (B)

Prevalence Index = B/A = 2.97

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A029

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 6/2	85	7.5YR 5/8	15	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A030

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.811119 Long: -79.359913 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A013d. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B10, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A030

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	65	✔	FAC
2. Liriodendron tulipifera	15		FACU
3. Quercus phellos	10		FAC
4.			
5.			
6.			
7.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	50	✔	FAC
2. Rosa multiflora	10		FACU
3. Quercus phellos	10		FAC
4. Liquidambar styraciflua	5		FAC
5. Betula nigra	5		FACW
6.			
7.			
8.			
9.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Herb Stratum (Plot size: 5 ft r)			
1. Viola striata	10	✔	FACW
2. Lindera benzoin	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	145	x 3 =	435
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	185 (A)		565 (B)

Prevalence Index = B/A = 3.05

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A030

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 5/2	80	10YR 5/6	20	C	M	Silty Clay Loam	
16 - 20	10YR 6/1	80	10YR 5/6	20	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A031

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.811752 Long: -79.359395 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A013a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A031

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Glechoma hederacea	25	✔	FACU
2. Dichanthelium clandestinum	20	✔	FAC
3. Anthoxanthum odoratum	15	✔	FACU
4. Schedonorus arundinaceus	15	✔	FACU
5. Solanum carolinense	10		FACU
6. Achillea millefolium	5		FACU
7. Verbesina alternifolia	5		FAC
8. Erigeron annuus	5		FACU
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	100 (A)		375 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophtic vegetation are met. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A031

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/3	100					Silt Loam	
2 - 4	N 7/	90	10YR 5/6	10	C	M	Clay Loam	
4 - 20	10YR 5/3	80	10YR 5/8	20	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ✔ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F2 is met. Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A032

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.811697 Long: -79.35946 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A013a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology signiifcantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, D2, and D5 are met. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A032

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa multiflora	5	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Glechoma hederacea	30	✔	FACU
2. Solidago gigantea	15	✔	FACW
3. Symphyotrichum puniceum	15	✔	OBL
4. Impatiens capensis	10		FACW
5. Schedonorus arundinaceus	10		FACU
6. Dichanthelium clandestinum	5		FAC
7. Solidago altissima	5		FACU
8. Carex lurida	5		OBL
9. Juncus effusus	5		FACW
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	30	x 2 =	60
FAC species	5	x 3 =	15
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	105 (A)		295 (B)

Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Prevalence index is met. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A032

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/1	85	7.5YR 5/6	15	C	PL / M	Silty Clay Loam	
4 - 20	N 3/	85	7.5YR 5/8	15	C	PL / M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A033

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.811854 Long: -79.359027 Datum: NAD 83

Soil Map Unit Name: 7A - Codorus loam, 0 to 2 percent slopes, occasionally flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A033

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Ulmus rubra	20	✔	FAC
3. Liquidambar styraciflua	15		FAC
4. Quercus phellos	10		FAC
5. Betula nigra	5		FACW
6. Liriodendron tulipifera	5		FACU
7.			
	85	= Total Cover	
50% of total cover: 42.5	20% of total cover: 17		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Viburnum prunifolium	25	✔	FACU
2. Rosa multiflora	25	✔	FACU
3. Ligustrum sinense	20	✔	FACU
4. Lindera benzoin	15		FAC
5. Asimina triloba	10		FAC
6. Carya tomentosa	5		UPL
7.			
8.			
9.			
	100	= Total Cover	
50% of total cover: 50	20% of total cover: 20		
Herb Stratum (Plot size: 5 ft r)			
1. Dennstaedtia punctilobula	25	✔	FACU
2. Circaea canadensis	10	✔	FACU
3. Agrostis perennans	10	✔	FACU
4. Toxicodendron radicans	5		FAC
5. Campsis radicans	5		FAC
6. Parthenocissus quinquefolia	5		FACU
7.			
8.			
9.			
10.			
11.			
	60	= Total Cover	
50% of total cover: 30	20% of total cover: 12		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	110	x 3 =	330
FACU species	125	x 4 =	500
UPL species	5	x 5 =	25
Column Totals:	245 (A)		865 (B)

Prevalence Index = B/A = 3.53

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A033

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/3	100					Silt Loam	
2 - 10	10YR 5/3	90	10YR 5/6	10	C	M	Silt Loam	
10 - 20	10YR 5/2	90	10YR 5/6	10	C	M		
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A034

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.816875 Long: -79.354346 Datum: NAD 83

Soil Map Unit Name: 9B - Lackstown fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A014. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by agriculture.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Hydrology significantly disturbed by agriculture.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A034

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	35	✔	FACU
2. Paspalum dilatatum	20	✔	FAC
3. Poa annua	15		FACU
4. Ludwigia palustris	15		OBL
5. Kummerowia striata	10		FACU
6. Ranunculus hispidus	5		FAC
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	100 (A)		330 (B)

Prevalence Index = B/A = 3.30

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A034

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 1	10YR 5/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 1+

Hydric Soil Present? **Yes** ____ **No** ✔

Remarks:

No indicators are met. Excavation below 1 inch prevented by compaction. Soils significantly disturbed by agriculture.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A035

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.81624 Long: -79.354314 Datum: NAD 83

Soil Map Unit Name: 9B - Lackstown fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A014, representative of conditions in PEM W-A016. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soils, and hydrology significantly disturbed by natural gas pipeline right-of-way. See remarks in soils section for a discussion of disturbed soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2, D3, and D5 are met. Soils significantly disturbed by natural gas pipeline right-of-way. Compacted clay layer capable of perching water within 12 inches of the soil surface present at a depth of 10 inches.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A035

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium scoparium	30	✔	FACW
2. Juncus effusus	30	✔	FACW
3. Schedonorus arundinaceus	30	✔	FACU
4. Bromus catharticus	10		UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	10	x 5 =	50
Column Totals:	100 (A)		290 (B)

Prevalence Index = B/A = 2.90

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A035

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/3	90	10YR 5/6	10	C	M	Sandy Clay Loam	
8 - 10	10YR 5/2	80	10YR 5/6	20	C	M		
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 10+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

No indicators are met. Excavation below 10 inches prevented by compaction. Though no indicators are present, there is a layer that meets the color requirements of F3 (Depleted Matrix) present that may extend below the compacted layer. Additionally, soils are significantly disturbed by a natural gas pipeline right-of-way. Because wetland hydrology and hydrophytic vegetation are present, this area is assumed to be wetland under normal, undisturbed circumstances.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A036

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.816145 Long: -79.353327 Datum: NAD 83

Soil Map Unit Name: 9B - Lackstown fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A015. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 13
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 8

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A3, B10, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A036

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Scirpus atrovirens	5	✔	OBL
2. Viburnum dentatum	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	10 (A)		20 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met. Though the wetland appears to be in a forested area, no trees or shrubs are rooted within the wetland itself.

SOIL Sampling Point: SP-A036

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/2	100					Sandy Loam	
2 - 8	10YR 6/2	85	10YR 5/6	15	C	M		
8 - 20	10YR 6/1	70	10YR 5/6	30	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A037

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Berm Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.816153 Long: -79.35337 Datum: NAD 83

Soil Map Unit Name: 9B - Lackstown fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A015. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A037

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Quercus phellos	20	✔	FAC
3. Quercus alba	20	✔	FACU
4. Nyssa sylvatica	10		FAC
5.			
6.			
7.			
	80	= Total Cover	
50% of total cover: 40	20% of total cover: 16		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Viburnum dentatum	20	✔	FAC
2. Nyssa sylvatica	10	✔	FAC
3. Fraxinus pennsylvanica	10	✔	FACW
4.			
5.			
6.			
7.			
8.			
9.			
	40	= Total Cover	
50% of total cover: 20	20% of total cover: 8		

Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	30	✔	FAC
2. Parthenocissus quinquefolia	15	✔	FACU
3. Vitis rotundifolia	10		FAC
4. Euonymus americanus	5		FAC
5. Asplenium platyneuron	5		FACU
6. Viola striata	5		FACW
7.			
8.			
9.			
10.			
11.			
	70	= Total Cover	
50% of total cover: 35	20% of total cover: 14		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	135	x 3 =	405
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	190 (A)		595 (B)

Prevalence Index = B/A = 3.13

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A037

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/2	100					Sandy Clay Loam	
2 - 20	10YR 5/3	90	10YR 5/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-05

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A038

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.783393 Long: -79.388972 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A072. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C9 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A038

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus occidentalis	80	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Campsis radicans	5	✔	FAC
2. Persicaria longiseta	5	✔	FAC
3. Rosa multiflora	5	✔	FACU
4. Viola striata	5	✔	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		220 (B)

Prevalence Index = B/A = 2.20

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A038

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
10 - 20	10YR 5/2	90	10YR 5/6	10	C	M		
0 - 10	10YR 5/3	95	10YR 5/6	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-19

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A038a

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.7834302 Long: -79.3889288 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A072. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A038a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carpinus caroliniana	60	✔	FAC
2. Liriodendron tulipifera	30	✔	FACU
3.			
4.			
5.			
6.			
7.			
	90 = Total Cover		
50% of total cover: 45.00	20% of total cover: 18.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	5	✔	FAC
2. Morus rubra	5	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5.00	20% of total cover: 2.00		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	20	✔	FAC
2. Lonicera japonica	10	✔	FACU
3. Viburnum prunifolium	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35 = Total Cover		
50% of total cover: 17.50	20% of total cover: 7.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	135 (A)		455 (B)

Prevalence Index = B/A = 3.37

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A038a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	5YR 4/6	100					Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A039

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.736344 Long: -79.438793 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PEM W-A017. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by grazing.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3 and D2 are present. Hydrology significantly disturbed by grazing.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A039

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Persicaria pensylvanica	15	✔	FACW
2. Poa annua	15	✔	FACU
3. Schedonorus arundinaceus	15	✔	FACU
4. Trifolium pratense	15	✔	FACU
5. Juncus tenuis	10		FAC
6. Microstegium vimineum	10		FAC
7. Carex tribuloides	5		FACW
8. Eupatorium capillifolium	5		FACU
9. Ludwigia palustris	5		OBL
10. Plantago lanceolata	5		UPL
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	20	x 2 =	40
FAC species	20	x 3 =	60
FACU species	50	x 4 =	200
UPL species	5	x 5 =	25
Column Totals:	100 (A)		330 (B)

Prevalence Index = B/A = 3.30

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met. Vegetation significantly disturbed by grazing.

SOIL Sampling Point: SP-A039

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 5/3	90	7.5YR 5/6	10	C	PL / M	Sandy Clay Loam	
4 - 20	7.5YR 5/2	80	7.5YR 5/8	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met. Soils significantly disturbed by grazing.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A039a

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.7362576 Long: -79.4387803 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A017. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A039a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Poa annua	20	✔	FACU
2. Diodia virginiana	15	✔	FACW
3. Trifolium pratense	15	✔	FACU
4. Microstegium vimineum	10		FAC
5. Eupatorium capillifolium	5		FACU
6. Persicaria pensylvanica	5		FACW
7. Vernonia gigantea	5		FAC
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.50	20% of total cover: 15.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	15	x 3 =	45
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	75 (A)		245 (B)

Prevalence Index = B/A = 3.26

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A039a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	7.5YR 5/4	85	7.5YR 5/8	15	C	M	Clay Loam	
3 - 20	7.5YR 5/3	85	7.5YR 5/8	15	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A040

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.736477 Long: -79.438788 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A017. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by grazing.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3 and D2 are met. Hydrology significantly disturbed by grazing.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A040

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Ludwigia palustris	20	✔	OBL
2. Microstegium vimineum	15	✔	FAC
3. Juncus effusus	15	✔	FACW
4. Hordeum pusillum	10	✔	FAC
5. Trifolium pratense	10	✔	FACU
6. Schedonorus arundinaceus	10	✔	FACU
7. Dichanthelium scoparium	5		FACW
8. Poa annua	5		FACU
9. Eupatorium capillifolium	5		FACU
10. Juncus tenuis	5		FAC
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	20	x 2 =	40
FAC species	30	x 3 =	90
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	100 (A)		270 (B)

Prevalence Index = B/A = 2.70

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met. Vegetation significantly disturbed by grazing.

SOIL Sampling Point: SP-A040

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/2	80	7.5YR 5/8	20	C	PL / M		
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met, soils significantly disturbed by grazing.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A041

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.788059 Long: -79.384373 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A019. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 8

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B10, and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A041

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	30	✔	FACU
2. Liriodendron tulipifera	30	✔	FACU
3. Acer rubrum	20	✔	FAC
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	60	✔	FAC
2. Smilax rotundifolia	10		FAC
3. Boehmeria cylindrica	10		FACW
4. Carex vulpinoidea	5		OBL
5. Carex intumescens	5		FACW
6. Glyceria striata	5		OBL
7. Persicaria longiseta	5		FAC
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	15	x 2 =	30
FAC species	100	x 3 =	300
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	185 (A)		580 (B)

Prevalence Index = B/A = 3.13

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A041

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/2	95	7.5YR 5/8	5	C	PL / M	Sandy Clay Loam	
8 - 20	10YR 5/2	90	10YR 5/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A042

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Undulating Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.788115 Long: -79.384369 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A019. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A042

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	30	✔	FACU
2. Fagus grandifolia	25	✔	FACU
3. Carya glabra	20	✔	FACU
4. Acer rubrum	10		FAC
5. Quercus alba	5		FACU
6.			
7.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fagus grandifolia	5	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	30	✔	FAC
2. Euonymus americanus	5		FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	5	✔	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	135 (A)		490 (B)

Prevalence Index = B/A = 3.62

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A042

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 3/1	100					Silt Loam	
4 - 16	10YR 5/2	100					Sandy Loam	
16 - 20	2.5Y 6/3	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A043

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.77319 Long: -79.399643 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A020. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B3, B10, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A043

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carpinus caroliniana	70	✔	FAC
2. Carya glabra	5		FACU
3. Quercus phellos	5		FAC
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	5	✔	FAC
2. Betula nigra	5	✔	FACW
3. Fraxinus pennsylvanica	5	✔	FACW
4. Liquidambar styraciflua	5	✔	FAC
5. Quercus phellos	5	✔	FAC
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	20	✔	FAC
2. Toxicodendron radicans	10	✔	FAC
3. Impatiens capensis	5		FACW
4. Boehmeria cylindrica	5		FACW
5. Commelina virginica	5		FACW
6. Elymus virginicus	5		FACW
7. Carex debilis	5		FAC
8.			
9.			
10.			
11.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	125	x 3 =	375
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	160 (A)		455 (B)

Prevalence Index = B/A = 2.84

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A043

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	7.5YR 5/2	95	7.5YR 5/8	5	C	M	Sandy Clay Loam	
2 - 20	7.5YR 5/2	80	7.5YR 5/8	20	C	M		
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A044

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.773222 Long: -79.399672 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks:

Upland sample plot adjacent to PFO W-A020. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B3, B10, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A044

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	30	✔	FACU
2. Carpinus caroliniana	30	✔	FAC
3. Acer rubrum	25	✔	FAC
4. Quercus michauxii	5		FACW
5.			
6.			
7.			
	90	= Total Cover	
50% of total cover: 45	20% of total cover: 18		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	40	✔	FAC
2. Carya glabra	5		FACU
3. Ligustrum sinense	5		FACU
4. Rosa multiflora	5		FACU
5. Ilex decidua	5		FACW
6.			
7.			
8.			
9.			
	60	= Total Cover	
50% of total cover: 30	20% of total cover: 12		
Herb Stratum (Plot size: 5 ft r)			
1. Carex atlantica	15	✔	FACW
2. Agrostis stolonifera	10	✔	FACW
3. Smilax rotundifolia	10	✔	FAC
4. Parthenocissus quinquefolia	5		FACU
5. Rubus allegheniensis	5		FACU
6. Commelina virginica	5		FACW
7. Bignonia capreolata	5		FAC
8. Campsis radicans	5		FAC
9.			
10.			
11.			
	60	= Total Cover	
50% of total cover: 30	20% of total cover: 12		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	115	x 3 =	345
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	210 (A)		645 (B)

Prevalence Index = B/A = 3.07

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A044

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	7.5YR 4/2	100					Silt Loam	
2 - 20	7.5YR 4/4	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A045

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.772797 Long: -79.399696 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A021. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B3, B6, B10, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A045

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	25	✔	FAC
2. Platanus occidentalis	10	✔	FACW
3.			
4.			
5.			
6.			
7.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	55	✔	FAC
2. Ligustrum sinense	30	✔	FACU
3. Acer negundo	15		FAC
4.			
5.			
6.			
7.			
8.			
9.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	10	✔	FAC
2. Impatiens capensis	5	✔	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	30	✔	FAC
2.			
3.			
4.			
5.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	135	x 3 =	405
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	180 (A)		555 (B)

Prevalence Index = B/A = 3.08

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A045

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/2	80	7.5YR 5/8	20	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A046

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.772711 Long: -79.399676 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A021. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A046

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus michauxii	30	✔	FACW
2. Liriodendron tulipifera	15	✔	FACU
3. Pinus taeda	10		FAC
4.			
5.			
6.			
7.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa multiflora	25	✔	FACU
2. Prunus serotina	15	✔	FACU
3. Acer negundo	15	✔	FAC
4. Rubus allegheniensis	10		FACU
5. Carpinus caroliniana	5		FAC
6.			
7.			
8.			
9.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	25	✔	FAC
2. Rubus allegheniensis	25	✔	FACU
3. Solidago gigantea	10		FACW
4. Toxicodendron radicans	10		FAC
5. Rudbeckia laciniata	10		FACW
6. Rumex crispus	5		FAC
7. Eutrochium maculatum	5		FACW
8.			
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.85 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	55	x 2 =	110
FAC species	70	x 3 =	210
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	215 (A)		680 (B)

Prevalence Index = B/A = 3.16

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A046

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 4/3	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A047

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.771705 Long: -79.400688 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks:

Upland sample plot adjacent to PFO W-A022. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A047

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus rubra	45	✔	FAC
2. Acer rubrum	15	✔	FAC
3.			
4.			
5.			
6.			
7.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Lindera benzoin	20	✔	FAC
2. Acer negundo	15	✔	FAC
3. Carpinus caroliniana	10	✔	FAC
4. Acer rubrum	5		FAC
5.			
6.			
7.			
8.			
9.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Herb Stratum (Plot size: 5 ft r)			
1. Elymus virginicus	90	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	110	x 3 =	330
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	200 (A)		510 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A047

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/3	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A048

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.771711 Long: -79.400856 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A022. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A048

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Platanus occidentalis	30	✔	FACW
3. Acer negundo	20	✔	FAC
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ulmus rubra	5	✔	FAC
2. Acer negundo	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft r)			
1. Elymus virginicus	90	✔	FACW
2. Carex intumescens	5		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	125	x 2 =	250
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	185 (A)		430 (B)

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A048

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/2	95	7.5YR 5/8	5	C	PL / M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A049

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.771891 Long: -79.400291 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔ No ___
Hydric Soil Present?	Yes ✔	No ___		
Wetland Hydrology Present?	Yes ✔	No ___		

Remarks:

Wetland sample plot in PFO W-A023. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, D2, and D5 are present. Significant rainfall event in the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A049

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	25	✔	FAC
2. Platanus occidentalis	10	✔	FACW
3. Salix nigra	5		OBL
4.			
5.			
6.			
7.			
	40 = Total Cover		
50% of total cover: 20	20% of total cover: 8		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fraxinus pennsylvanica	10	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft r)			
1. Persicaria arifolia	35	✔	OBL
2. Commelina virginica	30	✔	FACW
3. Carex crinita	15		OBL
4. Sparganium americanum	10		OBL
5. Boehmeria cylindrica	5		FACW
6. Glyceria septentrionalis	5		OBL
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	55	x 2 =	110
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	150 (A)		255 (B)

Prevalence Index = B/A = 1.70

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A049

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 6/1	75	7.5YR 5/8	25	C	PL / M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A050

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.771801 Long: -79.400218 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A023. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D5 is present. Significant rainfall event in the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A050

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus occidentalis	25	✔	FACW
2. Acer rubrum	25	✔	FAC
3. Liquidambar styraciflua	15	✔	FAC
4. Carpinus caroliniana	5		FAC
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	20	✔	FAC
2. Liquidambar styraciflua	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	20	✔	FAC
2. Amphicarpaea bracteata	15	✔	FAC
3. Agrostis perennans	10		FACU
4. Galium aparine	10		FACU
5. Polystichum acrostichoides	10		FACU
6. Persicaria longiseta	5		FAC
7. Verbesina alternifolia	5		FAC
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	115	x 3 =	345
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	170 (A)		515 (B)

Prevalence Index = B/A = 3.02

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met.

SOIL Sampling Point: SP-A050

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	7.5YR 4/3	100					Silt Loam	
16 - 20	7.5YR 4/2	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A051

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.76639 Long: -79.400142 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PSS W-A024. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Significant rainfall event in the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A051

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix nigra	20	✔	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rosa multiflora	10	✔	FACU
2. Rubus allegheniensis	10	✔	FACU
3. Sambucus nigra	5		FAC
4. Fraxinus pennsylvanica	5		FACW
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Carex crinita	25	✔	OBL
3. Onoclea sensibilis	20	✔	FACW
4. Scirpus atrovirens	5		OBL
5. Impatiens capensis	5		FACW
6. Carex lurida	5		OBL
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	30	x 2 =	60
FAC species	45	x 3 =	135
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	150 (A)		330 (B)

Prevalence Index = B/A = 2.20

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A051

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/2	85	7.5YR 5/6	15	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A052

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.766325 Long: -79.400192 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PSS W-A024. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours.. Vegetation, soil, and hydrology significantly disturbed, sample plot within existing road.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Significant rainfall event in the past 24 hours. Hydrology significantly disturbed by maintenance of access road.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A052

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	15	✔	FAC
2. Prunus avium	10	✔	UPL
3. Liriodendron tulipifera	5		FACU
4.			
5.			
6.			
7.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rubus allegheniensis	60	✔	FACU
2. Rosa multiflora	15		FACU
3. Sambucus nigra	10		FAC
4. Fraxinus pennsylvanica	5		FACW
5.			
6.			
7.			
8.			
9.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Herb Stratum (Plot size: 5 ft r)			
1. Apios americana	20	✔	FACW
2. Lonicera japonica	15	✔	FACU
3. Dichanthelium clandestinum	15	✔	FAC
4. Impatiens capensis	10		FACW
5. Lysimachia ciliata	5		FACW
6. Potentilla simplex	5		FACU
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	40	x 3 =	120
FACU species	100	x 4 =	400
UPL species	10	x 5 =	50
Column Totals:	190 (A)		650 (B)

Prevalence Index = B/A = 3.42

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed. Vegetation significantly disturbed by maintenance of access road.

SOIL Sampling Point: SP-A052

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	7.5YR 5/2	85	7.5YR 5/8	15	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 10+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Excavation beyond 10 inches prevented by compacted soil layer. Soils significantly disturbed by maintenance of access road.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A053

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.74146 Long: -79.433948 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A025. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Saturation present at soil surface, however, no water table was present. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A053

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Impatiens capensis	40	✔	FACW
2. Leersia oryzoides	40	✔	OBL
3. Commelina virginica	20	✔	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		160 (B)

Prevalence Index = B/A = 1.60

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test, and prevalence index are passed.

SOIL Sampling Point: SP-A053

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 4/1	90	10YR 4/6	10	C	M	Sandy Clay Loam	
6 - 20	10YR 4/1	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A054

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4

Subregion (LRR or MLRA): P 136 Lat: 36.741524 Long: -79.434021 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A025. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Significant rainfall event in the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A054

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	50	✔	FACU
2. Acer rubrum	10		FAC
3.			
4.			
5.			
6.			
7.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Juniperus virginiana	10	✔	FACU
2. Ligustrum sinense	5	✔	FACU
3. Prunus avium	5	✔	UPL
4. Rubus allegheniensis	5	✔	FACU
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	50	✔	FAC
2. Juncus tenuis	10	✔	FAC
3. Schedonorus arundinaceus	10	✔	FACU
4. Lolium perenne	10	✔	FACU
5. Trifolium repens	10	✔	FACU
6. Oxalis corniculata	5		FACU
7. Eupatorium capillifolium	5		FACU
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	70	x 3 =	210
FACU species	110	x 4 =	440
UPL species	5	x 5 =	25
Column Totals:	185 (A)		675 (B)

Prevalence Index = B/A = 3.64

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A054

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	7.5YR 5/2	100					Sandy Loam	
2 - 8	7.5YR 5/4	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 8+

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Excavation beyond 8 inches prevented by compaction.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A055

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4

Subregion (LRR or MLRA): P 136 Lat: 36.746208 Long: -79.429961 Datum: NAD 83

Soil Map Unit Name: 21E - Poplar Forest fine sandy loam, 25 to 45 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A026. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D5 is present. Significant rainfall event in the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A055

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	45	✔	FAC
2. Juncus effusus	35	✔	FACW
3. Schedonorus arundinaceus	10		FACU
4. Verbesina alternifolia	5		FAC
5. Solidago gigantea	5		FACW
6. Bromus hordeaceus	5		UPL
7.			
8.			
9.			
10.			
11.			
	105 = Total Cover		
50% of total cover: 52.5	20% of total cover: 21		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	50	x 3 =	150
FACU species	10	x 4 =	40
UPL species	5	x 5 =	25
Column Totals:	105 (A)		295 (B)

Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A055

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 5/2	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: 8+

Depth (inches): Compaction

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Excavation below 8 inches prevented by compaction.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A056

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.746172 Long: -79.429973 Datum: NAD 83

Soil Map Unit Name: 21E - Poplar Forest fine sandy loam, 25 to 45 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A026. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 13
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 7

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, D2, and D5 are present. Indicators A2 and A3 may be misapplied due to recent rainfall event, however, wetland hydrology is still present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A056

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Sambucus nigra	10	✔	FAC
2. Liriodendron tulipifera	5	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	25	✔	FACW
2. Symphyotrichum puniceum	15	✔	OBL
3. Dichanthelium clandestinum	15	✔	FAC
4. Leersia oryzoides	15	✔	OBL
5. Lonicera japonica	5		FACU
6. Eupatorium perfoliatum	5		FACW
7. Verbesina alternifolia	5		FAC
8. Carex lurida	5		OBL
9. Lysimachia nummularia	5		FACW
10. Agrimonia parviflora	5		FACW
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	40	x 2 =	80
FAC species	30	x 3 =	90
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	115 (A)		245 (B)

Prevalence Index = B/A = 2.13

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A056

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 7	10YR 4/3	100					Sandy Loam	
7 - 20	10YR 5/1	95	7.5YR 5/8	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A057

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.753477 Long: -79.423208 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A027. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within past 24 hours, hydrology naturally problematic. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B10, D2, and D5 are present. Indicators A2 and A3 may be misapplied due to recent rainfall event, however, wetland hydrology is still present. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A057

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Sambucus nigra	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	35	✔	FACW
2. Carex crinita	30	✔	OBL
3. Dichanthelium clandestinum	20	✔	FAC
4. Glyceria striata	5		OBL
5. Conium maculatum	5		FACW
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	40	x 2 =	80
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		190 (B)

Prevalence Index = B/A = 1.90

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A057

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/2	100					Sandy Loam	Gravel inclusions
4 - 20	10YR 5/2	80	10YR 5/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A058

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.75348 Long: -79.423245 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A027. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within past 24 hours. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Significant rainfall event in the past 24 hours. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A058

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rhus copallinum	10	✔	FACU
2. Rubus allegheniensis	10	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		

50% of total cover: 10 20% of total cover: 4

Herb Stratum (Plot size: 5 ft r)			
1. Solidago altissima	20	✔	FACU
2. Lonicera japonica	15	✔	FACU
3. Dichanthelium clandestinum	15	✔	FAC
4. Bromus hordeaceus	15	✔	UPL
5. Lespedeza cuneata	10		FACU
6. Anthoxanthum odoratum	10		FACU
7. Achillea millefolium	5		FACU
8. Oxalis corniculata	5		FACU
9. Verbesina alternifolia	5		FAC
10.			
11.			
	100 = Total Cover		

50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	85	x 4 =	340
UPL species	15	x 5 =	75
Column Totals:	120 (A)		475 (B)

Prevalence Index = B/A = 3.95

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A058

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	7.5YR 4/3	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 2+

Hydric Soil Present? **Yes** ____ **No** ✔

Remarks:

No indicators are present. Excavation beyond 2 inches prevented by compaction. Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A059

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.632603 Long: -79.543378 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A071a and PSS W-A071b. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Drier than normal antecedent precipitation conditions, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A059

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus alba	15	✔	FACU
2. Fagus grandifolia	5	✔	FACU
3. Diospyros virginiana	5	✔	FAC
4. Prunus serotina	5	✔	FACU
5. Acer rubrum	5	✔	FAC
6. Liquidambar styraciflua	5	✔	FAC
7. Pinus virginiana	5	✔	UPL
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	20	✔	FAC
2. Quercus falcata	10	✔	FACU
3. Juniperus virginiana	5		FACU
4. Quercus alba	5		FACU
5. Oxydendrum arboreum	5		UPL
6. Fagus grandifolia	5		FACU
7.			
8.			
9.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Herb Stratum (Plot size: 5 ft r)			
1. Quercus alba	5	✔	FACU
2. Euonymus americanus	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 45.45 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	55	x 4 =	220
UPL species	10	x 5 =	50
Column Totals:	105 (A)		390 (B)

Prevalence Index = B/A = 3.71

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A059

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	2.5Y 6/4	95	10YR 5/8	5	C	M	Sandy Loam	
8 - 12	2.5Y 6/2	90	7.5YR 5/6	10	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 12+

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Excavation beyond 12 inches prevented by compaction. Though a layer meeting the color requirements of indicator F3 (Depleted Matrix) is present, whether it met the depth requirements (6 inches) could not be assessed due to soil compaction. Due to the lack of hydrology indicators and dominance of wetland vegetation, the subject area is deemed to be non-wetland.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A060

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.734672 Long: -79.440360 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks:

Upland sample plot adjacent to PFO W-A028. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ✔ No____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B3, and B10 are present. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A060

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	15	✔	FAC
2. Prunus avium	10	✔	UPL
3. Liquidambar styraciflua	5		FAC
4.			
5.			
6.			
7.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	65	✔	FAC
2. Rosa multiflora	5		FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	30	✔	FAC
2. Dichanthelium clandestinum	5		FAC
3. Juncus tenuis	5		FAC
4. Ligustrum sinense	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	125	x 3 =	375
FACU species	10	x 4 =	40
UPL species	10	x 5 =	50
Column Totals:	145 (A)		465 (B)

Prevalence Index = B/A = 3.20

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A060

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3	95	7.5YR 5/6	5	C	M	Silt Loam	
12 - 20	10YR 5/3	85	7.5YR 5/8	15	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A061

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.734608 Long: -79.440419 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A028. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3 and D2 are present. Significant rainfall event within the past 24 hours, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A061

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	45	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	10	✔	FAC
2. Ligustrum sinense	5	✔	FACU
3. Prunus virginiana	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Herb Stratum (Plot size: 5 ft r)			
1. Murdannia keisak	40	✔	OBL
2. Microstegium vimineum	20	✔	FAC
3. Glyceria striata	10		OBL
4. Boehmeria cylindrica	5		FACW
5. Carex vulpinoidea	5		OBL
6. Impatiens capensis	5		FACW
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	10	x 2 =	20
FAC species	75	x 3 =	225
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	150 (A)		340 (B)

Prevalence Index = B/A = 2.26

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: SP-A061

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/1	95	10YR 4/6	5	C	M	Silty Clay Loam	
2 - 20	10YR 5/2	80	7.5YR 5/8	20	C	PL / M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A062

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.735062 Long: -79.439931 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A029b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Significant rainfall event in the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A062

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	65	✔	FAC
2. Liriodendron tulipifera	5		FACU
3. Pinus taeda	5		FAC
4.			
5.			
6.			
7.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liriodendron tulipifera	10	✔	FACU
2. Ligustrum sinense	5	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft r)			
1. Dennstaedtia punctilobula	25	✔	FACU
2. Smilax rotundifolia	20	✔	FAC
3. Microstegium vimineum	15	✔	FAC
4. Dichanthelium scoparium	10		FACW
5. Carex tribuloides	5		FACW
6. Lycopodium digitatum	5		UPL
7. Juncus effusus	5		FACW
8. Juniperus virginiana	5		FACU
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	105	x 3 =	315
FACU species	50	x 4 =	200
UPL species	5	x 5 =	25
Column Totals:	180 (A)		580 (B)

Prevalence Index = B/A = 3.22

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are met.

SOIL Sampling Point: SP-A062

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	7.5YR 4/3	100					Silty Clay Loam	
2 - 20	7.5YR 5/3	97	7.5YR 5/6	3	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A063

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.735037 Long: -79.439967 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A029b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Significant rainfall event in the past 24 hours.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A063

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	45	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ilex verticillata	10	✔	FACW
2. Juniperus virginiana	5	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	20	✔	FAC
2. Carex striata	10	✔	OBL
3. Dichanthelium clandestinum	10	✔	FAC
4. Glyceria striata	10	✔	OBL
5. Smilax rotundifolia	10	✔	FAC
6. Carex lurida	5		OBL
7. Onoclea sensibilis	5		FACW
8. Persicaria hydropiperoides	5		OBL
9. Eupatorium perfoliatum	5		FACW
10. Impatiens capensis	5		FACW
11. Juncus effusus	5		FACW
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	30	x 2 =	60
FAC species	85	x 3 =	255
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	150 (A)		365 (B)

Prevalence Index = B/A = 2.43

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A063

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/2	90	10YR 5/6	10	C	M	Silty Clay Loam	
4 - 20	10YR 5/1	90	10YR 5/6	10	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A064

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.735074 Long: -79.440021 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A029a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, B10, D2, and D5 are present. Significant rainfall event within the past 24 hours, hydrology naturally problematic. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A064

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	60	✔	FACW
2. Murdannia keisak	10		OBL
3. Bidens aristosa	5		FACW
4. Persicaria sagittata	5		OBL
5. Carex tribuloides	5		FACW
6. Eupatorium perfoliatum	5		FACW
7. Eutrochium maculatum	5		FACW
8. Impatiens capensis	5		FACW
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	85	x 2 =	170
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	115 (A)		230 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A064

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/2	80	7.5YR 5/6	20	C	PL / M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met. Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A065

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.729114 Long: -79.445717 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PSS W-030b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event in the past 24 hours, hydrology naturally problematic. Hydrology influenced by beaver activity, wetland is located upgradient of a beaver pond complex.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ✔ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B5, D2, and D5 are present. Significant rainfall event within the past 24 hours, hydrology naturally problematic. Hydrology influenced by beaver activity. Wetland is upgradient of a large beaver pond complex. Saturation present but water table was not observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A065

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	15	✔	FAC
2. Acer rubrum	10	✔	FAC
3. Alnus serrulata	5		OBL
4. Liriodendron tulipifera	5		FACU
5. Ligustrum sinense	5		FACU
6.			
7.			
8.			
9.			
	40 = Total Cover		
50% of total cover: 20	20% of total cover: 8		
Herb Stratum (Plot size: 5 ft r)			
1. Murdannia keisak	40	✔	OBL
2. Sagittaria latifolia	10		OBL
3. Leersia oryzoides	10		OBL
4. Impatiens capensis	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Lonicera japonica	10	✔	FACU
2. Vitis rotundifolia	5	✔	FAC
3.			
4.			
5.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	65	x 1 =	65
FACW species	5	x 2 =	10
FAC species	30	x 3 =	90
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	120 (A)		245 (B)

Prevalence Index = B/A = 2.04

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A065

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	5Y 4/1	95	2.5Y 6/6	5	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A066

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.72882 Long: -79.446127 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PEM W-A030a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within 24 hours. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator C3 is present. Significant rainfall event within the past 24 hours. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A066

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	25	✔	FAC
2. Solidago altissima	20	✔	FACU
3. Holcus lanatus	15	✔	FAC
4. Parthenocissus quinquefolia	10		FACU
5. Juncus tenuis	10		FAC
6. Anthoxanthum odoratum	5		FACU
7. Solanum carolinense	5		FACU
8. Asclepias syriaca	5		FACU
9. Dactylis glomerata	5		FACU
10. Solidago gigantea	5		FACW
11. Carex tribuloides	5		FACW
	110 = Total Cover		
50% of total cover: 55	20% of total cover: 22		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	50	x 3 =	150
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	110 (A)		370 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is met. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A066

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	7.5YR 4/3	95	7.5YR 5/6	5	C	PL / M	Sandy Loam	
2 - 10	10YR 5/3	90	7.5YR 5/6	10	C	PL / M	Sandy Loam	
10 - 20	10YR 6/3	80	7.5YR 5/6	20	C	PL / M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A067

Investigator(s): W. Jackson, C. Jerrett Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR or MLRA): P 136 Lat: 36.728834 Long: -79.446053 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A030a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Significant rainfall event within 24 hours, hydrology naturally problematic. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way. Hydrology influenced by beaver activity. Wetland is upgradient of a large beaver pond complex.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, D2, and D5 are met. Significant rainfall event within the past 24 hours, hydrology naturally problematic. Hydrology significantly disturbed by natural gas pipeline right-of-way. Hydrology influenced by beaver activity. Wetland is upgradient of a large beaver pond complex.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A067

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Eleocharis obtusa	50	✔	OBL
2. Impatiens capensis	20	✔	FACW
3. Holcus lanatus	10		FAC
4. Solidago gigantea	10		FACW
5. Dichanthelium clandestinum	5		FAC
6. Eupatorium capillifolium	5		FACU
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	30	x 2 =	60
FAC species	15	x 3 =	45
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		175 (B)

Prevalence Index = B/A = 1.75

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test, and prevalence index are met. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A067

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 6/2	95	10YR 5/6	5	C	PL / M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met. Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A068

Investigator(s): W. Jackson, M. Chin Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.72075 Long: -79.454958 Datum: NAD 83

Soil Map Unit Name: 11C3 - Minnieville clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A031. The USACE Antecedent Precipitation tool indicates drier than normal conditions were present 3 months prior to survey. Hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B3, B6, B10, and D2 are present. Drier than normal antecedent precipitation conditions, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A068

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	50	✔	FAC
2. Liriodendron tulipifera	20	✔	FACU
3. Platanus occidentalis	15		FACW
4.			
5.			
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Platanus occidentalis	10	✔	FACW
2. Acer rubrum	5	✔	FAC
3. Rubus allegheniensis	5	✔	FACU
4. Sambucus nigra	5	✔	FAC
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	45	✔	FAC
2. Glyceria striata	10		OBL
3. Scirpus atrovirens	10		OBL
4. Euonymus americanus	5		FAC
5. Eutrochium maculatum	5		FACW
6. Smilax rotundifolia	5		FAC
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	10	✔	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	30	x 2 =	60
FAC species	125	x 3 =	375
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	200 (A)		555 (B)

Prevalence Index = B/A = 2.77

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A068

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 4/2	95	7.5YR 5/6	5	C	M	Silt Loam	
8 - 15	7.5YR 6/1	85	7.5YR 5/6	15	C	M	Silt Loam	
15 - 20	7.5YR 6/3	90	10YR 6/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A069

Investigator(s): W. Jackson, M. Chin Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.720582 Long: -79.455112 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ✔, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PFO W-A031. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey, hydrology naturally problematic. Soils naturally problematic due to position in active floodplain. Though hydrology indicators are present and soils are problematic, the area in question should not be considered wetland due to the fact that the subject area is located on a convex sandbar, and that the only hydrology indicators present are likely from abnormal flood events.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ✔ No____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2 and B3 are present. Antecedent precipitation conditions drier than normal, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A069

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Prunus serotina	15	✔	FACU
2. Rubus allegheniensis	10	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	35	✔	FAC
2. Onoclea sensibilis	30	✔	FACW
3. Dichanthelium clandestinum	10		FAC
4. Smilax rotundifolia	10		FAC
5. Parthenocissus quinquefolia	5		FACU
6. Toxicodendron radicans	5		FAC
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	10	✔	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	85	x 3 =	255
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	145 (A)		435 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A069

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Soils naturally problematic due to position in active floodplain.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A070

Investigator(s): W. Jackson, M. Chin Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.720350 Long: -79.455207 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔ No ___
Hydric Soil Present?	Yes ___	No ✔		
Wetland Hydrology Present?	Yes ___	No ✔		

Remarks:

Upland sample plot adjacent to PFO W-A033. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D5 is present. Drier than normal antecedent precipitation conditions, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A070

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	70	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Cephalanthus occidentalis	10	✔	OBL
2. Prunus serotina	5	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft r)			
1. Amphicarpaea bracteata	35	✔	FAC
2. Microstegium vimineum	30	✔	FAC
3. Toxicodendron radicans	15		FAC
4. Dichanthelium clandestinum	10		FAC
5. Verbesina alternifolia	5		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Toxicodendron radicans	15	✔	FAC
2.			
3.			
4.			
5.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	0	x 2 =	0
FAC species	180	x 3 =	540
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	195 (A)		570 (B)

Prevalence Index = B/A = 2.92

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A070

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/6	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A071

Investigator(s): W. Jackson, M. Chin Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.720287 Long: -79.455256 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A033. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Drier than normal antecedent precipitation conditions, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A071

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	70	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	15	✔	FAC
2. Liriodendron tulipifera	5	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Herb Stratum (Plot size: 5 ft r)			
1. Impatiens capensis	35	✔	FACW
2. Microstegium vimineum	35	✔	FAC
3. Circaea canadensis	5		FACU
4. Solidago gigantea	5		FACW
5. Cryptotaenia canadensis	5		FAC
6. Onoclea sensibilis	5		FACW
7. Carex crinita	5		OBL
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	45	x 2 =	90
FAC species	125	x 3 =	375
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	185 (A)		510 (B)

Prevalence Index = B/A = 2.75

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A071

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/4	100					Sandy Clay Loam	
8 - 20	10YR 6/2	80	10YR 5/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A072

Investigator(s): W. Jackson, M. Chin Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.719161 Long: -79.457249 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A034. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Saturation present at soil surface however, water table was not observed. Drier than normal antecedent precipitation conditions, hydrology naturally problematic.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A072

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	50	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Alnus serrulata	10	✔	OBL
2. Oxydendrum arboreum	10	✔	UPL
3. Nyssa sylvatica	5	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Carex crinita	35	✔	OBL
2. Symphyotrichum puniceum	35	✔	OBL
3. Dichanthelium clandestinum	10		FAC
4. Eutrochium maculatum	10		FACW
5. Juncus effusus	10		FACW
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	20	x 2 =	40
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	175 (A)		365 (B)

Prevalence Index = B/A = 2.08

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A072

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/1	95	7.5YR 4/6	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A073

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 4

Subregion (LRR or MLRA): P 136 Lat: 36.71909051 Long: -79.45730524 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A034. The USACE Antecedent Precipitation Tool indicates that drier than normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Hydrology significantly disturbed by natural gas pipeline right of way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A073

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus palustris	15	✔	FACW
2. Acer rubrum	15	✔	FAC
3. Carya glabra	10	✔	FACU
4. Quercus alba	10	✔	FACU
5. Prunus serotina	10	✔	FACU
6. Quercus velutina	5		FACU
7.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Cornus florida	10	✔	FACU
2. Carya glabra	10	✔	FACU
3. Quercus alba	5		FACU
4. Quercus palustris	5		FACW
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 5 ft r)			
1. Rubus allegheniensis	25	✔	FACU
2. Parthenocissus quinquefolia	20	✔	FACU
3. Quercus velutina	15	✔	FACU
4. Dichanthelium clandestinum	10		FAC
5. Elymus hystrix	10		UPL
6. Lysimachia quadrifolia	10		FACU
7. Polystichum acrostichoides	5		FACU
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	25	x 3 =	75
FACU species	135	x 4 =	540
UPL species	10	x 5 =	50
Column Totals:	190 (A)		705 (B)

Prevalence Index = B/A = 3.71

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A073

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/4	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compacted

Depth (inches): 8

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Excavation below 8 inches prevented by compacted layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A074

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.71912892 Long: -79.45708555 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PSS W-A035. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____	
Water Table Present?	Yes ✔	No ____	Depth (inches): 10	
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 10	**Wetland Hydrology Present? Yes ✔ No ____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A074

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Alnus serrulata	25	✔	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	25	✔	FAC
2. Juncus effusus	20	✔	FACW
3. Scirpus atrovirens	10	✔	OBL
4. Carex lurida	10	✔	OBL
5. Dichanthelium clandestinum	10	✔	FAC
6. Lonicera japonica	10	✔	FACU
7. Solidago gigantea	5		FACW
8. Ludwigia alternifolia	5		FACW
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	30	x 2 =	60
FAC species	45	x 3 =	135
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	130 (A)		280 (B)

Prevalence Index = B/A = 2.15

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A074

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/3	95	10YR 4/6	5	C	M	Silty Clay Loam	Gravel in soil column
4 - 20	10YR 5/2	90	10YR 4/6	10	C	M	Silty Clay Loam	Gravel in soil column
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A075

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.71921723 Long: -79.45706044 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PSS W-A035. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A075

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	40	✔	FAC
2. Liriodendron tulipifera	20	✔	FACU
3. Carya glabra	10		FACU
4. Oxydendrum arboreum	10		UPL
5.			
6.			
7.			
	80	= Total Cover	
50% of total cover: 40	20% of total cover: 16		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	10	✔	FAC
2. Oxydendrum arboreum	10	✔	UPL
3. Carya glabra	10	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	30	= Total Cover	
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 5 ft r)			
1. Amphicarpaea bracteata	25	✔	FAC
2. Microstegium vimineum	20	✔	FAC
3. Parthenocissus quinquefolia	10		FACU
4. Dichanthelium clandestinum	10		FAC
5. Viola striata	10		FACW
6. Smilax rotundifolia	5		FAC
7.			
8.			
9.			
10.			
11.			
	80	= Total Cover	
50% of total cover: 40	20% of total cover: 16		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57.14 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	110	x 3 =	330
FACU species	50	x 4 =	200
UPL species	20	x 5 =	100
Column Totals:	190 (A)		650 (B)

Prevalence Index = B/A = 3.42

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A075

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	7.5YR 4/3	100					Silt Loam	
6 - 20	7.5YR 5/6	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A076

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.70779312 Long: -79.46685866 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PSS W-A036. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 11
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B10, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A076

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Oxydendrum arboreum	25	✔	UPL
2. Alnus serrulata	15	✔	OBL
3. Gaylussacia baccata	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Herb Stratum (Plot size: 5 ft r)			
1. Scirpus atrovirens	40	✔	OBL
2. Microstegium vimineum	30	✔	FAC
3. Glyceria striata	15		OBL
4. Smilax rotundifolia	5		FAC
5. Parthenocissus quinquefolia	5		FACU
6. Juncus effusus	5		FACW
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	15	✔	FAC
2.			
3.			
4.			
5.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	5	x 2 =	10
FAC species	50	x 3 =	150
FACU species	10	x 4 =	40
UPL species	25	x 5 =	125
Column Totals:	160 (A)		395 (B)

Prevalence Index = B/A = 2.46

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A076

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	5Y 4/1	100					Silt Loam	Gravel in soil column
10 - 20	5Y 5/1	95	5Y 6/1	5	D	M	Silty Clay Loam	Gravel in soil column
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A077

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.70774002 Long: -79.46688384 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks:

Upland sample plot adjacent to PSS W-A036. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A077

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	80	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Pinus virginiana	15	✔	UPL
2. Gaylussacia baccata	5	✔	FACU
3. Quercus alba	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	20	✔	FAC
2. Lonicera japonica	10	✔	FACU
3. Vitis rotundifolia	10	✔	FAC
4. Euonymus americanus	5		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	15	✔	FAC
2. Vitis rotundifolia	10	✔	FAC
3.			
4.			
5.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 62.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	140	x 3 =	420
FACU species	20	x 4 =	80
UPL species	15	x 5 =	75
Column Totals:	175 (A)		575 (B)

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A077

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 4/1	100					Silt Loam	
16 - 20	10YR 5/2	95	10YR 5/6	5	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A078

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.70758739 Long: -79.46716706 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔	No ___	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✔	Depth (inches): ___
Water Table Present?	Yes ___	No ✔	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 16

Wetland Hydrology Present? Yes ___ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present. Saturation present at a depth of 16 inches, however, neither water table nor a restrictive layer were observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A078

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dennstaedtia punctilobula	10	✔	FACU
2. Euonymus americanus	5	✔	FAC
3. Quercus alba	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	20 (A)		75 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A078

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10YR 4/1	100					Silt Loam	
10 - 20	10YR 5/1	95	10YR 5/8	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A079

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.70393965 Long: -79.470241 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A037. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B2, B3, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A079

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Impatiens capensis	10	✔	FACW
2. Glyceria striata	10	✔	OBL
3. Carex lurida	5		OBL
4. Persicaria longiseta	5		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	10	x 2 =	20
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	30 (A)		50 (B)

Prevalence Index = B/A = 1.66

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test, and prevalence index are passed.

SOIL Sampling Point: SP-A079

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/2	95	10YR 5/6	5	C	M	Sandy Clay Loam	Gravel in soil column
8 - 20	N 3/	95	10Y 6/1	5	D	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ✔ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicators F2 and F3 are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A080

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.7039494 Long: -79.47028738 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A037. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator B10 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A080

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	30	✔	FACU
2. Pinus taeda	15	✔	FAC
3. Acer rubrum	10		FAC
4. Fagus grandifolia	10		FACU
5. Betula nigra	10		FACW
6.			
7.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	60	✔	FAC
2. Liquidambar styraciflua	5		FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Herb Stratum (Plot size: 5 ft r)			
1. Dennstaedtia punctilobula	15	✔	FACU
2. Verbesina occidentalis	10	✔	FACU
3. Microstegium vimineum	10	✔	FAC
4. Liquidambar styraciflua	5		FAC
5. Viola striata	5		FACW
6. Lycopus virginicus	5		OBL
7.			
8.			
9.			
10.			
11.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	15	x 2 =	30
FAC species	105	x 3 =	315
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	190 (A)		610 (B)

Prevalence Index = B/A = 3.21

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A080

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 5/6	100					Silty Clay Loam	
8 - 16	7.5YR 5/3	95	7.5YR 5/3	5	C	M	Silty Clay Loam	
16 - 20	10YR 5/2	90	10YR 5/6	10	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A081

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.70420011 Long: -79.47015634 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PSS W-A038. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 16
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A081

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	15	✔	FAC
2. Fraxinus pennsylvanica	10	✔	FACW
3.			
4.			
5.			
6.			
7.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	30	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 5 ft r)			
1. Impatiens capensis	50	✔	FACW
2. Conium maculatum	15	✔	FACW
3. Dennstaedtia punctilobula	10		FACU
4. Liquidambar styraciflua	10		FAC
5. Microstegium vimineum	10		FAC
6. Carex oxylepis	5		FACW
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	65	x 3 =	195
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	155 (A)		395 (B)

Prevalence Index = B/A = 2.54

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A081

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/1	95	10YR 4/6	5	C	M	Silty Clay Loam	
8 - 20	10YR 4/1	95	10YR 6/1	5	D	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A082

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.7041345 Long: -79.47008194 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PSS W-A038. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A082

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	35	✔	FAC
2. Pinus taeda	30	✔	FAC
3. Fagus grandifolia	15		FACU
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liriodendron tulipifera	20	✔	FACU
2. Carpinus caroliniana	15	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Herb Stratum (Plot size: 5 ft r)			
1. Dennstaedtia punctilobula	10	✔	FACU
2. Diphasiastrum complanatum	5	✔	UPL
3. Carex swanii	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.85 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	50	x 4 =	200
UPL species	5	x 5 =	25
Column Totals:	135 (A)		465 (B)

Prevalence Index = B/A = 3.44

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A082

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 5/6	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compacted Clay

Depth (inches): 8

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Excavation beyond 8 inches prevented by compacted clay.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A083

Investigator(s): WJ, MC Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.701480 Long: -79.473387 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A039. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 8

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Saturation present at a depth of 8 inches, however, no water table or restrictive layer were observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A083

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Nyssa sylvatica	15	✔	FAC
2. Acer rubrum	10	✔	FAC
3. Diospyros virginiana	10	✔	FAC
4.			
5.			
6.			
7.			
	35	= Total Cover	
50% of total cover: 17.50	20% of total cover: 7.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Alnus serrulata	15	✔	OBL
2. Diospyros virginiana	10	✔	FAC
3. Fraxinus pennsylvanica	5		FACW
4.			
5.			
6.			
7.			
8.			
9.			
	30	= Total Cover	
50% of total cover: 15.00	20% of total cover: 6.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Amphicarpaea bracteata	25	✔	FAC
3. Conium maculatum	10		FACW
4. Symphyotrichum puniceum	5		OBL
5. Juncus effusus	5		FACW
6. Dennstaedtia punctilobula	5		FACU
7. Boehmeria cylindrica	5		FACW
8. Carex lurida	5		OBL
9.			
10.			
11.			
	100	= Total Cover	
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	25	x 2 =	50
FAC species	110	x 3 =	330
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	165 (A)		425 (B)

Prevalence Index = B/A = 2.57

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A083

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	2.5YR 5/6	100					Sandy Clay Loam	
2 - 12	10YR 4/1	90	2.5YR 5/6	10	C	M	Sandy Clay Loam	
12 - 20	10YR 5/2	85	7.5YR 5/6	15	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A084

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR or MLRA): P 136 Lat: 36.70145722 Long: -79.47345909 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A039. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A084

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carya tomentosa	35	✔	UPL
2. Liriodendron tulipifera	15	✔	FACU
3. Oxydendrum arboreum	15	✔	UPL
4.			
5.			
6.			
7.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carya tomentosa	25	✔	UPL
2. Nyssa sylvatica	15	✔	FAC
3. Viburnum prunifolium	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Herb Stratum (Plot size: 5 ft r)			
1. Dennstaedtia punctilobula	75	✔	FACU
2. Smilax rotundifolia	15		FAC
3. Parthenocissus quinquefolia	5		FACU
4. Arisaema triphyllum	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	10	✔	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.57 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	40	x 3 =	120
FACU species	100	x 4 =	400
UPL species	75	x 5 =	375
Column Totals:	220 (A)		905 (B)

Prevalence Index = B/A = 4.11

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A084

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/6	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A085

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.70145722 Long: -79.47345909 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A040. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way. No soils sampled due to sample plot location in gas right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A085

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Symphyotrichum puniceum	20	✔	OBL
2. Solidago gigantea	15	✔	FACW
3. Dichanthelium clandestinum	15	✔	FAC
4. Carex crinita	10	✔	OBL
5. Pueraria montana	10	✔	UPL
6. Apios americana	10	✔	FACW
7. Sagittaria latifolia	5		OBL
8. Holcus lanatus	5		FAC
9. Juncus effusus	5		FACW
10. Carex lurida	5		OBL
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	30	x 2 =	60
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A085

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
-								
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

No soils were sampled due to sample plot location in natural gas right-of-way. Due to the presence of wetland hydrology indicators and dominance of hydrophytic vegetation, hydric soils are assumed to be present and this area is assumed to be wetland.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A086a

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.701753 Long: -79.473407 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A040. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A086a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	50	✔	FAC
2. Liriodendron tulipifera	30	✔	FACU
3.			
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40.00	20% of total cover: 16.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Diospyros virginiana	5	✔	FAC
2. Fraxinus pennsylvanica	5	✔	FACW
3. Oxydendrum arboreum	5	✔	UPL
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Amphicarpaea bracteata	40	✔	FAC
2. Microstegium vimineum	20	✔	FAC
3. Asplenium platyneuron	5		FACU
4. Juncus effusus	5		FACW
5. Solidago altissima	5		FACU
6.			
7.			
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.50	20% of total cover: 15.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71.42 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	115	x 3 =	345
FACU species	40	x 4 =	160
UPL species	5	x 5 =	25
Column Totals:	170 (A)		550 (B)

Prevalence Index = B/A = 3.23

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A086a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	5YR 4/6	100					Silt Loam	
8 - 20	5YR 5/6	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A087

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.688837 Long: -79.48611671 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil ✔, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A041. Soils naturally problematic due to position in active floodplain, but are considered hydric due to landscape position, and presence of hydrophytic vegetation and hydrology. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B3, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A087

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula nigra	20	✔	FACW
2. Carpinus caroliniana	15	✔	FAC
3.			
4.			
5.			
6.			
7.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	50	✔	FAC
2. Dennstaedtia punctilobula	10	✔	FACU
3. Microstegium vimineum	10	✔	FAC
4. Boehmeria cylindrica	5		FACW
5. Campsis radicans	5		FAC
6. Carex lurida	5		OBL
7. Elephantopus carolinianus	5		FACU
8. Parthenocissus quinquefolia	5		FACU
9. Polygonatum biflorum	5		FACU
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	25	x 2 =	50
FAC species	90	x 3 =	270
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	145 (A)		425 (B)

Prevalence Index = B/A = 2.93

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A087

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 15	10YR 5/6	100					Sandy Loam	
15 - 20	10YR 5/1	90	7.5YR 4/6	10	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Soils problematic due to location within active floodplain with a sand bar, but considered hydric due to landscape position, and presence of hydrophytic vegetation and hydrology.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A088

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.68887506 Long: -79.4860605 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PFO W-A041. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A088

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	35	✔	FAC
2. Betula nigra	25	✔	FACW
3. Fagus grandifolia	25	✔	FACU
4. Liriodendron tulipifera	10		FACU
5. Cornus florida	5		FACU
6.			
7.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	25	✔	FAC
2. Liquidambar styraciflua	5		FAC
3. Oxydendrum arboreum	5		UPL
4.			
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Herb Stratum (Plot size: 5 ft r)			
1. Euonymus americanus	15	✔	FAC
2. Carex echinata	15	✔	OBL
3. Polygonatum biflorum	10	✔	FACU
4. Carpinus caroliniana	10	✔	FAC
5. Viola striata	10	✔	FACW
6. Smilax rotundifolia	5		FAC
7. Carya tomentosa	5		UPL
8. Elephantopus carolinianus	5		FACU
9. Parthenocissus quinquefolia	5		FACU
10. Quercus velutina	5		UPL
11.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 77.77 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	35	x 2 =	70
FAC species	95	x 3 =	285
FACU species	60	x 4 =	240
UPL species	15	x 5 =	75
Column Totals:	220 (A)		685 (B)

Prevalence Index = B/A = 3.11

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A088

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 4/6	100					Silt Loam	
16 - 20	10YR 4/6	70	10YR 6/1	30	D	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A089

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.688874 Long: -79.486261 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ✔, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A042 and representative of PEM W-A043. Soils naturally problematic due to position in active floodplain, but are considered hydric due to presence of hydrophytic vegetation and hydrology. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 4

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B2, B3, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A089

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Amphicarpaea bracteata	40	✔	FAC
2. Dichanthelium clandestinum	30	✔	FAC
3. Rudbeckia laciniata	15		FACW
4. Boehmeria cylindrica	10		FACW
5. Eutrochium maculatum	5		FACW
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	70	x 3 =	210
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		270 (B)

Prevalence Index = B/A = 2.70

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A089

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/4	100					Sandy Loam	Coarse sandy loam
4 - 8	10YR 5/1	90	2.5YR 5/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Colluvium

Depth (inches): 8

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present. Soils naturally problematic due to position in active floodplain, but are considered hydric due to presence of hydrophytic vegetation and hydrology. Excavation beyond 8 inches was prevented by colluvium layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A090

Investigator(s): WJ, MC Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.68881977 Long: -79.4862885 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks:

Upland sample plot adjacent to PEM W-A042 & PEM W-A043. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3 and D2 are present. Drift deposits likely from atypical flood event.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A090

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	25	✔	FAC
2. Fagus grandifolia	15	✔	FACU
3. Liquidambar styraciflua	10	✔	FAC
4.			
5.			
6.			
7.			
	50	= Total Cover	
50% of total cover: 25	20% of total cover: 10		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	15	✔	FAC
2. Liquidambar styraciflua	10	✔	FAC
3. Fagus grandifolia	10	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	35	= Total Cover	
50% of total cover: 17.5	20% of total cover: 7		
Herb Stratum (Plot size: 5 ft r)			
1. Anthoxanthum odoratum	20	✔	FACU
2. Amphicarpaea bracteata	10	✔	FAC
3. Dichanthelium dichotomum	10	✔	FAC
4. Solidago arguta	10	✔	UPL
5. Albizia julibrissin	10	✔	UPL
6. Carpinus caroliniana	5		FAC
7. Eutrochium maculatum	5		FACW
8. Elephantopus carolinianus	5		FACU
9. Impatiens capensis	5		FACW
10. Juncus effusus	5		FACW
11.			
	85	= Total Cover	
50% of total cover: 42.5	20% of total cover: 17		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 54.54 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	85	x 3 =	255
FACU species	50	x 4 =	200
UPL species	20	x 5 =	100
Column Totals:	170 (A)		585 (B)

Prevalence Index = B/A = 3.44

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A090

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 4/2	100					Sandy Loam	
3 - 6	2.5YR 5/6	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Coarse fragments

Depth (inches): 6

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Excavation beyond 6 inches prevented by gravel. Soils assumed non-hydric below restrictive layer due to infiltration through gravel layer and due to stream channel erosion disconnecting this area from the active floodplain.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A091

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.68034741 Long: -79.4901509 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A045, representative of PFO W-A044. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 16

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Saturation present at a depth of 16 inches, however, no water table or restrictive layer was observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A091

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	40	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40 = Total Cover		
50% of total cover: 20	20% of total cover: 8		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Lindera benzoin	20	✔	FAC
2. Liquidambar styraciflua	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	55	✔	FAC
2. Circaea canadensis	15		FACU
3. Arisaema triphyllum	5		FACW
4. Carex lurida	5		OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	5	x 2 =	10
FAC species	120	x 3 =	360
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	145 (A)		435 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A091

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/2	90	7.5YR 5/6	10	C	M	Silty Clay Loam	
8 - 20	5Y 5/1	95	7.5YR 5/8	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A092

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.68042269 Long: -79.49011039 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A044 & W-A045. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A092

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	20	✔	FAC
2. Fagus grandifolia	20	✔	FACU
3. Liriodendron tulipifera	15	✔	FACU
4.			
5.			
6.			
7.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Lindera benzoin	60	✔	FAC
2. Carpinus caroliniana	10		FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	50	✔	FAC
2. Amphicarpaea bracteata	30	✔	FAC
3. Arisaema triphyllum	5		FACW
4. Fagus grandifolia	5		FACU
5. Parthenocissus quinquefolia	5		FACU
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	170	x 3 =	510
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	220 (A)		700 (B)

Prevalence Index = B/A = 3.18

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A092

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/3	100					Silt Loam	
4 - 16	10YR 4/4	100					Silty Clay Loam	
16 - 20	10YR 5/4	95	10YR 5/8	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A093

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.671950 Long: -79.498934 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A046. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes ✔	No _____	Depth (inches): 3
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B2, B3, B10, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A093

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Murdannia keisak	25	✔	OBL
2. Persicaria longiseta	20	✔	FAC
3. Schedonorus arundinaceus	15	✔	FACU
4. Symphyotrichum puniceum	10		OBL
5. Glyceria striata	10		OBL
6. Ambrosia artemisiifolia	10		FACU
7. Impatiens capensis	5		FACW
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.50	20% of total cover: 19.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	5	x 2 =	10
FAC species	20	x 3 =	60
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	95 (A)		215 (B)

Prevalence Index = B/A = 2.26

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A093

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/1	95	7.5YR 4/6	5	C	M	Sandy Loam	Coarse sandy loam
4 - 8	10YR 5/1	95	7.5YR 4/6	5	C	M	Sandy Clay Loam	Coarse sandy clay loam
8 - 12	10YR 6/4	80	2.5YR 4/6	5	C	M	Clay Loam	
8 - 12	10YR 5/1	15					Clay Loam	Gravel & organic debris in soil column
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Coarse fragments

Depth (inches): 12+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present. Excavation below 12 inches prevented by gravel deposits.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A094

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.67198146 Long: -79.49893736 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A046. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A094

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Celtis occidentalis	25	✔	FACU
2. Platanus occidentalis	5		FACW
3.			
4.			
5.			
6.			
7.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	35	✔	FACU
2. Solidago altissima	30	✔	FACU
3. Microstegium vimineum	15		FAC
4. Phytolacca americana	10		FACU
5. Lonicera japonica	10		FACU
6. Verbena urticifolia	10		FAC
7.			
8.			
9.			
10.			
11.			
	110 = Total Cover		
50% of total cover: 55	20% of total cover: 22		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	25	x 3 =	75
FACU species	110	x 4 =	440
UPL species	0	x 5 =	0
Column Totals:	140 (A)		525 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A094

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/6	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A095

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.67198146 Long: -79.49893736 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A047. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A3, D2 and D5 are present. Restrictive layer present capable of perching water within 12 inches of the surface.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A095

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Carex lurida	30	✔	OBL
2. Glyceria striata	30	✔	OBL
3. Symphyotrichum puniceum	10		OBL
4. Solidago gigantea	10		FACW
5. Dichanthelium clandestinum	10		FAC
6. Scirpus polyphyllus	5		OBL
7. Lonicera japonica	5		FACU
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	75	x 1 =	75
FACW species	10	x 2 =	20
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		145 (B)

Prevalence Index = B/A = 1.45

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test, and prevalence index are passed.

SOIL Sampling Point: SP-A095

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/1	90	10YR 5/6	10	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Coarse fragments

Depth (inches): 8

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present. Excavation below 8 inches prevented by gravel deposits.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A096

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.67198146 Long: -79.49893736 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks:

Upland sample plot adjacent to PEM W-A047. Vegetation, soil, and hydrology disturbed by maintenance of access road. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Hydrology significantly disturbed by maintenance of access road.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A096

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Trifolium pratense	50	✔	FACU
2. Schedonorus arundinaceus	20	✔	FACU
3. Solidago gigantea	10		FACW
4. Erigeron annuus	5		FACU
5. Eupatorium capillifolium	5		FACU
6. Rubus argutus	5		FACU
7. Solidago altissima	5		FACU
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed. Vegetation significantly disturbed by maintenance of access road.

SOIL Sampling Point: SP-A096

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 1	10YR 5/6	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 1

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Excavation below 1 inch prevented by compaction. Soils significantly disturbed by maintenance of access road. Due to lack of wetland hydrology indicators and dominance of hydrophytic vegetation, soils below compacted layer assumed to be non-hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A096a

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.67182399 Long: -79.49886605 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks:

Upland sample plot adjacent to PEM W-A047. Vegetation, soil, and hydrology disturbed by maintenance of access road. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A096a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	20	✔	FACU
2. Eupatorium altissimum	15	✔	UPL
3. Solidago altissima	15	✔	FACU
4. Boehmeria cylindrica	10	✔	FACW
5. Microstegium vimineum	10	✔	FAC
6. Solidago gigantea	10	✔	FACW
7. Trifolium pratense	10	✔	FACU
8. Eupatorium capillifolium	5		FACU
9. Rubus argutus	5		FACU
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.85 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	55	x 4 =	220
UPL species	15	x 5 =	75
Column Totals:	100 (A)		365 (B)

Prevalence Index = B/A = 3.65

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed. Vegetation significantly disturbed by maintenance of access road.

SOIL Sampling Point: SP-A096a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 5/6	100					Sandy Loam	
3 - 8	10YR 4/6	100					Silty Clay Loam	
8 - 20	10YR 5/6	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Soils significantly disturbed by maintenance of access road.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A097

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.6675682 Long: -79.5065787 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B10 and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A097

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	10	✔	FAC
2. Liriodendron tulipifera	5	✔	FACU
3. Prunus avium	5	✔	UPL
4.			
5.			
6.			
7.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rubus allegheniensis	35	✔	FACU
2. Platanus occidentalis	20	✔	FACW
3. Rhus copallinum	10		FACU
4. Salix nigra	5		OBL
5. Sambucus nigra	5		FAC
6. Liquidambar styraciflua	5		FAC
7. Fraxinus pennsylvanica	5		FACW
8. Liriodendron tulipifera	5		FACU
9.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Herb Stratum (Plot size: 5 ft r)			
1. Rubus allegheniensis	25	✔	FACU
2. Juncus effusus	15	✔	FACW
3. Parthenocissus quinquefolia	10	✔	FACU
4. Solidago altissima	10	✔	FACU
5. Dichanthelium dichotomum	10	✔	FAC
6. Dichanthelium clandestinum	5		FAC
7. Lespedeza cuneata	5		FACU
8. Eutrochium maculatum	5		FACW
9. Juncus tenuis	5		FAC
10. Carex swanii	5		FACU
11. Lonicera japonica	5		FACU
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Vitis aestivalis	5	✔	FACU
2. Lonicera japonica	5	✔	FACU
3. Clematis terniflora	5	✔	FACU
4.			
5.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 30.76 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	45	x 2 =	90
FAC species	40	x 3 =	120
FACU species	135	x 4 =	540
UPL species	5	x 5 =	25
Column Totals:	230 (A)		780 (B)

Prevalence Index = B/A = 3.39

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A097

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/4	100					Silt Loam	
4 - 6	10YR 6/2	95	10YR 5/6	5	C	M	Silt Loam	
6 - 9	10YR 6/3	95	10YR 6/6	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 9+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present. Excavation below 9 inches prevented by compaction.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A098

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.66816604 Long: -79.50652197 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A048. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B3, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A098

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Glyceria striata	20	✔	OBL
2. Impatiens capensis	10	✔	FACW
3. Persicaria arifolia	10	✔	OBL
4. Murdannia keisak	10	✔	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	50 (A)		60 (B)

Prevalence Index = B/A = 1.20

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A098

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 5/4	100					Sand	Organic sand
3 - 8	10YR 4/1	90	7.5YR 5/6	10	C	PL / M	Sandy Clay Loam	
8 - 20	5Y 4/1	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A099

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.668137 Long: -79.506507 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ✔, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A048. Soils naturally problematic due to position in active floodplain. Soils not considered hydric due to lack of hydrology and lack of dominant hydrophytic vegetation. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A099

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus palustris	15	✔	FACW
2. Liriodendron tulipifera	15	✔	FACU
3. Acer rubrum	10	✔	FAC
4.			
5.			
6.			
7.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Juniperus virginiana	25	✔	FACU
2. Liquidambar styraciflua	10	✔	FAC
3. Pinus taeda	5		FAC
4.			
5.			
6.			
7.			
8.			
9.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Herb Stratum (Plot size: 5 ft r)			
1. Antennaria plantaginifolia	15	✔	FAC
2. Lespedeza cuneata	5	✔	FACU
3. Rubus allegheniensis	5	✔	FACU
4. Carya tomentosa	5	✔	UPL
5. Lonicera japonica	5	✔	FACU
6. Elephantopus carolinianus	5	✔	FACU
7.			
8.			
9.			
10.			
11.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Lonicera japonica	5	✔	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 12 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	40	x 3 =	120
FACU species	65	x 4 =	260
UPL species	5	x 5 =	25
Column Totals:	125 (A)		435 (B)

Prevalence Index = B/A = 3.48

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A099

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/2	100					Silt Loam	
2 - 6	10YR 5/3	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 6+

Hydric Soil Present? **Yes** ____ **No** ✔

Remarks:

No indicators are met. Excavation below 6 inches prevented by compacted layer. Soils naturally problematic due to position in active floodplain. Soils assumed to be non-hydric due to lack of hydrology and lack of dominant hydrophytic vegetation.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A100

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.67365605 Long: -79.50133262 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A049a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B10, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A100

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	35	✔	FAC
2. Liriodendron tulipifera	15	✔	FACU
3. Salix nigra	10		OBL
4. Liquidambar styraciflua	10		FAC
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	20	✔	FAC
2. Alnus serrulata	20	✔	OBL
3. Ligustrum sinense	10		FACU
4. Lindera benzoin	5		FAC
5.			
6.			
7.			
8.			
9.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	65	✔	FAC
2. Glyceria striata	15		OBL
3. Solidago gigantea	5		FACW
4. Ligustrum sinense	5		FACU
5. Impatiens capensis	5		FACW
6. Agrimonia parviflora	5		FACW
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	15	x 2 =	30
FAC species	135	x 3 =	405
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	225 (A)		600 (B)

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A100

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/4	100					Silt Loam	
4 - 10	10YR 5/3	95	7.5YR 4/6	5	C	M	Silty Clay Loam	
10 - 20	10YR 5/2	90	7.5YR 4/6	10	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A101

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.67371781 Long: -79.50130223 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A049a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A101

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	25	✔	FAC
2. Liriodendron tulipifera	20	✔	FACU
3. Quercus velutina	10		UPL
4. Carpinus caroliniana	10		FAC
5. Diospyros virginiana	5		FAC
6. Prunus avium	5		UPL
7. Celtis occidentalis	5		FACU
	80	= Total Cover	
50% of total cover: 40		20% of total cover: 16	
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ligustrum sinense	10	✔	FACU
2. Liriodendron tulipifera	5	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15	= Total Cover	
50% of total cover: 7.5		20% of total cover: 3	
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	25	✔	FAC
2. Viola striata	15	✔	FACW
3. Ligustrum sinense	10	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50	= Total Cover	
50% of total cover: 25		20% of total cover: 10	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:		20% of total cover:	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.85 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	65	x 3 =	195
FACU species	50	x 4 =	200
UPL species	15	x 5 =	75
Column Totals:	145 (A)		500 (B)

Prevalence Index = B/A = 3.44

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-A101

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 4/4	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-12

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A102

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.67354567 Long: -79.50166859 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A049b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey. Vegetation, soil, and hydrology significantly disturbed by natural gas pipeline right-of-way. No soil sample was taken due to sample plot location in gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A102

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	30	✔	FAC
2. Persicaria sagittata	10	✔	OBL
3. Symphyotrichum puniceum	10	✔	OBL
4. Scirpus atrovirens	10	✔	OBL
5. Glyceria striata	10	✔	OBL
6. Boehmeria cylindrica	10	✔	FACW
7. Poa pratensis	5		FACU
8. Eutrochium maculatum	5		FACW
9. Carex lurida	5		OBL
10. Impatiens capensis	5		FACW
11. Apios americana	5		FACW
	105 = Total Cover		
50% of total cover: 52.5	20% of total cover: 21		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	25	x 2 =	50
FAC species	30	x 3 =	90
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	105 (A)		205 (B)

Prevalence Index = B/A = 1.95

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A102

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
-								
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** _____

Remarks:

No soil sample was taken due to sample plot location in gas pipeline right-of-way, however, due to the presence of wetland hydrology indicators and dominance of hydrophytic vegetation, soils are assumed to be hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A103

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.65192234 Long: -79.52222215 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A051. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A103

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Sambucus nigra	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		

50% of total cover: 7.5 20% of total cover: 3

Herb Stratum (Plot size: 5 ft r)			
1. Symphyotrichum puniceum	50	✔	OBL
2. Glechoma hederacea	30	✔	FACU
3. Carex lurida	5		OBL
4. Apios americana	5		FACW
5. Dichanthelium clandestinum	5		FAC
6. Amphicarpaea bracteata	5		FAC
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	5	x 2 =	10
FAC species	25	x 3 =	75
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	115 (A)		260 (B)

Prevalence Index = B/A = 2.26

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A103

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/2	95	7.5YR 4/6	5	C	PL / M	Silt Loam	
4 - 12	10YR 5/1	90	7.5YR 4/6	10	C	PL / M	Silty Clay Loam	
12 - 20	5Y 6/1	90	7.5YR 5/8	10	C	PL / M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A104

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.65196133 Long: -79.5222742 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A051. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A104

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Lespedeza bicolor	20	✔	UPL
2. Rosa multiflora	15	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	30	✔	FAC
2. Solidago altissima	15	✔	FACU
3. Glechoma hederacea	15	✔	FACU
4. Bromus hordeaceus	10		UPL
5. Solidago gigantea	10		FACW
6. Symphyotrichum puniceum	5		OBL
7. Juncus effusus	5		FACW
8. Rubus argutus	5		FACU
9. Anthoxanthum odoratum	5		FACU
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	15	x 2 =	30
FAC species	45	x 3 =	135
FACU species	55	x 4 =	220
UPL species	30	x 5 =	150
Column Totals:	150 (A)		540 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A104

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 5/4	100					Silt Loam	
16 - 20	10YR 5/4	65					Silt Loam	
16 - 20	10YR 6/1	30	7.5YR 5/6	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A105

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.64539103 Long: -79.52668679 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PSS W-A052a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B10, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A105

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Sambucus nigra	30	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 5 ft r)			
1. Solidago gigantea	50	✔	FACW
2. Microstegium vimineum	35	✔	FAC
3. Juncus effusus	5		FACW
4. Bromus hordeaceus	5		UPL
5. Glyceria striata	5		OBL
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	55	x 2 =	110
FAC species	75	x 3 =	225
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	140 (A)		365 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A105

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 15	2.5Y 6/2	95	10YR 6/6	5	C	M	Sandy Clay Loam	
15 - 20	2.5Y 7/1	95	10YR 6/6	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A106

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 8

Subregion (LRR or MLRA): P 136 Lat: 36.64536153 Long: -79.52668366 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A052c. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A106

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	20	✔	FAC
2. Acer rubrum	20	✔	FAC
3.			
4.			
5.			
6.			
7.			
	40 = Total Cover		
50% of total cover: 20	20% of total cover: 8		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	60	✔	FAC
2. Acer rubrum	10		FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	15	✔	FAC
2. Parthenocissus quinquefolia	10	✔	FACU
3. Toxicodendron radicans	10	✔	FAC
4. Dichanthelium clandestinum	5	✔	FAC
5. Agrimonia parviflora	5	✔	FACW
6. Solidago gigantea	5	✔	FACW
7. Campsis radicans	5	✔	FAC
8. Rubus allegheniensis	5	✔	FACU
9. Lonicera japonica	5	✔	FACU
10. Bidens aristosa	5	✔	FACW
11. Apios americana	5	✔	FACW
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	25	✔	FAC
2. Campsis radicans	5		FAC
3. Apios americana	5		FACW
4. Parthenocissus quinquefolia	5		FACU
5. Lonicera japonica	5		FACU
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 12 (A)

Total Number of Dominant Species Across All Strata: 15 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	175	x 3 =	525
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	230 (A)		695 (B)

Prevalence Index = B/A = 3.02

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A106

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 8	2.5Y 6/4	100					Silt Loam	
8 - 10	2.5Y 7/1	95	10YR 6/6	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 10+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

No indicators are present. excavation beyond 10 inches prevented by compaction. A depleted layer meeting the color requirements of Indicator F3 is present beginning at a depth of 8 inches, however, due to soil compaction, the depth of this layer could not be fully assessed. Due to the presence of wetland hydrology indicators and dominance of hydrophytic vegetation, the soils are assumed to satisfy wetland criteria below the compacted layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A107

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.645279 Long: -79.526614 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A052b. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B10, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A107

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	15	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Symphyotrichum puniceum	85	✔	OBL
2. Boehmeria cylindrica	5		FACW
3. Solidago gigantea	5		FACW
4. Impatiens capensis	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	85	x 1 =	85
FACW species	15	x 2 =	30
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	115 (A)		160 (B)

Prevalence Index = B/A = 1.39

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A107

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	2.5Y 5/2	85	10YR 5/8	15	C	M	Sandy Clay Loam	
16 - 20	2.5Y 5/2	70	10YR 5/8	5	C	M	Sandy Clay Loam	
16 - 20	2.5Y 7/1	20	10YR 6/6	5	C	M		
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A108

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.64403897 Long: -79.52739433 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A054. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A108

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Platanus occidentalis	5	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	30	✔	FACU
2. Juncus effusus	15	✔	FACW
3. Boehmeria cylindrica	10	✔	FACW
4. Solanum carolinense	5		FACU
5. Solidago altissima	5		FACU
6. Lonicera japonica	5		FACU
7. Carex lurida	5		OBL
8. Agrimonia parviflora	5		FACW
9. Campsis radicans	5		FAC
10. Rubus allegheniensis	5		FACU
11. Toxicodendron radicans	5		FAC
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	35	x 2 =	70
FAC species	10	x 3 =	30
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	100 (A)		305 (B)

Prevalence Index = B/A = 3.05

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A108

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/2	97	10YR 5/6	3	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 8+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present. Excavation beyond 8 inches prevented by compaction.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A109

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.64400052 Long: -79.52734202 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A054. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A109

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	50	✔	FAC
2. Diospyros virginiana	10		FAC
3. Platanus occidentalis	10		FACW
4. Betula nigra	5		FACW
5.			
6.			
7.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Prunus avium	10	✔	UPL
2. Quercus phellos	10	✔	FAC
3. Juniperus virginiana	10	✔	FACU
4. Alnus serrulata	5		OBL
5. Acer rubrum	5		FAC
6. Ligustrum sinense	5		FACU
7.			
8.			
9.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Herb Stratum (Plot size: 5 ft r)			
1. Toxicodendron radicans	10	✔	FAC
2. Rubus allegheniensis	10	✔	FACU
3. Lonicera japonica	5		FACU
4. Parthenocissus quinquefolia	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	15	x 2 =	30
FAC species	85	x 3 =	255
FACU species	35	x 4 =	140
UPL species	10	x 5 =	50
Column Totals:	150 (A)		480 (B)

Prevalence Index = B/A = 3.20

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A109

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	2.5Y 6/4	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 10+

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Excavation below 10 inches prevented by compaction. Due to the lack of wetland hydrology and dominance of hydrophytic vegetation, soils are assumed to be non-hydric below the compacted layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-14

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A121

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.63799249 Long: -79.53073483 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A061. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A121

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus occidentalis	20	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	75	✔	FAC
2. Lespedeza cuneata	10		FACU
3. Ludwigia palustris	5		OBL
4. Solanum carolinense	5		FACU
5. Rumex crispus	5		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	20	x 2 =	40
FAC species	80	x 3 =	240
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	120 (A)		345 (B)

Prevalence Index = B/A = 2.87

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A121

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	2.5Y 5/2	90	7.5YR 5/6	10	C	M	Silty Clay Loam	
2 - 5	2.5YR 5/2	60	2.5YR 5/6	10	C	M	Silty Clay Loam	
2 - 5	2.5Y 6/6	30					Clay Loam	
5 - 20	2.5Y 6/6	70					Clay Loam	
5 - 20	10YR 7/1	30					Clay Loam	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-14

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A122

Investigator(s): WJ, MC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.63798037 Long: -79.53081279 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A061. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A122

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus avium	10	✔	UPL
2. Fagus grandifolia	10	✔	FACU
3. Liriodendron tulipifera	10	✔	FACU
4. Quercus alba	10	✔	FACU
5.			
6.			
7.			
	40	= Total Cover	
50% of total cover: 20	20% of total cover: 8		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rubus allegheniensis	15	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15	= Total Cover	
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft r)			
1. Anthoxanthum odoratum	15	✔	FACU
2. Persicaria longiseta	10	✔	FAC
3. Lolium perenne	10	✔	FACU
4. Schedonorus arundinaceus	10	✔	FACU
5. Microstegium vimineum	10	✔	FAC
6. Juncus effusus	5		FACW
7. Solanum carolinense	5		FACU
8. Plantago lanceolata	5		UPL
9. Juncus tenuis	5		FAC
10.			
11.			
	75	= Total Cover	
50% of total cover: 37.5	20% of total cover: 15		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	25	x 3 =	75
FACU species	85	x 4 =	340
UPL species	15	x 5 =	75
Column Totals:	130 (A)		500 (B)

Prevalence Index = B/A = 3.84

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A122

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	2.5Y 6/3	95	10YR 5/6	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 8+

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Excavation below 8 inches prevented by compacted layer. Due to the lack of wetland hydrology indicators and dominance of hydrophytic vegetation, soils are assumed to be non-hydric below the compacted layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A123

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Road Cut Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.63694593 Long: -79.52904029 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A062. Soils, vegetation and hydrology disturbed by maintenance of access road. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3, D2 and D5 are present. Hydrology significantly disturbed by maintenance of access road.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A123

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	55	✔	FAC
2. Dichanthelium clandestinum	15		FAC
3. Impatiens capensis	10		FACW
4. Carex lurida	10		OBL
5. Persicaria longiseta	5		FAC
6. Glyceria striata	5		OBL
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	10	x 2 =	20
FAC species	75	x 3 =	225
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		260 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed. Vegetation significantly disturbed by maintenance of access road.

SOIL Sampling Point: SP-A123

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 1	10YR 6/2	60	10YR 6/6	5	C	M	Silty Clay Loam	
0 - 1	10YR 4/2	35					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 1

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

No indicators are met. Soils disturbed, with compacted fill material used for road. Excavation below 1 inch prevented by compaction. Soils considered hydric below compacted layer due to presence of wetland hydrology indicators and dominance of hydrophytic vegetation.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A124

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Berm Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.63690857 Long: -79.52906721 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PSS W-A059. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey, hydrology naturally problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A124

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	55	✔	FAC
2. Liriodendron tulipifera	15	✔	FACU
3.			
4.			
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	20	✔	FAC
2. Platanus occidentalis	15	✔	FACW
3. Fraxinus americana	5		FACU
4. Juniperus virginiana	5		FACU
5.			
6.			
7.			
8.			
9.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	5	✔	FAC
2. Parthenocissus quinquefolia	5	✔	FACU
3. Lonicera japonica	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Celastrus orbiculatus	5	✔	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	80	x 3 =	240
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	135 (A)		430 (B)

Prevalence Index = B/A = 3.18

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A124

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 6/4	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 8+

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present. Excavation below 8 inches prevented by compaction. Soils assumed to be non-hydric below compacted layer due to the lack of wetland hydrology indicators and dominance of hydrophytic vegetation.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-A125

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.6280212 Long: -79.548098 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A063. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A125

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Dichanthelium clandestinum	20	✔	FAC
3. Cinna arundinacea	20	✔	FACW
4. Symphyotrichum puniceum	5		OBL
5. Juncus tenuis	5		FAC
6. Juncus effusus	5		FACW
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.50	20% of total cover: 19.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	25	x 2 =	50
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		250 (B)

Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A125

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/2	85	7.5YR 5/6	15	C	M	Sandy Clay	
8 -								REFUSAL
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Coarse fragments

Depth (inches): 8+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Excavation below 8 inches prevented by coarse fragments in soil column.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-A126

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Sideslope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.6280085 Long: -79.5480126 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A063. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A126

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Boehmeria cylindrica	30	✔	FACW
2. Lolium perenne	30	✔	FACU
3. Sorghum halepense	10		FACU
4. Bromus catharticus	10		UPL
5. Rumex crispus	5		FAC
6. Solanum carolinense	5		FACU
7. Carex vulpinoidea	5		OBL
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.50	20% of total cover: 19.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	30	x 2 =	60
FAC species	5	x 3 =	15
FACU species	45	x 4 =	180
UPL species	10	x 5 =	50
Column Totals:	95 (A)		310 (B)

Prevalence Index = B/A = 3.26

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A126

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10YR 5/3	100					Sandy Loam	
10 -								refusal
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Coarse fragments

Depth (inches): 10

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Excavation below 10 inches prevented by coarse fragments in soil column. Due to the lack of hydrologic indicators and dominance of hydrophytic vegetation, soils below the restrictive layer are assumed to be non-hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A127

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Berm Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.6255966 Long: -79.5505798 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A064. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A127

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus phellos	55	✔	FAC
2. Liquidambar styraciflua	10		FAC
3. Acer rubrum	10		FAC
4.			
5.			
6.			
7.			
	75	= Total Cover	
50% of total cover: 37.50	20% of total cover: 15.00		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft r)			
1. Avena sativa	10	✔	UPL
2. Smilax rotundifolia	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15	= Total Cover	
50% of total cover: 7.50	20% of total cover: 3.00		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	90 (A)		290 (B)

Prevalence Index = B/A = 3.22

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A127

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 6/3	100					Sandy Loam	
4 - 11	10YR 6/3	60					Sandy Loam	Co-matrix
-	10YR 6/6	40					Sandy Loam	Co-matrix
11 - 20	10YR 7/3	95	10YR 5/6	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-A128

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.6256122 Long: -79.550512 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A064. The USACE Antecedent Precipitation Tool indicates drier than normal conditons were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators B9, D2, and D3 are met. Compacted clay layer present at a depth of 10 inches capable of perching water within 12 inches of the soil suface.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A128

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus phellos	60	✔	FAC
2. Liquidambar styraciflua	10		FAC
3. Nyssa sylvatica	5		FAC
4. Acer rubrum	5		FAC
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40.00	20% of total cover: 16.00		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		255 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-A128

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 1	10YR 5/2	100					Silt Loam	
1 - 10	10YR 7/1	90	10YR 5/8	10	C	M	Silty Clay	
10 -								refusal
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 10+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met. Excavation below 10 inches prevented by compacted clay.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-A129

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.6227916 Long: -79.5533946 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A065, representative of PEMs W-A066 and W-A067. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B6, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A129

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	20	✔	FACW
2. Bidens aristosa	15	✔	FACW
3. Glyceria striata	15	✔	OBL
4. Microstegium vimineum	10		FAC
5. Salix nigra	5		OBL
6. Parthenocissus quinquefolia	5		FACU
7. Eleocharis obtusa	5		OBL
8. Carex vulpinoidea	5		OBL
9. Smilax rotundifolia	5		FAC
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.50	20% of total cover: 17.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	35	x 2 =	70
FAC species	15	x 3 =	45
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	85 (A)		165 (B)

Prevalence Index = B/A = 1.94

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test, and prevalence index are passed.

SOIL Sampling Point: SP-A129

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 4/1	100					Sandy Clay Loam	
6 - 16	10YR 6/2	100					Sandy Clay Loam	
16 - 20	10YR 6/2	95	7.5YR 5/8	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-A130

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Side Slope Local relief (concave, convex, none): Convex Slope (%): 4

Subregion (LRR or MLRA): P 136 Lat: 36.6227559 Long: -79.553367 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A065. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A130

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	55	✔	FAC
2. Juniperus virginiana	15		FACU
3. Quercus phellos	10		FAC
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40.00	20% of total cover: 16.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	15	✔	FAC
2. Senecio hieraciifolius	10	✔	FACU
3. Taraxacum officinale	5		FACU
4. Microstegium vimineum	5		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35 = Total Cover		
50% of total cover: 17.50	20% of total cover: 7.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Hedera helix	5	✔	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	90	x 3 =	270
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	125 (A)		410 (B)

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A130

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 5/3	100					Sandy Loam	
6 - 20	10YR 6/3	95	10YR 5/8	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-A131

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.7680675 Long: -79.408276 Datum: NAD 83

Soil Map Unit Name: 1C - Nathalie sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A068. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3, D2, and D5 are met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A131

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2. Salix nigra	5	✔	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	35	✔	FAC
2. Microstegium vimineum	20	✔	FAC
3. Juncus effusus	5		FACW
4. Dichanthelium scoparium	5		FACW
5. Rubus allegheniensis	5		FACU
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	10	x 2 =	20
FAC species	65	x 3 =	195
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	85 (A)		240 (B)

Prevalence Index = B/A = 2.82

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A131

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	5YR 4/6	100					Sandy Clay Loam	
8 - 20	7.5YR 5/2	97	7.5YR 5/8	3	C	PL / M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-A132

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Side Slope Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.768012 Long: -79.4082578 Datum: NAD 83

Soil Map Unit Name: 1C - Nathalie sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PEM W-A068. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B3, B10, and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A132

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Liriodendron tulipifera	20	✔	FACU
3. Oxydendrum arboreum	15	✔	UPL
4. Nyssa sylvatica	10		FAC
5.			
6.			
7.			
	75	= Total Cover	
50% of total cover: 37.50	20% of total cover: 15.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2. Diospyros virginiana	5	✔	FAC
3. Vaccinium stamineum	5	✔	FACU
4. Quercus velutina	5	✔	UPL
5.			
6.			
7.			
8.			
9.			
	25	= Total Cover	
50% of total cover: 12.50	20% of total cover: 5.00		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	5	✔	FAC
2. Parthenocissus quinquefolia	5	✔	FACU
3. Microstegium vimineum	5	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15	= Total Cover	
50% of total cover: 7.50	20% of total cover: 3.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	65	x 3 =	195
FACU species	30	x 4 =	120
UPL species	20	x 5 =	100
Column Totals:	115 (A)		415 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A132

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 5/2	100					Silty Clay Loam	
8 - 14	7.5YR 5/2	97	7.5YR 5/8	3	C	M	Silty Clay Loam	
14 - 20	5YR 5/6	100					Silt Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-A133

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.7579883 Long: -79.4184223 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PFO W-A069, representative of PFO W-A070c. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 12

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present. Saturation present at a depth of 12 inches, however, no water table or restrictive layers were observed.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A133

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	25	✔	FAC
2. Acer rubrum	20	✔	FAC
3.			
4.			
5.			
6.			
7.			
	45 = Total Cover		
50% of total cover: 22.50	20% of total cover: 9.00		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ilex decidua	20	✔	FACW
2. Viburnum dentatum	15	✔	FAC
3. Ilex verticillata	5		FACW
4. Liquidambar styraciflua	5		FAC
5.			
6.			
7.			
8.			
9.			
	45 = Total Cover		
50% of total cover: 22.50	20% of total cover: 9.00		

Herb Stratum (Plot size: 5 ft r)			
1. Symplocarpus foetidus	60	✔	OBL
2. Smilax rotundifolia	5		FAC
3. Euonymus americanus	5		FAC
4. Carex oxylepis	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.50	20% of total cover: 15.00		

Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	20	✔	FAC
2.			
3.			
4.			
5.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	30	x 2 =	60
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	185 (A)		405 (B)

Prevalence Index = B/A = 2.18

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A133

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 2/1	100					Muck	
3 - 10	10YR 5/2	100					Sandy Clay	
10 - 20	10YR 6/2	95	7.5YR 5/6	5	C	PL / M	Sandy Clay	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicators A11 and F3 are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-A134

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Side Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.7580061 Long: -79.4184697 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A069. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A134

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	20	✔	FACU
2. Fagus grandifolia	20	✔	FACU
3. Acer rubrum	20	✔	FAC
4. Oxydendrum arboreum	5		UPL
5. Liquidambar styraciflua	5		FAC
6. Quercus alba	5		FACU
7. Diospyros virginiana	5		FAC
	80 = Total Cover		
50% of total cover: 40.00	20% of total cover: 16.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	10	✔	FAC
2. Liquidambar styraciflua	10	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	10	✔	FAC
2. Lycopodium digitatum	5	✔	UPL
3. Carex oxylepis	5	✔	FACW
4. Symplocarpus foetidus	5	✔	OBL
5. Osmunda spectabilis	5	✔	OBL
6.			
7.			
8.			
9.			
10.			
11.			
	30 = Total Cover		
50% of total cover: 15.00	20% of total cover: 6.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	10	✔	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5.00	20% of total cover: 2.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 72.72 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	5	x 2 =	10
FAC species	70	x 3 =	210
FACU species	45	x 4 =	180
UPL species	10	x 5 =	50
Column Totals:	140 (A)		460 (B)

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A134

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/2	90	7.5YR 5/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-A135

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Side Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.7578341 Long: -79.4188839 Datum: NAD 83

Soil Map Unit Name: 5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A070b. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey. Vegetation, soils, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A135

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Solanum carolinense	45	✔	FACU
2. Dichanthelium clandestinum	20	✔	FAC
3. Lonicera japonica	10		FACU
4. Juncus effusus	5		FACW
5. Elymus virginicus	5		FACW
6. Dactylis glomerata	5		FACU
7. Rubus allegheniensis	5		FACU
8. Amphicarpaea bracteata	5		FAC
9. Achillea millefolium	5		FACU
10. Bromus catharticus	5		UPL
11.			
	110 = Total Cover		
50% of total cover: 55.00	20% of total cover: 22.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	25	x 3 =	75
FACU species	70	x 4 =	280
UPL species	5	x 5 =	25
Column Totals:	110 (A)		400 (B)

Prevalence Index = B/A = 3.63

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed. Vegetation significantly disturbed by natural gas pipeline right-of-way.

SOIL Sampling Point: SP-A135

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 5/3	100					Sandy Loam	
3 - 10	10YR 5/3	95	7.5YR 5/6	5	C	M	Sandy Loam	
10 - 12	10YR 5/2	95	7.5YR 5/6	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 12+

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are met. Excavation beyond 12 inches was prevented by compacted clay. A layer with the color requirements (10YR 5/2) for Indicator F3 begins at 10 inches but the depth of this layer could not be determined due to compaction. However, due to the lack of wetland hydrology indicators and dominance of hydrophytic vegetation, even if Indicator F3 were met, the area would not meet wetland criteria Soils significantly disturbed by natural gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-A136

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.7577469 Long: -79.4189594 Datum: NAD 83

Soil Map Unit Name: 5B3 - Clifford sandy clay loam, 2 to 7 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔ No ___
Hydric Soil Present?	Yes ✔	No ___		
Wetland Hydrology Present?	Yes ✔	No ___		

Remarks:

Wetland sample plot in PEM W-A070a. Representative of conditions in PEMs W-A070a and W-A032. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey. Vegetation, soils, and hydrology significantly disturbed by natural gas pipeline right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3 and D2 are present. Hydrology significantly disturbed by natural gas pipeline right-of-way.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A136

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		

50% of total cover: 2.50 20% of total cover: 1.00

Herb Stratum (Plot size: 5 ft r)			
1. Elymus virginicus	15	✔	FACW
2. Solanum carolinense	15	✔	FACU
3. Juncus effusus	15	✔	FACW
4. Solidago arguta	10	✔	UPL
5. Lespedeza cuneata	5		FACU
6. Rubus allegheniensis	5		FACU
7. Boehmeria cylindrica	5		FACW
8. Ambrosia artemisiifolia	5		FACU
9. Vitis aestivalis	5		FACU
10. Bromus hordeaceus	5		UPL
11. Lonicera japonica	5		FACU
	90 = Total Cover		

50% of total cover: 45.00 20% of total cover: 18.00

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	5	x 3 =	15
FACU species	40	x 4 =	160
UPL species	15	x 5 =	75
Column Totals:	95 (A)		320 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A136

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/2	90	7.5YR 5/8	10	C	PL / M	Sandy Clay Loam	
8 - 20	5Y 5/1	90	7.5YR 5/8	10	C	PL / M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A137

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Stream Terrace Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.632489 Long: -79.543392 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PSS W-A071b. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 10
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 4

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A137

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	35	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		

50% of total cover: 17.50 20% of total cover: 7.00

Herb Stratum (Plot size: 5 ft r)			
1. Glyceria striata	15	✔	OBL
2. Microstegium vimineum	10	✔	FAC
3. Poa pratensis	10	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35 = Total Cover		

50% of total cover: 17.50 20% of total cover: 7.00

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	70 (A)		190 (B)

Prevalence Index = B/A = 2.71

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A137

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/2	100					Sandy Loam	
4 - 14	10YR 5/1	90	7.5YR 4/6	10	C	PL / M	Sandy Clay Loam	
14 - 20	5Y 5/1	95	5Y 6/1	5	D	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-18

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A138

Investigator(s): WJ, CJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Stream Terrace Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.632605 Long: -79.5434224 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot in PEM W-A071b. The USACE Antecedent Precipitation Tool indicates drier than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 7
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 4

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A138

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Symphyotrichum puniceum	50	✔	OBL
2. Microstegium vimineum	30	✔	FAC
3. Impatiens capensis	15		FACW
4. Dichanthelium clandestinum	5		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	15	x 2 =	30
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		185 (B)

Prevalence Index = B/A = 1.85

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-A138

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/2	100					Sandy Clay Loam	
2 - 8	10YR 5/1	95	7.5YR 5/8	5	C	M	Sandy Clay Loam	
8 - 16	5Y 6/1	95	10YR 5/6	5	C	M	Sandy Clay Loam	
16 - 20	5Y 5/1	95	7.5YR 5/8	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A141

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.81505472 Long: -79.3556069 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A079. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 14
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A3, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A141

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Echinochloa crus-galli	25	✔	FAC
2. Commelina communis	10	✔	FAC
3. Microstegium vimineum	10	✔	FAC
4. Ambrosia artemisiifolia	10	✔	FACU
5. Persicaria hydropiperoides	10	✔	OBL
6. Lysimachia nummularia	10	✔	FACW
7. Arthraxon hispidus	10	✔	FAC
8. Elymus virginicus	5		FACW
9. Chamaecrista nictitans	5		FACU
10. Phlox divaricata	5		FACU
11. Ludwigia alternifolia	5		FACW
	105 = Total Cover		
50% of total cover: 52.50	20% of total cover: 21.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	20	x 2 =	40
FAC species	55	x 3 =	165
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	105 (A)		295 (B)

Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A141

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 4/4	100					Sandy Loam	
6 - 18	10YR 5/1	90	10YR 4/6	10	C	M	Sandy Loam	
18 - 20	10YR 3/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A142

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.81506346 Long: -79.35557385 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to S-A012. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A142

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	10	✔	FAC
2. Liquidambar styraciflua	5	✔	FAC
3. Liriodendron tulipifera	5	✔	FACU
4.			
5.			
6.			
7.			
	20	= Total Cover	
50% of total cover: 10	20% of total cover: 4		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ligustrum sinense	5	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5	= Total Cover	
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Ambrosia artemisiifolia	65	✔	FACU
2. Eragrostis capillaris	15		
3. Chamaecrista nictitans	10		FACU
4. Kummerowia striata	10		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Campsis radicans	25	✔	FAC
2.			
3.			
4.			
5.			
	25	= Total Cover	
50% of total cover: 12.5	20% of total cover: 5		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	135 (A)		500 (B)

Prevalence Index = B/A = 3.70

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A142

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/4	100					Sandy Clay Loam	
8 - 20	10YR 5/2	95	10YR 5/6	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A143

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Undulating Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.80205719 Long: -79.36841711 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to W-A008. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3 and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A143

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Schedonorus arundinaceus	40	✔	FACU
2. Coleataenia anceps	20	✔	FAC
3. Diodia virginiana	10		FACW
4. Solanum carolinense	10		FACU
5. Trifolium repens	10		FACU
6. Juncus effusus	5		FACW
7. Lysimachia nummularia	5		FACW
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	20	x 3 =	60
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	100 (A)		340 (B)

Prevalence Index = B/A = 3.40

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A143

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/1	80	10YR 5/8	20	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compacted Clay

Depth (inches): 12+

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A144

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.78333969 Long: -79.38883706 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A075. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ✔ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 14
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 4

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A3, B10, C8 and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A144

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	5	✔	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		

50% of total cover: 2.5 20% of total cover: 1

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	5 (A)		15 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A144

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/1	100					Sandy Loam	
4 - 20	10YR 5/2	90	10YR 5/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A145

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.78337221 Long: -79.3888569 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A075. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A145

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	30	✔	FACU
2. Carpinus caroliniana	30	✔	FAC
3. Platanus occidentalis	20	✔	FACW
4. Liquidambar styraciflua	20	✔	FAC
5.			
6.			
7.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	20	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	20	✔	FAC
2.			
3.			
4.			
5.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	100	x 3 =	300
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	150 (A)		460 (B)

Prevalence Index = B/A = 3.06

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A145

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 3/4	100					Loam	
4 - 16	5YR 5/4	70	5YR 4/6	30	C	M	Loam	
16 - 20	10YR 4/2	90	5YR 4/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A146

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.67356253 Long: -79.50182932 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot west of W-A049b. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A146

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Amphicarpaea bracteata	30	✔	FAC
2. Solidago altissima	15	✔	FACU
3. Vernonia noveboracensis	10	✔	FACW
4. Poa pratensis	10	✔	FACU
5. Desmodium canescens	10	✔	UPL
6. Agrimonia parviflora	5		FACW
7. Juncus effusus	5		FACW
8. Lespedeza cuneata	5		FACU
9. Schedonorus arundinaceus	5		FACU
10. Symphyotrichum puniceum	5		OBL
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Apios americana	20	✔	FACW
2.			
3.			
4.			
5.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	40	x 2 =	80
FAC species	30	x 3 =	90
FACU species	35	x 4 =	140
UPL species	10	x 5 =	50
Column Totals:	120 (A)		365 (B)

Prevalence Index = B/A = 3.04

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A146

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/4	100					Silt Loam	
8 - 12	7.5YR 5/3	95	7.5YR 6/1	5	D	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Compaction

Depth (inches): 12

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A147

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.66813024 Long: -79.50634358 Datum: NAD 83

Soil Map Unit Name: 9C - Lackstown fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot east of PFO W-A048. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator B2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A147

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Sambucus nigra	60	✔	FAC
2. Ligustrum sinense	20	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Herb Stratum (Plot size: 5 ft r)			
1. Dennstaedtia punctilobula	55	✔	FACU
2. Microstegium vimineum	15		FAC
3. Lonicera japonica	10		FACU
4. Lycopus virginicus	5		OBL
5. Galium aparine	5		FACU
6. Symphyotrichum puniceum	5		OBL
7. Persicaria pensylvanica	5		FACW
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	5	x 2 =	10
FAC species	75	x 3 =	225
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	180 (A)		605 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A147

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/4	100					Sandy Loam	
8 - 12	7.5YR 4/4	100					Sandy Clay Loam	
12 - 20	7.5YR 4/6	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A149

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.66033694 Long: -79.51305611 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A149

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Celtis occidentalis	30	✔	FACU
2. Pinus taeda	25	✔	FAC
3. Prunus avium	15	✔	UPL
4.			
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Prunus avium	15	✔	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	30	x 4 =	120
UPL species	30	x 5 =	150
Column Totals:	85 (A)		345 (B)

Prevalence Index = B/A = 4.05

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A149

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/2	85	7.5YR 5/6	15	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A150

Investigator(s): PKM Section, Township, Range:

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Concave Slope (%): 3-5

Subregion (LRR or MLRA): P 136 Lat: 36.65755707 Long: -79.51758714 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ✔, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A076. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey. Soils considered naturally problematic due to depositional layer in the first 8 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A150

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Salix nigra	20	✔	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Herb Stratum (Plot size: 5 ft r)			
1. Persicaria sagittata	40	✔	OBL
2. Leersia oryzoides	20	✔	OBL
3. Impatiens capensis	15		FACW
4. Persicaria hydropiperoides	10		OBL
5. Persicaria pensylvanica	10		FACW
6. Rubus argutus	5		FACU
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	25	x 2 =	50
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	120 (A)		160 (B)

Prevalence Index = B/A = 1.33

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test and dominance test are passed.

SOIL Sampling Point: SP-A150

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/6	100					Sand	Layer likely deposited.
8 - 20	10YR 5/2	80	10YR 3/6	20	C	M	Sand	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ✔ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator S5 is present. Though a matrix with chroma value 2 or lower does not start within 6 inches of the soil surface, we propose that this was likely due to deposition considering the sample plot's location in a bench and the disturbance history of agriculture, silviculture, and other activity in the region.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A151

Investigator(s): PKM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3-5

Subregion (LRR or MLRA): P 136 Lat: 36.65755707 Long: -79.51758714 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification: R5UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A076. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A151

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Diospyros virginiana	10	✔	FAC
2. Betula nigra	10	✔	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Herb Stratum (Plot size: 5 ft r)			
1. Verbesina alternifolia	20	✔	FAC
2. Andropogon virginicus	20	✔	FACU
3. Lespedeza cuneata	20	✔	FACU
4. Microstegium vimineum	10		FAC
5. Dichanthelium clandestinum	10		FAC
6. Eupatorium capillifolium	10		FACU
7. Rubus argutus	5		FACU
8. Dichanthelium scoparium	5		FACW
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	50	x 3 =	150
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	120 (A)		400 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A151

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/8	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A152

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2

Subregion (LRR or MLRA): P 136 Lat: 36.77175684 Long: -79.40077233 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔ No ___
Hydric Soil Present?	Yes ✔	No ___		
Wetland Hydrology Present?	Yes ✔	No ___		

Remarks:

Wetland sample plot within PFO W-A022. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B10, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A152

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	40	✔	FAC
2. Fraxinus pennsylvanica	40	✔	FACW
3. Platanus occidentalis	10		FACW
4. Acer negundo	10		FAC
5.			
6.			
7.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer negundo	20	✔	FAC
2. Fraxinus pennsylvanica	10	✔	FACW
3. Sambucus nigra	10	✔	FAC
4. Ligustrum sinense	10	✔	FACU
5. Carpinus caroliniana	10	✔	FAC
6.			
7.			
8.			
9.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		
Herb Stratum (Plot size: 5 ft r)			
1. Elymus virginicus	50	✔	FACW
2. Chasmanthium latifolium	10		FACU
3. Ligustrum sinense	10		FACU
4. Smilax rotundifolia	5		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	110	x 2 =	220
FAC species	95	x 3 =	285
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	235 (A)		625 (B)

Prevalence Index = B/A = 2.65

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A152

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/2	95	10YR 5/6	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A153

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 4

Subregion (LRR or MLRA): P 136 Lat: 36.78055491 Long: -79.39490214 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot in drainage feature near MM 4.7. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A153

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	25	✔	FACU
2. Acer rubrum	20	✔	FAC
3. Oxydendrum arboreum	10		UPL
4. Quercus coccinea	10		UPL
5. Nyssa sylvatica	5		FAC
6.			
7.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Oxydendrum arboreum	5	✔	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		
Herb Stratum (Plot size: 5 ft r)			
1. Nyssa sylvatica	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	25	x 4 =	100
UPL species	25	x 5 =	125
Column Totals:	80 (A)		315 (B)

Prevalence Index = B/A = 3.93

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-A153

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 4/6	100					Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Gravel/Rock

Depth (inches): 16

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A154

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.78135511 Long: -79.39440726 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot near MM 4.7. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A154

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liriodendron tulipifera	20	✔	FACU
2. Quercus alba	15	✔	FACU
3. Acer rubrum	15	✔	FAC
4. Carya glabra	10		FACU
5. Juniperus virginiana	5		FACU
6.			
7.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carya glabra	15	✔	FACU
2. Tilia americana	5	✔	FACU
3. Quercus alba	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		

Herb Stratum (Plot size: 5 ft r)			
1. Celastrus orbiculatus	30	✔	FACU
2. Quercus alba	5		FACU
3. Carya glabra	5		FACU
4. Rosa multiflora	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		

Woody Vine Stratum (Plot size: 30 ft r)			
1. Celastrus orbiculatus	20	✔	FACU
2. Vitis rotundifolia	5	✔	FAC
3.			
4.			
5.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 22.22 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	140	x 4 =	560
UPL species	0	x 5 =	0
Column Totals:	160 (A)		620 (B)

Prevalence Index = B/A = 3.87

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A154

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 4/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Refusal; rock

Depth (inches): 8

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A155

Investigator(s): PKM Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.77514026 Long: -79.39868905 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ✔, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A073b. Soils naturally problematic due to position in active floodplain, but are considered hydric due to landscape position, and presence of hydrophytic vegetation and hydrology. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B10, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A155

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Carpinus caroliniana	20	✔	FAC
3. Liquidambar styraciflua	20	✔	FAC
4. Betula nigra	20	✔	FACW
5. Liriodendron tulipifera	10		FACU
6.			
7.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	10	✔	FAC
2. Liquidambar styraciflua	10	✔	FAC
3. Lindera benzoin	10	✔	FAC
4. Fraxinus pennsylvanica	5		FACW
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		
50% of total cover: 17.50	20% of total cover: 7.00		
Herb Stratum (Plot size: 5 ft r)			
1. Cinna arundinacea	10	✔	FACW
2. Microstegium vimineum	10	✔	FAC
3. Chamaedaphne calyculata	10	✔	OBL
4. Boehmeria cylindrica	5		FACW
5. Woodwardia areolata	5		FACW
6. Onoclea sensibilis	5		FACW
7.			
8.			
9.			
10.			
11.			
	45 = Total Cover		
50% of total cover: 22.50	20% of total cover: 9.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	20	✔	FAC
2.			
3.			
4.			
5.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 11 (A)

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	50	x 2 =	100
FAC species	130	x 3 =	390
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	200 (A)		540 (B)

Prevalence Index = B/A = 2.70

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A155

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 4/4	80	5YR 4/6	20	C	M	Loam	
12 - 20	5YR 5/4	80	5YR 4/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ✔ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Soils naturally problematic due to position in active floodplain, but are considered hydric due to landscape position, and presence of hydrophytic vegetation and hydrology.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A156

Investigator(s): PKM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.77529901 Long: -79.39862578 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A073b. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A156

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	40	✔	FAC
2. Liriodendron tulipifera	30	✔	FACU
3.			
4.			
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		
Herb Stratum (Plot size: 5 ft r)			
1. Ageratina altissima	5	✔	FACU
2. Dichanthelium latifolium	5	✔	FACU
3. Dichanthelium aciculare	5	✔	FACU
4. Lonicera japonica	5	✔	FACU
5. Parthenocissus quinquefolia	5	✔	FACU
6. Microstegium vimineum	5	✔	FAC
7.			
8.			
9.			
10.			
11.			
	30 = Total Cover		
50% of total cover: 15.00	20% of total cover: 6.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	105 (A)		370 (B)

Prevalence Index = B/A = 3.52

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-A156

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10YR 5/3	80	7.5YR 4/4	20	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Refusal; compaction

Depth (inches): 10

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A157a

Investigator(s): PKM, WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.7753283 Long: -79.39875966 Datum: NAD 83

Soil Map Unit Name: 8A - Codorus-Comus complex, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔ No ___
Hydric Soil Present?	Yes ✔	No ___		
Wetland Hydrology Present?	Yes ✔	No ___		

Remarks:

Wetland sample plot within PEM W-A073a. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A157a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	55	✔	FAC
2. Solidago altissima	10		FACU
3. Vernonia gigantea	10		FAC
4. Cinna arundinacea	10		FACW
5. Polygonum sagittatum	5		
6. Elymus virginicus	5		FACW
7. Apios americana	5		FACW
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	65	x 3 =	195
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	95 (A)		275 (B)

Prevalence Index = B/A = 2.89

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-A157a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 4/4	100					Sandy Loam	
8 - 20	10YR 4/2	90	10YR 5/6	10	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-09-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A167

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.557212 Long: -79.616502 Datum: NAD 83

Soil Map Unit Name: 34B - Sheva fine sandy loam, 2 to 7 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A078. Rainfall event of 0.27 inches within the past 24 hours, normal hydrological conditions are not present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 0.25
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B10, D2, and D5 are present. Indicators A2 and A3 may be misapplied due to recent rainfall event.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A167

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Impatiens capensis	25	✔	FACW
2. Carex lurida	15	✔	OBL
3. Juncus effusus	10	✔	FACW
4. Epilobium coloratum	10	✔	FACW
5. Arthraxon hispidus	10	✔	FAC
6. Thelypteris palustris	5		FACW
7. Eupatorium perfoliatum	5		FACW
8. Boehmeria cylindrica	5		FACW
9. Lonicera japonica	5		FACU
10. Apios americana	5		FACW
11.			
	95 = Total Cover		
50% of total cover: 47.50	20% of total cover: 19.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	65	x 2 =	130
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	95 (A)		195 (B)

Prevalence Index = B/A = 2.05

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A167

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 6/1	80	10YR 5/6	20	C	M	Sandy Clay Loam	
6 - 20	N 7/	70	10YR 5/6	30	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ✔ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicators F2 and F3 are met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-09-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-A168

Investigator(s): WJ Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Undulating Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.557280 Long: -79.616370 Datum: NAD 83

Soil Map Unit Name: 34B - Sheva fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Upland sample plot adjacent to PEM W-A078. Rainfall event of 0.27 inches in the past 24 hours, normal hydrologic conditions are not present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): ____

Water Table Present? Yes ✔ No ____ Depth (inches): 8

Saturation Present? (includes capillary fringe) Yes ✔ No ____ Depth (inches): 8

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, and D2 are present. Indicators A2 and A3 may be misapplied due to recent rains.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-A168

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rubus allegheniensis	30	✔	FACU
2. Quercus phellos	10	✔	FAC
3. Liquidambar styraciflua	5		FAC
4. Alnus serrulata	5		OBL
5.			
6.			
7.			
8.			
9.			
	50 = Total Cover		
50% of total cover: 25.00	20% of total cover: 10.00		
Herb Stratum (Plot size: 5 ft r)			
1. Arthraxon hispidus	20	✔	FAC
2. Dichanthelium aciculare	15	✔	FACU
3. Eupatorium capillifolium	10	✔	FACU
4. Agrostis stolonifera	10	✔	FACW
5. Agrostis perennans	10	✔	FACU
6. Dichanthelium scoparium	5		FACW
7. Eupatorium perfoliatum	5		FACW
8. Symphyotrichum lateriflorum	5		FACW
9. Eupatorium serotinum	5		FAC
10. Schizachyrium scoparium	5		FACU
11. Vernonia noveboracensis	5		FACW
	95 = Total Cover		
50% of total cover: 47.50	20% of total cover: 19.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Vitis rotundifolia	5	✔	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	30	x 2 =	60
FAC species	45	x 3 =	135
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	150 (A)		480 (B)

Prevalence Index = B/A = 3.20

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests for hydrophytic vegetation are passed.

SOIL Sampling Point: SP-A168

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/3	100					Silt Loam	
4 - 16	10YR 6/2	90	10YR 5/6	10	C	M	Silty Clay Loam	
16 - 20	10YR 6/1	80	10YR 5/6	20	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B027

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR or MLRA): Lat: 36.54183365 Long: -79.63260051 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B013a. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✔ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✔	No ____	Depth (inches): 1
Water Table Present?	Yes ✔	No ____	Depth (inches): 3
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A1, A2, A3, C3, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B027

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Carex lurida	40	✔	OBL
2. Microstegium vimineum	10		FAC
3. Bidens aristosa	5		FACW
4. Toxicodendron radicans	5		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60 = Total Cover		
50% of total cover: 30.00	20% of total cover: 12.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	5	x 2 =	10
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	60 (A)		95 (B)

Prevalence Index = B/A = 1.58

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, dominance test and prevalence index are met.

SOIL Sampling Point: SP-B027

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 6/1	100					Silty Clay Loam	
3 - 10	10YR 6/2	95	5YR 5/6	5	C	PL / M	Sandy Clay Loam	
10 - 21	10YR 5/1	90	5YR 5/6	10	C	PL / M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B028

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Toe Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.54184067 Long: -79.63263151 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks:

Upland sample plot adjacent to PEM W-B013a. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B028

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	30	✔	FAC
2. Solidago altissima	20	✔	FACU
3. Lespedeza cuneata	15		FACU
4. Toxicodendron radicans	10		FAC
5. Daucus carota	5		UPL
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
50% of total cover: 40.00	20% of total cover: 16.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	35	x 4 =	140
UPL species	5	x 5 =	25
Column Totals:	80 (A)		285 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B028

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/4	50					Sandy Clay Loam	
0 - 20	10YR 5/4	40	7.5YR 6/8	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B029

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.54168436 Long: -79.63260251 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B013b. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B029

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	40	✔	FAC
2. Acer rubrum	20	✔	FAC
3.			
4.			
5.			
6.			
7.			
	60 = Total Cover		
50% of total cover: 30.00	20% of total cover: 12.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	20	✔	FAC
2. Carpinus caroliniana	15	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		
50% of total cover: 17.50	20% of total cover: 7.00		
Herb Stratum (Plot size: 5 ft r)			
1. Arisaema triphyllum	10	✔	FACW
2. Smilax rotundifolia	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		320 (B)

Prevalence Index = B/A = 2.90

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B029

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 4/3	100					Silt Loam	
3 - 21	10YR 6/2	97	7.5YR 6/8	3	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-06

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B030

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.54189343 Long: -79.63268131 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B013b. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B030

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	40	✔	FAC
2. Quercus muehlenbergii	30	✔	UPL
3. Acer rubrum	20	✔	FAC
4.			
5.			
6.			
7.			
	90 = Total Cover		
50% of total cover: 45.00	20% of total cover: 18.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	20	✔	FAC
2. Carpinus caroliniana	15	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	35 = Total Cover		
50% of total cover: 17.50	20% of total cover: 7.00		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	30	x 5 =	150
Column Totals:	130 (A)		450 (B)

Prevalence Index = B/A = 3.46

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B030

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 5/3	100					Silt Loam	
3 - 21	10YR 6/3	48					Silt Loam	
3 - 21	10YR 5/3	50	10YR 5/8	2	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B031

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.54430612 Long: -79.62984335 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B014. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____	
Water Table Present?	Yes ✔	No ____	Depth (inches): 5	
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 13	**Wetland Hydrology Present? Yes ✔ No ____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B031

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	25	✔	FAC
2. Quercus alba	25	✔	FACU
3. Fraxinus pennsylvanica	15	✔	FACW
4. Quercus phellos	10		FAC
5.			
6.			
7.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fraxinus pennsylvanica	10	✔	FACW
2. Acer rubrum	5	✔	FAC
3. Betula nigra	5	✔	FACW
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Herb Stratum (Plot size: 5 ft r)			
1. Dulichium arundinaceum	15	✔	OBL
2. Prasina atlantica	10		FACW
3. Dichanthelium clandestinum	10		FAC
4. Microstegium vimineum	10		FAC
5. Stellaria palustris	5		
6. Juncus effusus	5		FACW
7.			
8.			
9.			
10.			
11.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	45	x 2 =	90
FAC species	60	x 3 =	180
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	145 (A)		385 (B)

Prevalence Index = B/A = 2.65

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B031

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	7.5YR 5/2	97	7.5YR 6/8	3	C	M	Sandy Clay Loam	
6 - 21	10YR 6/1	95	7.5YR 5/8	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B032

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-3

Subregion (LRR or MLRA): P 136 Lat: 36.54433248 Long: -79.62982124 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B014. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D5 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B032

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	25	✔	FAC
2. Quercus alba	25	✔	FACU
3. Fraxinus pennsylvanica	15	✔	FACW
4. Quercus phellos	10		FAC
5.			
6.			
7.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fraxinus pennsylvanica	10	✔	FACW
2. Acer rubrum	5	✔	FAC
3. Betula nigra	5	✔	FACW
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Herb Stratum (Plot size: 5 ft r)			
1. Vitis rotundifolia	15	✔	FAC
2. Smilax rotundifolia	5	✔	FAC
3. Rubus trivialis	5	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 77.77 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	60	x 3 =	180
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	120 (A)		360 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B032

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	2.5YR 3/1	100					Sandy Clay Loam	
3 - 10	7.5YR 5/3	100					Sandy Clay Loam	
10 - 21	7.5YR 5/4	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B033

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.55252399 Long: -79.62177695 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B015. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B033

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	25	✔	FAC
2. Acer rubrum	25	✔	FAC
3. Fagus grandifolia	15	✔	FACU
4.			
5.			
6.			
7.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft r)			
1. Amphicarpaea bracteata	15	✔	FAC
2. Carex radiata	15	✔	FAC
3. Juncus effusus	15	✔	FACW
4. Dichanthelium clandestinum	10	✔	FAC
5. Toxicodendron radicans	10	✔	FAC
6. Poa trivialis	10	✔	FACW
7. Polystichum acrostichoides	5		FACU
8. Lonicera japonica	5		FACU
9. Parthenocissus quinquefolia	5		FACU
10. Microstegium vimineum	5		FAC
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 90.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	115	x 3 =	345
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	170 (A)		515 (B)

Prevalence Index = B/A = 3.02

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B033

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 21	10YR 5/2	60	2.5YR 4/8	3	C	M	Sandy Loam	
0 - 21	7.5YR 4/2	37					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B034

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-3

Subregion (LRR or MLRA): P 136 Lat: 36.5525304 Long: -79.62176637 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks:

Upland sample plot adjacent to PFO W-B015. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B034

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus alba	25	✔	FACU
2. Acer rubrum	20	✔	FAC
3. Fagus grandifolia	10		FACU
4.			
5.			
6.			
7.			
	55 = Total Cover		
50% of total cover: 27.5	20% of total cover: 11		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Juniperus virginiana	5	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	65 (A)		235 (B)

Prevalence Index = B/A = 3.61

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B034

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 11	10YR 4/3	100					Sandy Clay Loam	
11 - 21	7.5YR 5/4	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B035

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.55118578 Long: -79.61566887 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B016. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 3
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 2

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, B9, B10, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B035

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	30	✔	FAC
2. Acer rubrum	30	✔	FAC
3. Platanus occidentalis	10		FACW
4. Fraxinus pennsylvanica	10		FACW
5. Salix nigra	5		OBL
6.			
7.			
	85	= Total Cover	
50% of total cover: 42.50	20% of total cover: 17.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2. Acer rubrum	10	✔	FAC
3. Fraxinus pennsylvanica	10	✔	FACW
4. Platanus occidentalis	10	✔	FACW
5.			
6.			
7.			
8.			
9.			
	40	= Total Cover	
50% of total cover: 20.00	20% of total cover: 8.00		
Herb Stratum (Plot size: 5 ft r)			
1. Prasina atlantica	15	✔	FACW
2. Dulichium arundinaceum	10	✔	OBL
3. Juncus effusus	5		FACW
4. Campsis radicans	5		FAC
5. Rubus trivialis	5		FACU
6. Toxicodendron radicans	5		FAC
7.			
8.			
9.			
10.			
11.			
	45	= Total Cover	
50% of total cover: 22.50	20% of total cover: 9.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	60	x 2 =	120
FAC species	90	x 3 =	270
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	170 (A)		425 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B035

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 5/3	100					Sandy Clay Loam	
3 - 21	10YR 6/1	95	7.5R 6/8	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-07

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B036

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR or MLRA): P 136 Lat: 36.551186 Long: -79.6156 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B016. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. 0.04" of rain fell within the past 24 hours. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B036

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus alata	25	✔	FACU
2. Ulmus rubra	20	✔	FAC
3. Platanus occidentalis	20	✔	FACW
4.			
5.			
6.			
7.			
	65 = Total Cover		
50% of total cover: 32.50	20% of total cover: 13.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	15	✔	FAC
2. Liquidambar styraciflua	15	✔	FAC
3. Quercus phellos	10	✔	FAC
4. Quercus alba	10	✔	FACU
5.			
6.			
7.			
8.			
9.			
	50 = Total Cover		
50% of total cover: 25.00	20% of total cover: 10.00		
Herb Stratum (Plot size: 5 ft r)			
1. Parthenocissus quinquefolia	10	✔	FACU
2. Campsis radicans	5	✔	FAC
3. Bidens frondosa	5	✔	FACW
4. Rumex crispus	5	✔	FAC
5. Microstegium vimineum	5	✔	FAC
6. Lonicera japonica	5	✔	FACU
7. Rubus trivialis	5	✔	FACU
8.			
9.			
10.			
11.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 14 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 64.28 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	75	x 3 =	225
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	155 (A)		495 (B)

Prevalence Index = B/A = 3.19

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B036

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 5	10YR 4/3	100					Sandy Clay Loam	
5 - 21	10YR 5/4	98	10YR 5/6	2	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B037

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.55782171 Long: -79.61642084 Datum: NAD 83

Soil Map Unit Name: 34B - Sheva fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B017. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. Area contains relict logging debris, disturbing hydrology by causing water to accumulate and causing an upland berm within the wetland. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 5
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B037

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Holcus lanatus	30	✔	FAC
2. Juncus effusus	15	✔	FACW
3. Dichanthelium clandestinum	10	✔	FAC
4. Carex vulpinoidea	10	✔	OBL
5. Prasina atlantica	5		FACW
6. Lonicera japonica	5		FACU
7. Lespedeza cuneata	5		FACU
8. Galium aparine	5		FACU
9. Bidens aristosa	5		FACW
10. Solidago canadensis	5		FACU
11. Elaeagnus umbellata	5		FAC
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	25	x 2 =	50
FAC species	45	x 3 =	135
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		275 (B)

Prevalence Index = B/A = 2.75

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B037

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 4/2	100					Sandy Loam	
3 - 10	2.5Y 4/2	85	5YR 5/6	3	C	M	Sandy Loam	
3 - 10	2.5Y 5/2	12					Sandy Loam	
10 - 21	2.5Y 5/2	100					Sandy Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B038

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Mound Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.55783135 Long: -79.6163519 Datum: NAD 83

Soil Map Unit Name: 34B - Sheva fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-B017. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. Area contains relict logging debris, disturbing hydrology by causing water to accumulate and causing an upland berm within the wetland. While problematic, hydrology not considered to meet due to lack of geomorphic position on a 1-meter rise above the wetland. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D5 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B038

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Holcus lanatus	20	✔	FAC
2. Bidens aristosa	20	✔	FACW
3. Lolium perenne	15		FACU
4. Juncus effusus	15		FACW
5. Solidago canadensis	10		FACU
6. Toxicodendron radicans	5		FAC
7. Poa pratensis	5		FACU
8.			
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	25	x 3 =	75
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	90 (A)		265 (B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B038

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 21	2.5Y 5/2	98	5YR 5/6	2	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B039

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.55633858 Long: -79.61736468 Datum: NAD 83

Soil Map Unit Name: 34B - Sheva fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B018. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B10 and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B039

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	35	✔	FACU
2. Carya glabra	25	✔	FACU
3. Ulmus rubra	20	✔	FAC
4. Liquidambar styraciflua	10		FAC
5. Quercus alba	10		FACU
6.			
7.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	50	✔	FAC
2. Prasina atlantica	15	✔	FACW
3. Smilax rotundifolia	15	✔	FAC
4. Vitis rotundifolia	15	✔	FAC
5. Polystichum acrostichoides	5		FACU
6. Juncus effusus	5		FACW
7.			
8.			
9.			
10.			
11.			
	105 = Total Cover		
50% of total cover: 52.5	20% of total cover: 21		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	115	x 3 =	345
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	210 (A)		685 (B)

Prevalence Index = B/A = 3.26

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B039

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 3/2	100					Sandy Clay Loam	
2 - 10	10YR 4/2	97	7.5YR 4/6	3	C	M	Sandy Clay Loam	
10 - 21	10YR 6/1	95	7.5YR 4/6	5	C	M	Sandy Clay	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B040

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.55636555 Long: -79.61746127 Datum: NAD 83

Soil Map Unit Name: 34B - Sheva fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B018. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. While problematic, hydrology not considered to meet due to lack of geomorphic position on a 1-meter rise above the wetland. Vegetation, while problematic, would likely not meet criteria in the absence of logging debris, which artifically raises the water table by not allowing water to penetrate the ground at a typical rate. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B040

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carya glabra	40	✔	FACU
2. Fagus grandifolia	20	✔	FACU
3. Ulmus rubra	20	✔	FAC
4. Liquidambar styraciflua	10		FAC
5. Quercus alba	10		FACU
6.			
7.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Herb Stratum (Plot size: 5 ft r)			
1. Lonicera japonica	30	✔	FACU
2. Parthenocissus quinquefolia	10	✔	FACU
3. Prasina atlantica	5		FACW
4. Polystichum acrostichoides	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	35	x 3 =	105
FACU species	115	x 4 =	460
UPL species	0	x 5 =	0
Column Totals:	155 (A)		575 (B)

Prevalence Index = B/A = 3.70

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B040

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/3	100					Sandy Clay Loam	
4 - 15	10YR 4/2	85	10YR 4/6	15	C	M	Sandy Clay Loam	
15 - 21	10YR 6/2	80	10YR 5/6	10	C	M	Sandy Clay	
15 - 21			10YR 3/6	10	C	M	Sandy Clay	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B041

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): Lat: 36.5616225 Long: -79.61302422 Datum: NAD 83

Soil Map Unit Name: 29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B019. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B9, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B041

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	70	✔	FACW
2. Scirpus atrovirens	10		OBL
3. Lonicera japonica	5		FACU
4. Urtica dioica	5		FACU
5. Vitis rotundifolia	5		FAC
6. Phytolacca americana	5		FACU
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	70	x 2 =	140
FAC species	5	x 3 =	15
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	100 (A)		225 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test, prevalence index and dominance test are passed.

SOIL Sampling Point: SP-B041

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	7.5YR 3/2	100					Sandy Loam	
2 - 10	2.5Y 4/2	95	10YR 5/8	5	C	M	Sandy Clay Loam	
10 - 21	10YR 6/4	98	7.5YR 6/8	2	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-10

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B042

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-3

Subregion (LRR or MLRA): P 136 Lat: 36.561602 Long: -79.612967 Datum: NAD 83

Soil Map Unit Name: 29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-B019. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B042

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Carya glabra	30	✔	FACU
2. Solanum carolinense	15	✔	FACU
3. Lespedeza angustifolia	15	✔	FAC
4. Vitis rotundifolia	10		FAC
5. Verbascum thapsus	5		FACU
6. Smilax bona-nox	5		FACU
7. Phytolacca americana	5		FACU
8.			
9.			
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.50	20% of total cover: 17.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	85 (A)		315 (B)

Prevalence Index = B/A = 3.70

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-B042

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 21	10YR 4/4	80	10YR 4/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B043

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR or MLRA): P 136 Lat: 36.56552447 Long: -79.6135057 Datum: NAD 83

Soil Map Unit Name: 29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PSS W-B020. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. Year-old logging debris disturbed hydrology in hillside drainageway. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B043

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		

50% of total cover: 5 20% of total cover: 2

Herb Stratum (Plot size: 5 ft r)			
1. Cyperus strigosus	25	✔	FACW
2. Juncus effusus	20	✔	FACW
3. Juncus tenuis	15		FAC
4. Lolium perenne	10		FACU
5. Rubus trivialis	5		FACU
6. eupatorium capillifolium	5		
7. Eupatorium perfoliatum	5		FACW
8.			
9.			
10.			
11.			
	85 = Total Cover		

50% of total cover: 42.5 20% of total cover: 17

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	25	x 3 =	75
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	90 (A)		235 (B)

Prevalence Index = B/A = 2.61

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B043

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	2.5Y 6/1	98	5YR 5/6	2	C	M	Sandy Loam	
3 - 10	7.5YR 5/2	60	7.5YR 5/3	3	C	M	Sandy Loam	
3 - 10	7.5YR 5/3	37					Sandy Loam	
10 - 21	10YR 6/4	45	10YR 5/6	20	C	M	Sandy Clay Loam	
10 - 21	10YR 5/4	35						
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B044

Investigator(s): P.Meier, E.Sanchez, L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 10

Subregion (LRR or MLRA): P 136 Lat: 36.5655191 Long: -79.6137156 Datum: WGS 84

Soil Map Unit Name: 29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland drainage above PSS wetland W-B020. Area heavily disturbed from timber harvest activities.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

NO WETLAND HYDROLOGY INDICATORS PRESENT.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B044

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rubus argutus	30	✔	FACU
2. Pinus taeda	20	✔	FAC
3. Acer rubrum	10		FAC
4. Liquidambar styraciflua	10		FAC
5.			
6.			
7.			
8.			
9.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Herb Stratum (Plot size: 10 ft r)			
1. Eupatorium capillifolium	20	✔	FACU
2. Eupatorium serotinum	20	✔	FAC
3. Andropogon virginicus	10	✔	FACU
4. Dichanthelium clandestinum	10	✔	FAC
5. Parthenocissus quinquefolia	10	✔	FACU
6. Phytolacca americana	10	✔	FACU
7. Juncus effusus	5		FACW
8.			
9.			
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.50	20% of total cover: 17.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 37.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	70	x 3 =	210
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	155 (A)		540 (B)

Prevalence Index = B/A = 3.48

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

NO HYDROPHYTIC VEGETATION INDICATORS MET.

SOIL Sampling Point: SP-B044

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/8	100					Sandy Clay Loam	NO HYDRIC SOIL INDICATORS ARE MET.
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: COMPACTION

Depth (inches): 8

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

NO HYDRIC SOIL INDICATORS ARE MET. REFUSAL AT 8 INCHES DUE TO HEAVILY COMPACTED SOILS.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B045

Investigator(s): P.Meier, E.Sanchez, L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 10

Subregion (LRR or MLRA): P 136 Lat: 36.569634 Long: -79.6079622 Datum: WGS 84

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland drainage in timber harvest area southwest of Oak Hill Road. Area significantly disturbed from timber harvest activities.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

NO WETLAND HYDROLOGY INDICATORS PRESENT.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B045

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Rubus argutus	30	✔	FACU
2. Acer rubrum	10	✔	FAC
3. Liquidambar styraciflua	10	✔	FAC
4. Liriodendron tulipifera	10	✔	FACU
5. Pinus taeda	10	✔	FAC
6.			
7.			
8.			
9.			
	70 = Total Cover		

50% of total cover: 35.00 20% of total cover: 14.00

Herb Stratum (Plot size: 10 ft r)			
1. Danthonia spicata	30	✔	FACU
2. Eupatorium capillifolium	20	✔	FACU
3. Dichanthelium clandestinum	10	✔	FAC
4. Eupatorium serotinum	10	✔	FAC
5. Setaria faberi	10	✔	UPL
6. Solanum carolinense	10	✔	FACU
7. Vitis rotundifolia	10	✔	FAC
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50.00 20% of total cover: 20.00

Woody Vine Stratum (Plot size: 30 ft r)			
1. Vitis rotundifolia	5	✔	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		

50% of total cover: 2.50 20% of total cover: 1.00

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 53.84 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	65	x 3 =	195
FACU species	100	x 4 =	400
UPL species	10	x 5 =	50
Column Totals:	175 (A)		645 (B)

Prevalence Index = B/A = 3.68

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST IS MET.

SOIL Sampling Point: SP-B045

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/8	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

NO HYDRIC SOIL INDICATORS ARE MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B046

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.58482184 Long: -79.59884077 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B021. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D5 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B046

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	40	✔	FAC
2. Fraxinus pennsylvanica	20	✔	FACW
3. Platanus occidentalis	20	✔	FACW
4. Pinus taeda	10		FAC
5.			
6.			
7.			
	90	= Total Cover	
50% of total cover: 45	20% of total cover: 18		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft r)			
1. Galium aparine	15	✔	FACU
2. Eupatorium perfoliatum	15	✔	FACW
3. Polystichum acrostichoides	10		FACU
4. Carex intumescens	5		FACW
5. Microstegium vimineum	5		FAC
6. Viola sororia	5		FAC
7.			
8.			
9.			
10.			
11.			
	55	= Total Cover	
50% of total cover: 27.5	20% of total cover: 11		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	60	x 3 =	180
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	145 (A)		400 (B)

Prevalence Index = B/A = 2.75

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B046

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 21	7.5YR 5/4	50					Sandy Loam	
0 - 21	10YR 4/4	50					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B047

Investigator(s): _____ Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR or MLRA): P 136 Lat: 36.5848079 Long: -79.5989188 Datum: WGS 84

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

PFO wetland W-B021 adjacent to proposed access road off Ed Hardy Road.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes ✔	No _____	Depth (inches): 10
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 4

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND HYDROLOGY INDICATORS A2, A3, B10, D2, AND D5 ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B047

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	40	✔	FAC
2. Carpinus caroliniana	30	✔	FAC
3. Acer rubrum	20	✔	FAC
4. Platanus occidentalis	10		FACW
5.			
6.			
7.			
	100	= Total Cover	
50% of total cover: 50.00	20% of total cover: 20.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	40	✔	FAC
2. Lindera benzoin	10	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	50	= Total Cover	
50% of total cover: 25.00	20% of total cover: 10.00		
Herb Stratum (Plot size: 5 ft r)			
1. Arisaema triphyllum ssp. pusillum	20	✔	
2. Boehmeria cylindrica	10	✔	FACW
3. Chasmanthium latifolium	10	✔	FACU
4. Glyceria striata	10	✔	OBL
5. Woodwardia areolata	10	✔	FACW
6. Polystichum acrostichoides	5		FACU
7.			
8.			
9.			
10.			
11.			
	65	= Total Cover	
50% of total cover: 32.50	20% of total cover: 13.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 88.88 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	30	x 2 =	60
FAC species	140	x 3 =	420
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	195 (A)		550 (B)

Prevalence Index = B/A = 2.82

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST AND PREVALENCE INDEX ARE MET.

SOIL Sampling Point: SP-B047

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/2	90	10YR 2/1	10	C	M	Sandy Loam	
8 - 20	10YR 6/2	90	10R 4/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

HYDRIC SOIL INDICATOR F3 IS MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B048

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.57233393 Long: -79.6062105 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B022. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches):	
Water Table Present?	Yes ✔	No ____	Depth (inches):	16
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches):	5

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A3, B9, B10, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B048

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carpinus caroliniana	60	✔	FAC
2. Liquidambar styraciflua	30	✔	FAC
3. Acer rubrum	10		FAC
4.			
5.			
6.			
7.			
	100	= Total Cover	
50% of total cover: 50	20% of total cover: 20		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	10	✔	FAC
2. Liquidambar styraciflua	5	✔	FAC
3. Carpinus caroliniana	5	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	20	= Total Cover	
50% of total cover: 10	20% of total cover: 4		
Herb Stratum (Plot size: 5 ft r)			
1. Vitis rotundifolia	35	✔	FAC
2. Prasina atlantica	25	✔	FACW
3. Liquidambar styraciflua	15		FAC
4. Fraxinus pennsylvanica	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	= Total Cover	
50% of total cover: 40	20% of total cover: 16		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	170	x 3 =	510
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	200 (A)		570 (B)

Prevalence Index = B/A = 2.85

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B048

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 5/3	98	2.5YR 5/6	2	C	M	Silt Loam	
2 - 21	10YR 6/1	60	2.5YR 6/8	3	C	M	Sandy Clay	
2 - 21	10YR 6/2	37	2.5YR 6/8		C	M	Sandy Clay	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B049

Investigator(s): P.Meier, E.Sanchez, L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.5724138 Long: -79.6060881 Datum: WGS 84

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland area within drainageway, adjacent to PFO wetland W-B022 and S-B031, east of Oak Hill Road.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

NO WETLAND HYDROLOGY INDICATORS ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B049

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carpinus caroliniana	30	✔	FAC
2. Liquidambar styraciflua	30	✔	FAC
3. Liriodendron tulipifera	20	✔	FACU
4. Pinus taeda	10		FAC
5. Quercus rubra	10		FACU
6.			
7.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	20	✔	FAC
2. Carya glabra	5		FACU
3. Liriodendron tulipifera	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15.00	20% of total cover: 6.00		
Herb Stratum (Plot size: 10 ft r)			
1. Euonymus americana	5	✔	FACU
2. Parthenocissus quinquefolia	5	✔	FACU
3. Smilax rotundifolia	5	✔	FAC
4. Vitis rotundifolia	5	✔	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia	5	✔	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	105	x 3 =	315
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	155 (A)		515 (B)

Prevalence Index = B/A = 3.32

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST IS MET.

SOIL Sampling Point: SP-B049

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/3	100					Sandy Loam	
12 - 20	10YR 6/6	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

NO HYDRIC SOIL INDICATORS ARE MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B049a

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.57238332 Long: -79.60599817 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B022. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B049a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	35	✔	FAC
2. Acer rubrum	25	✔	FAC
3.			
4.			
5.			
6.			
7.			
	60 = Total Cover		
50% of total cover: 30.00	20% of total cover: 12.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	35	✔	FAC
2. Liriodendron tulipifera	20	✔	FACU
3. Liquidambar styraciflua	10		FAC
4.			
5.			
6.			
7.			
8.			
9.			
	65 = Total Cover		
50% of total cover: 32.50	20% of total cover: 13.00		
Herb Stratum (Plot size: 5 ft r)			
1. Parthenocissus quinquefolia	25	✔	FACU
2. Smilax rotundifolia	20	✔	FAC
3. Galium aparine	15	✔	FACU
4. Microstegium vimineum	10		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57.14 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	135	x 3 =	405
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	195 (A)		645 (B)

Prevalence Index = B/A = 3.30

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test indicator is met.

SOIL Sampling Point: SP-B049a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 3/3	100					Clay Loam	
2 - 10	10YR 4/4	100					Clay Loam	
10 - 20	10YR 4/3	100					Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B050

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.58673585 Long: -79.58698104 Datum: NAD 83

Soil Map Unit Name: 23B - Clover fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B023. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrology disturbed by natural gas pipeline right-of-way.

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B050

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus alba	25	✔	FACU
2. Fagus grandifolia	20	✔	FACU
3. Liquidambar styraciflua	20	✔	FAC
4. Quercus bicolor	15		FACW
5.			
6.			
7.			
	80	= Total Cover	
50% of total cover: 40	20% of total cover: 16		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5 ft r)			
1. Onoclea sensibilis	50	✔	FACW
2. Smilax rotundifolia	20	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70	= Total Cover	
50% of total cover: 35	20% of total cover: 14		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	40	x 3 =	120
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	150 (A)		430 (B)

Prevalence Index = B/A = 2.86

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed. Vegetation disturbed by natural gas right-of-way.

SOIL Sampling Point: SP-B050

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	7.5R 3/2	100					Sandy Loam	
3 - 15	10YR 6/6	60					Sandy Loam	
3 - 15	7.5YR 3/2	40					Sandy Loam	
15 - 21	10YR 6/6	100					Sandy Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B051

Investigator(s): P.Meier, E.Sanchez, L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR or MLRA): P 136 Lat: 36.5867834 Long: -79.5869842 Datum: WGS 84

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

PFO W-B023 in drainage southwest of Horseshoe Rd.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND HYDROLOGY INDICATORS B10, D2, AND D5 ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B051

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Nyssa sylvatica	30	✔	FAC
3. Liriodendron tulipifera	20	✔	FACU
4. Liquidambar styraciflua	10		FAC
5. Quercus michauxii	10		FACW
6.			
7.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	10	✔	FAC
2. Nyssa sylvatica	10	✔	FAC
3. Acer rubrum	5	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.50	20% of total cover: 5.00		

Herb Stratum (Plot size: 10 ft r)			
1. Onoclea sensibilis	40	✔	FACW
2. Microstegium vimineum	30	✔	FAC
3. Chasmanthium laxum	10		FAC
4. Osmunda cinnamomea	10		
5. Vitis rotundifolia	5		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.50	20% of total cover: 19.00		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	140	x 3 =	420
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	210 (A)		600 (B)

Prevalence Index = B/A = 2.85

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST AND PREVALENCE INDEX ARE MET.

SOIL Sampling Point: SP-B051

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 3/2	90	10YR 5/6	10	C	M	Sandy Loam	
8 - 20	10YR 4/1	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

HYDRIC SOIL INDICATOR F6 IS MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B052

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Linear Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.58473207 Long: -79.59027489 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B025. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B052

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	70	✔	FAC
2. Liriodendron tulipifera	20	✔	FACU
3. Liquidambar styraciflua	10		FAC
4.			
5.			
6.			
7.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	10	✔	FAC
2. Liriodendron tulipifera	10	✔	FACU
3. Liquidambar styraciflua	10	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15.00	20% of total cover: 6.00		

Herb Stratum (Plot size: 5 ft r)			
1. Barbarea vulgaris	10	✔	FACU
2. Smilax rotundifolia	10	✔	FAC
3. Vitis rotundifolia	5		FAC
4. Lonicera japonica	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	30 = Total Cover		
50% of total cover: 15.00	20% of total cover: 6.00		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57.14 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	115	x 3 =	345
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	160 (A)		525 (B)

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B052

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 3/2	100					Sandy Loam	
4 - 6	10YR 5/3	100					Sandy Clay Loam	
6 - 21	10YR 6/6	80					Sandy Clay Loam	
6 - 21	10YR 6/4	20						
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-21

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B052a

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.58440012 Long: -79.58969603 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot within previous TRC wetland. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B052a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Iva annua	40	✔	FAC
2. Bidens aristosa	25	✔	FACW
3. Eupatorium capillifolium	20		FACU
4. Lespedeza cuneata	15		FACU
5. Dichanthelium clandestinum	10		FAC
6. Urtica dioica	10		FACU
7.			
8.			
9.			
10.			
11.			
	120 = Total Cover		
50% of total cover: 60.00	20% of total cover: 24.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	50	x 3 =	150
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	120 (A)		380 (B)

Prevalence Index = B/A = 3.16

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test indicator is met.

SOIL Sampling Point: SP-B052a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/4	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B053

Investigator(s): Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.5846826 Long: -79.5902424 Datum: WGS 84

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

PFO WETLAND W-B025.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND HYDROLOGY INDICATORS B10, D2, AND D5 ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B053

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	60	✔	FAC
2. Carpinus caroliniana	20	✔	FAC
3. Liquidambar styraciflua	20	✔	FAC
4.			
5.			
6.			
7.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	20	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Herb Stratum (Plot size: 10 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Smilax rotundifolia	20	✔	FAC
3. Boehmeria cylindrica	10		FACW
4. Juncus effusus	10		FACW
5. Onoclea sensibilis	10		FACW
6. Carex crinita	5		OBL
7. Toxicodendron radicans	5		FAC
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Smilax rotundifolia			FAC
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	30	x 2 =	60
FAC species	185	x 3 =	555
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	220 (A)		620 (B)

Prevalence Index = B/A = 2.81

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST AND PREVALENCE INDEX ARE MET.

SOIL Sampling Point: SP-B053

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 6/2	80	10YR 4/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

HYDRIC SOIL INDICATOR F3 IS MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B054

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.58386878 Long: -79.59130125 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B026. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B054

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	70	✔	FAC
2. Acer rubrum	20	✔	FAC
3. Pinus taeda	10		FAC
4.			
5.			
6.			
7.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2. Acer rubrum	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	5	✔	FAC
2. Lonicera japonica	5	✔	FACU
3. Viola sororia	5	✔	FAC
4. Parthenocissus quinquefolia	5	✔	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	125	x 3 =	375
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	135 (A)		415 (B)

Prevalence Index = B/A = 3.07

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B054

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 3/2	100					Sandy Loam	
3 - 21	10YR 5/4	100						
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B055

Investigator(s): P.Meier, E.Sanchez, L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR or MLRA): P 136 Lat: 36.583957 Long: -79.591255 Datum: WGS 84

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

PFO WETLAND W-B026.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes ✔ No_____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND HYDROLOGY INDICATORS B10, D2, AND D5 ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B055

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	50	✔	FAC
2. Acer rubrum	20	✔	FAC
3. Platanus occidentalis	20	✔	FACW
4. Liriodendron tulipifera	10		FACU
5.			
6.			
7.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2. Liriodendron tulipifera	10	✔	FACU
3. Ulmus americana	10	✔	FACW
4.			
5.			
6.			
7.			
8.			
9.			
	30 = Total Cover		
50% of total cover: 15.00	20% of total cover: 6.00		
Herb Stratum (Plot size: 10 ft r)			
1. Microstegium vimineum	60	✔	FAC
2. Carex crinita	20	✔	OBL
3. Smilax rotundifolia	10		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45.00	20% of total cover: 18.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	30	x 2 =	60
FAC species	150	x 3 =	450
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	220 (A)		610 (B)

Prevalence Index = B/A = 2.77

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST AND PREVALENCE INDEX ARE MET.

SOIL Sampling Point: SP-B055

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 6/2	80	10YR 3/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

HYDRIC SOIL INDICATOR F3 IS MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B071

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.582757 Long: -79.592039 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B035. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____	
Water Table Present?	Yes ✔	No ____	Depth (inches): 11	
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 7	**Wetland Hydrology Present? Yes ✔ No ____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B071

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Liquidambar styraciflua	25	✔	FAC
3. Carpinus caroliniana	10		FAC
4.			
5.			
6.			
7.			
	65 = Total Cover		
50% of total cover: 32.50	20% of total cover: 13.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	10	✔	FAC
2. Liquidambar styraciflua	10	✔	FAC
3. Carpinus caroliniana	5	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.50	20% of total cover: 5.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	30	✔	FAC
2. Smilax rotundifolia	5		FAC
3. Prasina atlantica	5		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	125	x 3 =	375
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	130 (A)		385 (B)

Prevalence Index = B/A = 2.96

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are present.

SOIL Sampling Point: SP-B071

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 5/2	80					Silty Clay Loam	
0 - 2	10YR 5/3	20					Silty Clay Loam	
2 - 13	10YR 5/1	35					Sandy Clay Loam	
2 - 13	10YR 6/2	60	5YR 5/8	5	C	M	Sandy Clay Loam	
13 - 21	10YR 6/3	70	10YR 4/6	2	C	M	Sand	
13 - 21	10YR 6/4	28					Sand	
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B072

Investigator(s): P.Meier, E.Sanchez, L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 10

Subregion (LRR or MLRA): P 136 Lat: 36.5829187 Long: -79.592195 Datum: WGS 84

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

UPLAND NEAR PFO W-B035.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

NO WETLAND HYDROLOGY INDICATORS MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B072

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carpinus caroliniana	30	✔	FAC
2. Acer rubrum	20	✔	FAC
3. Liquidambar styraciflua	20	✔	FAC
4. Liriodendron tulipifera	20	✔	FACU
5. Carya alba	10		FACU
6.			
7.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	10	✔	FAC
2. Carya alba	5	✔	FACU
3. Liquidambar styraciflua	5	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Herb Stratum (Plot size: 5 ft r)			
1. Asplenium platyneuron	10	✔	FACU
2. Carex pensylvanica	10	✔	FAC
3. Vitis rotundifolia	10	✔	FAC
4. Lonicera japonica	5		FACU
5. Microstegium vimineum	5		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 70.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	110	x 3 =	330
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	160 (A)		530 (B)

Prevalence Index = B/A = 3.31

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST IS MET.

SOIL Sampling Point: SP-B072

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

NO HYDRIC SOIL INDICATORS ARE MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-21

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B073a

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): P 136 Lat: 36.58242679 Long: -79.59180574 Datum: NAD 83

Soil Map Unit Name: 23D - Clover fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM wetland W-B054. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B073a

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Persicaria sagittata	30	✔	OBL
2. Persicaria punctata	20	✔	OBL
3. Bidens aristosa	15	✔	FACW
4. Cyperus strigosus	15	✔	FACW
5. Dichanthelium clandestinum	15	✔	FAC
6. Microstegium vimineum	10		FAC
7.			
8.			
9.			
10.			
11.			
	105 = Total Cover		
50% of total cover: 52.50	20% of total cover: 21.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	30	x 2 =	60
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		185 (B)

Prevalence Index = B/A = 1.76

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B073a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 4/2	60	7.5YR 6/6	5	C	M	Silty Clay Loam	
0 - 3	10YR 4/3	35					Silty Clay Loam	
3 - 20	10YR 5/3	70	7.5YR 4/6	10	C	M	Silty Clay Loam	
3 - 20	10YR 5/4	20					Silty Clay Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-21

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B073b

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.58239866 Long: -79.59185741 Datum: NAD 83

Soil Map Unit Name: 23D - Clover fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM wetland W-B054. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B073b

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Verbesina alternifolia	50	✔	FAC
2. Lespedeza cuneata	35	✔	FACU
3. Dichanthelium clandestinum	15		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Lonicera japonica	15	✔	FACU
2.			
3.			
4.			
5.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	65	x 3 =	195
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	115 (A)		395 (B)

Prevalence Index = B/A = 3.43

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-B073b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 5/4	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B074

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-3

Subregion (LRR or MLRA): P 136 Lat: 36.58738241 Long: -79.58644116 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-B036b. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B074

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Poa pratensis	25	✔	FACU
2. Dichanthelium scoparium	25	✔	FACW
3. Holcus lanatus	20	✔	FAC
4. Juncus effusus	10		FACW
5. Urtica dioica	10		FACU
6. Bidens frondosa	5		FACW
7. Lonicera japonica	5		FACU
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	20	x 3 =	60
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	100 (A)		300 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B074

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10YR 4/3	100					Silty Clay	
10 - 21	10YR 4/3	20					Sandy Clay Loam	
10 - 21	10YR 5/6	80					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B075

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.58738896 Long: -79.58648536 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B036b, sample plot representative of conditions in PEM W-B024. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 5

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B6, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B075

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Holcus lanatus	40	✔	FAC
2. Dichanthelium scoparium	30	✔	FACW
3. Juncus effusus	10		FACW
4. Bidens frondosa	10		FACW
5. Persicaria longiseta	5		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.50	20% of total cover: 19.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	45	x 3 =	135
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		235 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B075

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/1	85	10YR 3/6	15	C	M	Sandy Clay Loam	
4 - 21	2.5Y 6/2	82	5YR 3/4	8	C	M	Sandy Clay Loam	
4 - 21			5YR 4/6	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B076

Investigator(s): P.Meier, E.Sanchez, L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR or MLRA): P 136 Lat: 36.5874712 Long: -79.5862974 Datum: WGS 84

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

PFO W-B036a northeast of Horseshoe Rd.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND HYDROLOGY INDICATORS B10, D2, AND D5 ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B076

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	40	✔	FAC
2. Liquidambar styraciflua	20	✔	FAC
3. Liriodendron tulipifera	20	✔	FACU
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40.00	20% of total cover: 16.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2. Juniperus virginiana	5	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	30	✔	FAC
2. Cinna arundinacea	20	✔	FACW
3. Onoclea sensibilis	20	✔	FACW
4. Dichanthelium clandestinum	10		FAC
5. Bidens aristosa	5		FACW
6. Carex lurida	5		OBL
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45.00	20% of total cover: 18.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	45	x 2 =	90
FAC species	110	x 3 =	330
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	185 (A)		525 (B)

Prevalence Index = B/A = 2.83

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST AND PREVALENCE INDEX ARE MET.

SOIL Sampling Point: SP-B076

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/2	80	7.5YR 4/4	15	C	M	Sandy Clay Loam	
0 - 8			7.5YR 4/4	5	C	PL	Sandy Clay Loam	
8 - 20	10YR 5/1	80	10YR 4/4	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

HYDRIC SOIL INDICATOR F3 IS MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B077

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2

Subregion (LRR or MLRA): P 136 Lat: 36.59028984 Long: -79.58326311 Datum: NAD 83

Soil Map Unit Name: 29D - Pinkston-Clover complex, 15 to 35 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B037a. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B077

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	35	✔	FAC
2. Dichanthelium scoparium	15	✔	FACW
3. Juncus effusus	10	✔	FACW
4. Prasina atlantica	10	✔	FACW
5. Bidens frondosa	10	✔	FACW
6. Holcus lanatus	10	✔	FAC
7. Carex pendula	5		
8. Smilax rotundifolia	5		FAC
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		240 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are passed.

SOIL Sampling Point: SP-B077

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	7.5YR 3/2	100					Sandy Loam	
3 - 21	10YR 6/1	25	7.5YR 6/8	5	C	M	Sandy Clay Loam	
3 - 21	10YR 6/2	60	7.5YR 5/8	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B078

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 0-2

Subregion (LRR or MLRA): P 136 Lat: 36.5902928 Long: -79.58317791 Datum: NAD 83

Soil Map Unit Name: 29D - Pinkston-Clover complex, 15 to 35 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B037b. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B078

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	25	✔	FAC
2. Platanus occidentalis	20	✔	FACW
3. Quercus rubra	10		FACU
4. Quercus alba	5		FACU
5. Nyssa sylvatica	5		FAC
6.			FACU
7.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Ludwigia peploides	15	✔	OBL
2. Ilex opaca	5	✔	FACU
3. Chasmanthium laxum	5	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	20	x 2 =	40
FAC species	35	x 3 =	105
FACU species	155	x 4 =	620
UPL species	0	x 5 =	0
Column Totals:	225 (A)		780 (B)

Prevalence Index = B/A = 3.46

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B078

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	7.5YR 3/2	100					Silt Loam	
6 - 15	10YR 6/2	60	5YR 4/6	5	C	M	Sandy Loam	
6 - 15	7.5YR 5/2	35					Sandy Loam	
15 - 21	10YR 6/2	92	5YR 5/8	8	C	M	Sandy Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B079

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Undulating Slope (%): 2-3

Subregion (LRR or MLRA): P 136 Lat: 36.59041395 Long: -79.58321613 Datum: NAD 83

Soil Map Unit Name: 29D - Pinkston-Clover complex, 15 to 35 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to W-B037. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B079

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Lespedeza cuneata	55	✔	FACU
2. Amphicarpaea bracteata	30	✔	FAC
3. Holcus lanatus	5		FAC
4. Smilax rotundifolia	5		FAC
5.			
6.			
7.			
	95	= Total Cover	
50% of total cover: 47.5	20% of total cover: 19		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		= Total Cover	
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		= Total Cover	
50% of total cover:	20% of total cover:		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	95 (A)		340 (B)

Prevalence Index = B/A = 3.57

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B079

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 21	7.5YR 5/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-14

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B080

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2

Subregion (LRR or MLRA): P 136 Lat: 36.59874431 Long: -79.57430627 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B039b. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B080

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Ulmus rubra	20	✔	FAC
3. Carpinus caroliniana	20	✔	FAC
4. Liquidambar styraciflua	15		FAC
5.			
6.			
7.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ulmus rubra	20	✔	FAC
2. Acer rubrum	15	✔	FAC
3. Liquidambar styraciflua	15	✔	FAC
4. Carpinus caroliniana	10		FAC
5.			
6.			
7.			
8.			
9.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		
Herb Stratum (Plot size: 5 ft r)			
1. Lindera benzoin	40	✔	FAC
2. Athyrium asplenioides	20	✔	FAC
3. Ludwigia peploides	10		OBL
4. Rubus trivialis	10		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
50% of total cover: 40	20% of total cover: 16		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	0	x 2 =	0
FAC species	205	x 3 =	615
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	225 (A)		665 (B)

Prevalence Index = B/A = 2.95

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B080

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/2	100					Sandy Clay Loam	
2 - 21	10YR 5/1	60	7.5YR 5/4	10	C	M	Silt Loam	
2 - 21	10YR 5/2	30					Silt Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-14

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B081

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.5987308 Long: -79.57446877 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B039a. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B081

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus occidentalis	10	✔	FACW
2. Acer rubrum	10	✔	FAC
3. Fraxinus pennsylvanica	5	✔	FACW
4.			
5.			
6.			
7.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	30	✔	FACW
2. Dichanthelium scoparium	25	✔	FACW
3. Carex obnupta	25	✔	
4. Lonicera japonica	20	✔	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	10	x 3 =	30
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		250 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B081

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 5/3	100					Sandy Loam	
2 - 21	2.5Y 5/3	30					Sandy Clay Loam	
2 - 21	2.5Y 5/2	60	5YR 5/4	10	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-21

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B081a

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): P 136 Lat: 36.59877106 Long: -79.57446008 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within W-B039a. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B081a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	10	✔	FAC
2. Platanus occidentalis	10	✔	FACW
3. Fraxinus pennsylvanica	5	✔	FACW
4.			
5.			
6.			
7.			
	25 = Total Cover		
50% of total cover: 12.50	20% of total cover: 5.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Juncus effusus	30	✔	FACW
2. Carex prasina	25	✔	OBL
3. Dichanthelium clandestinum	25	✔	FAC
4. Bidens aristosa	15		FACW
5. Boehmeria cylindrica	10		FACW
6.			
7.			
8.			
9.			
10.			
11.			
	105 = Total Cover		
50% of total cover: 52.50	20% of total cover: 21.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Amphicarpaea bracteata	15	✔	FAC
2.			
3.			
4.			
5.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	70	x 2 =	140
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	145 (A)		315 (B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B081a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 4/3	100					Silty Clay Loam	
3 - 20	10YR 5/2	60	7.5YR 5/6	10	C	M	Silty Clay Loam	
3 - 20	10YR 5/3	30					Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-14

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B082

Investigator(s): ES, LC, PM Section, Township, Range:

Landform (hillslope, terrace, etc.): Stream Terrace Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.60327218 Long: -79.57044436 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil _____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PSS W-B041. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes ✔	No _____	Depth (inches): 5
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 3

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3 and D2 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B082

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size: 5 ft r)			
1. Athyrium asplenioides	30	✔	FAC
2. Dichanthelium clandestinum	20	✔	FAC
3. Microstegium vimineum	15	✔	FAC
4. Arundinaria tecta	10		FACW
5. Lonicera japonica	5		FACU
6. Smilax rotundifolia	5		FAC
7. Carex frankii	5		OBL
8. Lespedeza cuneata	5		FACU
9. Eupatorium capillifolium	5		FACU
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	10	x 2 =	20
FAC species	80	x 3 =	240
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	110 (A)		325 (B)

Prevalence Index = B/A = 2.95

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B082

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/2	35					Silty Clay Loam	
0 - 8	10YR 4/2	60	5YR 5/6	5	C	M	Silty Clay Loam	
8 - 16	5YR 5/6	100					Clay Loam	
16 - 21	5YR 5/2	85	5YR 5/8	15	C	M	Clay Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-14

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B083

Investigator(s): P.Meier ; E.Sanchez ; L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 10

Subregion (LRR or MLRA): P 136 Lat: 36.6032407 Long: -79.5705285 Datum: WGS 84

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ___
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland area at toe of slope, southwest of stream S-B044a and wetland W-B041.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

NO WETLAND HYDROLOGY INDICATORS ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B083

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	20	✔	FAC
2. Lespedeza thunbergii	20	✔	
3. Tridens flavus	20	✔	FACU
4. Eupatorium capillifolium	15		FACU
5. Lolium perenne	10		FACU
6. Achillea millefolium	5		FACU
7. Elymus virginicus	5		FACW
8. Lonicera japonica	5		FACU
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	20	x 3 =	60
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	80 (A)		290 (B)

Prevalence Index = B/A = 3.62

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

NO HYDROPHYTIC VEGETATION INDICATORS ARE MET.

SOIL Sampling Point: SP-B083

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	7.5YR 4/4	95	5YR 4/6	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

NO HYDRIC SOIL INDICATORS ARE MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B084

Investigator(s): ES, JM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 2-3

Subregion (LRR or MLRA): P 136 Lat: 36.60599924 Long: -79.56811921 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil _____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-B042. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B084

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	20	✔	FAC
2. Amphicarpaea bracteata	15	✔	FAC
3. Lespedeza bicolor	15	✔	UPL
4. Lespedeza cuneata	15	✔	FACU
5. Eupatorium capillifolium	15	✔	FACU
6. Galium aparine	5		FACU
7. Solidago altissima	5		FACU
8. Juncus effusus	5		FACW
9. Dichanthelium scoparium	5		FACW
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	35	x 3 =	105
FACU species	40	x 4 =	160
UPL species	15	x 5 =	75
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B084

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 21	7.5YR 4/6	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-11

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B085

Investigator(s): ES, JM Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.60593943 Long: -79.56801103 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B042. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ✔ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ✔ No____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C8, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B085

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Prasina atlantica	20	✔	FACW
2. Juncus effusus	20	✔	FACW
3. Ludwigia peploides	15	✔	OBL
4. Persicaria sagittata	10		OBL
5. Rubus trivialis	10		FACU
6. Microstegium vimineum	10		FAC
7. Solidago altissima	5		FACU
8. Lonicera japonica	5		FACU
9. Amphicarpaea bracteata	5		FAC
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	40	x 2 =	80
FAC species	15	x 3 =	45
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		230 (B)

Prevalence Index = B/A = 2.30

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Rapid test and dominance test are passed.

SOIL Sampling Point: SP-B085

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 4/2	90	10R 3/4	10	C	M	Sandy Loam	
6 - 21	7.5YR 4/2	95	10R 4/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B086

Investigator(s): ES, JM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.61330082 Long: -79.5634708 Datum: NAD 83

Soil Map Unit Name: 4C - Clifford sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B043. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicator D2 is present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B086

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carpinus caroliniana	20	✔	FAC
2. Acer rubrum	20	✔	FAC
3. Amauropelta noveboracensis	20	✔	FAC
4. Chasmanthium latifolium	20	✔	FACU
5. Quercus alba	10		FACU
6. Oxydendrum arboreum	10		UPL
7.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	30	x 4 =	120
UPL species	10	x 5 =	50
Column Totals:	100 (A)		350 (B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B086

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 21	7.5YR 5/6	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B087

Investigator(s): ES, JM Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.61337778 Long: -79.56348025 Datum: NAD 83

Soil Map Unit Name: 4C - Clifford sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-B043. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____	
Water Table Present?	Yes ✔	No ____	Depth (inches): 9	
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 7	**Wetland Hydrology Present? Yes ✔ No ____**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B087

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	40	✔	FAC
2. Oxydendrum arboreum	20	✔	UPL
3. Fraxinus pennsylvanica	15	✔	FACW
4.			
5.			
6.			
7.			
	75 = Total Cover		
50% of total cover: 37.5	20% of total cover: 15		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Amauropelta globulifera	50	✔	FAC
2. Osmundastrum cinnamomeum	10		FACW
3. Smilax rotundifolia	10		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	100	x 3 =	300
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column Totals:	145 (A)		450 (B)

Prevalence Index = B/A = 3.10

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B087

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 5/1	70					Sandy Loam	
0 - 4	7.5YR 4/1	27	5YR 3/4	3	C	M	Sandy Loam	
4 - 21	7.5YR 5/1	60					Sandy Loam	
4 - 21	7.5YR 4/1	35	5YR 4/4	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B088

Investigator(s): ES, JM Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 2-3

Subregion (LRR or MLRA): P 136 Lat: 36.61718978 Long: -79.55985650 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks:

Upland sample plot adjacent to PEM W-B044. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B088

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Urtica dioica	25	✔	FACU
2. Rubus trivialis	25	✔	FACU
3. Pueraria montana	20	✔	UPL
4. Bidens frondosa	10		FACW
5. Vitis rotundifolia	10		FAC
6. Toxicodendron radicans	5		FAC
7. Juncus effusus	5		FACW
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	15	x 3 =	45
FACU species	50	x 4 =	200
UPL species	20	x 5 =	100
Column Totals:	100 (A)		375 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B088

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	7.5YR 5/6	100					Silt Loam	
4 - 21	7.5YR 4/6	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-21

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B088a

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.61716692 Long: -79.55968012 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B044. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B088a

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	45	✔	FAC
2. Dichanthelium scoparium	20	✔	FACW
3. Vernonia gigantea	15		FAC
4. Cyperus strigosus	10		FACW
5. Bidens aristosa	5		FACW
6. Setaria pumila	5		FAC
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	65	x 3 =	195
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		265 (B)

Prevalence Index = B/A = 2.65

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B088a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 5	10YR 5/2	97	7.5YR 5/6	3	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present. No soils excavated below 5 inches due to sample plot location in gas pipeline right-of-way.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-17

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B089

Investigator(s): ES, JM Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.61730029 Long: -79.55970749 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-B044. Vegetation and hydrology significantly disturbed by natural gas pipeline right-of-way. The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Indicators B6, D2 and D5 are present.

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B089

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Persicaria sagittata	30	✔	OBL
2. Juncus effusus	20	✔	FACW
3. Bidens frondosa	15	✔	FACW
4. Prasina atlantica	15	✔	FACW
5. Solidago canadensis	10		FACU
6. Eleocharis obtusa	10		OBL
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		180 (B)

Prevalence Index = B/A = 1.80

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and rapid test are passed.

SOIL Sampling Point: SP-B089

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/3	90	7.5YR 4/6	10	C	M	Sandy Clay Loam	
2 - 12	2.5Y 5/2	85	7.5YR 4/4	5	C	M	Sandy Clay Loam	
2 - 12	5GY 5/1	10					Sandy Clay Loam	
12 - 21	5B 6/1	30	5YR 5/8	15	C	M	Sandy Clay	
12 - 21	7.5YR 5/6	55						
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B098

Investigator(s): P.Meier ; E.Sanchez ; L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.5960091 Long: -79.5769997 Datum: WGS 84

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

PEM W-B038a southwest of Withers Road crossing, representative of conditions in PEM W-B038c.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND HYDROLOGY INDICATORS C3 AND D5 ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B098

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			FACW
2.			FAC
3.			FACW
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			FACW
2.			FAC
3.			FACW
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Diodia virginiana	20	✔	FACW
2. Juncus effusus	20	✔	FACW
3. Juncus tenuis	20	✔	FAC
4. Bidens aristosa	10		FACW
5. Vernonia noveboracensis	10		FACW
6. Dichanthelium clandestinum	10		FAC
7. Lolium arundinaceum	10		FACU
8.			
9.			
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	020201010	x 2 =	40402020
FAC species	02010	x 3 =	6030
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	20203030 (A)		40408090 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST AND PREVALENCE INDEX ARE MET.

SOIL Sampling Point: SP-B098

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 5/2	85	10YR 3/6	10	C	M	Sandy Loam	
-			10YR 3/6	5	C	PL		
4 - 20	10YR 5/1	85	10YR 4/6	10	C	M	Sandy Clay Loam	
-			10YR 4/6	5	C	PL		
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

HYDRIC SOIL INDICATOR F3 IS MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B099

Investigator(s): P.Meier; E.Sanchez; L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.5959305 Long: -79.5771231 Datum: WGS 84

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland area adjacent to stream S-B042 and PEM W-B038a.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

NO WETLAND HYDROLOGY INDICATORS ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B099

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	40	✔	FAC
2. Carpinus caroliniana	10	✔	FAC
3.			
4.			
5.			
6.			
7.			
	50 = Total Cover		
50% of total cover: 25.00	20% of total cover: 10.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	5	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 = Total Cover		
50% of total cover: 2.50	20% of total cover: 1.00		
Herb Stratum (Plot size: 5 ft r)			
1. Lespedeza procumbens	20	✔	
2. Anthoxanthum odoratum	20	✔	FACU
3. Lolium arundinaceum	20	✔	
4. Vernonia noveboracensis	10		FACW
5. Bidens aristosa	10		FACW
6. Trifolium repens	5		FACU
7. Andropogon virginicus	5		FACU
8. Eupatorium capillifolium	5		FACU
9. Solanum carolinense	5		FACU
10.			
11.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	55	x 3 =	165
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	115 (A)		365 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST IS MET.

SOIL Sampling Point: SP-B099

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/3	90	10YR 4/6	10	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

NO HYDRIC SOIL INDICATORS ARE MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-13

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B100

Investigator(s): P.Meier ; E.Sanchez ; L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.595662 Long: -79.5772004 Datum: WGS 84

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

PFO wetland W-B038b, southwest of Withers Road.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND HYDROLOGY INDICATORS A2, A3, D2, AND D5 ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B100

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	40	✔	FAC
2. Liquidambar styraciflua	40	✔	FAC
3. Liriodendron tulipifera	10		FACU
4. Carpinus caroliniana	10		FAC
5.			
6.			
7.			
	100	= Total Cover	
50% of total cover: 50.00	20% of total cover: 20.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	5	✔	FAC
2. Fraxinus pennsylvanica	5	✔	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10	= Total Cover	
50% of total cover: 5.00	20% of total cover: 2.00		
Herb Stratum (Plot size: 5 ft r)			
1. Commelina communis	30	✔	FAC
2. Carex lurida	20	✔	OBL
3. Bidens aristosa	15		FACW
4. Impatiens capensis	10		FACW
5. Dichanthelium scoparium	10		FACW
6. Cinna arundinacea	10		FACW
7.			
8.			
9.			
10.			
11.			
	95	= Total Cover	
50% of total cover: 47.50	20% of total cover: 19.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	50	x 2 =	100
FAC species	125	x 3 =	375
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	205 (A)		535 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST AND PREVALENCE INDEX ARE MET.

SOIL Sampling Point: SP-B100

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	2.5Y 5/1	90	10YR 4/6	10	C	M	Sandy Clay Loam	
4 - 12	2.5Y 6/1	95	7.5YR 3/4	5	C	M	Sandy Clay Loam	
12 - 20	10YR 5/1	95	10YR 5/8	5	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

HYDRIC SOIL INDICATOR F3 IS MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project NC City/County: Pittsylvania County Sampling Date: 2024-06-14

Applicant/Owner: Mountain Valley Pipeline LLC State: Virginia Sampling Point: SP-B101

Investigator(s): ES, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.5988 Long: -79.5744 Datum: NAD 83

Soil Map Unit Name: 5C3 - Clifford sandy clay loam, 7 to 15 percent slopes, severely eroded NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot representation for W-B039a (PEM) and W-B039b (PFO). The USACE Antecedent Precipitation Tool indicates normal conditions were present 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B101

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	10	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		

50% of total cover: 5 20% of total cover: 2

Herb Stratum (Plot size: 5 ft r)			
1. Poa pratensis	30	✔	FACU
2. Urtica dioica	25	✔	FACU
3. Lonicera japonica	15		FACU
4. Rubus trivialis	10		FACU
5. Bidens aristosa	10		FACW
6. Acer rubrum	10		FAC
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

50% of total cover: 50 20% of total cover: 20

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	20	x 3 =	60
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	110 (A)		400 (B)

Prevalence Index = B/A = 3.63

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B101

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 21	10YR 5/3	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-06-14

Applicant/Owner: Mountain Valley PIPELINE LLC State: Virginia Sampling Point: SP-B104

Investigator(s): P.Meier; E.Sanchez; L.Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR or MLRA): P 136 Lat: 36.6033628 Long: -79.570518 Datum: WGS 84

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

PEM wetland W-B040 along stream S-B044b.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND HYDROLOGY INDICATORS D2 AND D5 ARE MET.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B104

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Salix nigra	10	✔	OBL
2. Fraxinus pennsylvanica	5	✔	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Dichanthelium clandestinum	30	✔	FAC
3. Juncus effusus	10		FACW
4. Bidens aristosa	5		FACW
5. Carex frankii	5		OBL
6. Avena sativa	5		UPL
7. Lolium perenne	5		FACU
8. Carex crinita	5		OBL
9. Persicaria sagittata	5		OBL
10.			
11.			
	110 = Total Cover		
50% of total cover: 55.00	20% of total cover: 22.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	20	x 2 =	40
FAC species	70	x 3 =	210
FACU species	5	x 4 =	20
UPL species	5	x 5 =	25
Column Totals:	125 (A)		320 (B)

Prevalence Index = B/A = 2.56

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

DOMINANCE TEST AND PREVALENCE INDEX ARE MET.

SOIL Sampling Point: SP-B104

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/2	80	10YR 3/6	20	C	M	Sandy Loam	
4 - 12	2.5Y 5/1	80	10YR 4/6	20	C	M	Sandy Loam	
12 - 20	10YR 5/1	80	7.5YR 4/6	20	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

HYDRIC SOIL INDICATOR F3 IS MET.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-21

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B105

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Upland, Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR or MLRA): P 136 Lat: 36.57624942 Long: -79.59834305 Datum: NAD 83

Soil Map Unit Name: 34B - Sheva fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B105

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Rubus argutus	10	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		
50% of total cover: 5.00	20% of total cover: 2.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Vitis rotundifolia	15	✔	FAC
2. Rubus argutus	10	✔	FACU
3.			
4.			
5.			
	25 = Total Cover		
50% of total cover: 12.50	20% of total cover: 5.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	35 (A)		125 (B)

Prevalence Index = B/A = 3.57

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B105

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 3/2	100					Clay Loam	
3 - 6	10YR 4/3	100					Silty Clay Loam	
6 - 18	10YR 5/2	99	5GY 7/2	1	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-21

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B108

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Linear Slope (%): 1-2

Subregion (LRR or MLRA): P 136 Lat: 36.57564561 Long: -79.59873556 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B108

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ulmus alata	10	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10 = Total Cover		

50% of total cover: 5.00 20% of total cover: 2.00

Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium scoparium	25	✔	FACW
2. Arthraxon hispidus	20	✔	FAC
3. Lespedeza cuneata	20	✔	FACU
4. Holcus lanatus	15		FAC
5. Juncus effusus	15		FACW
6. Solanum carolinense	10		FACU
7.			
8.			
9.			
10.			
11.			
	105 = Total Cover		

50% of total cover: 52.50 20% of total cover: 21.00

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	35	x 3 =	105
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	115 (A)		345 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B108

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 3/2	100					Silty Clay Loam	
2 - 6	10YR 4/3	100					Silty Clay Loam	
6 - 20	10YR 5/3	100					Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B109

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2-3

Subregion (LRR or MLRA): P 136 Lat: 36.56863582 Long: -79.61129383 Datum: NAD 83

Soil Map Unit Name: 9B - Lackstown fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators met.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B109

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carya glabra	45	✔	FACU
2. Liquidambar styraciflua	35	✔	FAC
3.			
4.			
5.			
6.			
7.			
	80 = Total Cover		
50% of total cover: 40.00	20% of total cover: 16.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carya glabra	20	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Herb Stratum (Plot size: 5 ft r)			
1. Elymus hystrix	20	✔	UPL
2. Elymus virginicus	15	✔	FACW
3. Lonicera japonica	15	✔	FACU
4. Toxicodendron radicans	15	✔	FAC
5. Rubus argutus	10		FACU
6. Vitis rotundifolia	10		FAC
7. Amphicarpaea bracteata	5		FAC
8. Elephantopus carolinianus	5		FACU
9. Microstegium vimineum	5		FAC
10. Verbesina alternifolia	5		FAC
11.			
	105 = Total Cover		
50% of total cover: 52.50	20% of total cover: 21.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.85 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	75	x 3 =	225
FACU species	95	x 4 =	380
UPL species	20	x 5 =	100
Column Totals:	205 (A)		735 (B)

Prevalence Index = B/A = 3.58

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators met.

SOIL Sampling Point: SP-B109

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 3/3	100					Clay Loam	
3 - 10	10YR 4/4	100					Clay Loam	
10 - 14	10YR 5/4	100					Clay Loam	
14 - 20	10YR 5/2	97	7.5YR 5/6	3	C	M	Clay Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B110

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.5666144 Long: -79.6123867 Datum: NAD 83

Soil Map Unit Name: 29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within W-B049. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B10, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B110

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ligustrum sinense	15	✔	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Onoclea sensibilis	40	✔	FACW
2. Microstegium vimineum	35	✔	FAC
3. Amphicarpaea bracteata	15		FAC
4. Boehmeria cylindrica	10		FACW
5. Smilax rotundifolia	10		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	110 = Total Cover		
50% of total cover: 55.00	20% of total cover: 22.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	60	x 3 =	180
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	125 (A)		340 (B)

Prevalence Index = B/A = 2.72

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B110

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/3	100					Clay Loam	
4 - 15	10YR 5/2	95	5YR 5/6	5	C	M	Clay Loam	
15 - 20	10YR 5/1	97	5YR 5/6	3	C	M	Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B111

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.56663202 Long: -79.61239859 Datum: NAD 83

Soil Map Unit Name: 29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-B049. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B111

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Morus rubra	35	✔	FACU
2. Carya glabra	25	✔	FACU
3. Liquidambar styraciflua	25	✔	FAC
4. Quercus velutina	15		UPL
5.			
6.			
7.			
	100	= Total Cover	
50% of total cover: 50.00	20% of total cover: 20.00		

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Elaeagnus umbellata	25	✔	UPL
2. Cornus florida	15	✔	FACU
3. Fraxinus pennsylvanica	15	✔	FACW
4. Ligustrum sinense	15	✔	FACU
5.			
6.			
7.			
8.			
9.			
	70	= Total Cover	
50% of total cover: 35.00	20% of total cover: 14.00		

Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	60	✔	FAC
2. Amphicarpaea bracteata	15		FAC
3. Asplenium platyneuron	15		FACU
4. Parthenocissus quinquefolia	15		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	105	= Total Cover	
50% of total cover: 52.50	20% of total cover: 21.00		

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 37.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	100	x 3 =	300
FACU species	120	x 4 =	480
UPL species	40	x 5 =	200
Column Totals:	275 (A)		1010 (B)

Prevalence Index = B/A = 3.67

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

No indicators are present.

SOIL Sampling Point: SP-B111

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 4/6	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B112

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.56143867 Long: -79.61324847 Datum: NAD 83

Soil Map Unit Name: 29D - Pinkston-Clover complex, 15 to 35 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within W-B050. Vegetation disturbed by grazing. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ✔	No ____	Depth (inches): 2
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators A2, A3, B9, C3, B10, D2, and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B112

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	35	✔	FAC
2. Acer rubrum	20	✔	FAC
3.			
4.			
5.			
6.			
7.			
	55 = Total Cover		
50% of total cover: 27.50	20% of total cover: 11.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fraxinus pennsylvanica	25	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25 = Total Cover		
50% of total cover: 12.50	20% of total cover: 5.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Scirpus atrovirens	20	✔	OBL
3. Juncus effusus	15		FACW
4. Carex prasina	10		OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
50% of total cover: 42.50	20% of total cover: 17.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	40	x 2 =	80
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	165 (A)		395 (B)

Prevalence Index = B/A = 2.39

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test indicator is met.

SOIL Sampling Point: SP-B112

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10YR 4/2	100					Silty Clay Loam	
4 - 12	10YR 4/1	97	7.5YR 5/8	3	C	M	Silty Clay Loam	
12 - 20	10YR 5/1	95	7.5YR 5/8	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B113

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.56138294 Long: -79.61325304 Datum: NAD 83

Soil Map Unit Name: 29C - Pinkston-Clover complex, 7 to 15 percent slopes, very stony NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to W-B050. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B113

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	35	✔	FAC
2. Liriodendron tulipifera	30	✔	FACU
3.			
4.			
5.			
6.			
7.			
	65	= Total Cover	
50% of total cover: 32.50	20% of total cover: 13.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	25	✔	FAC
2. Prunus serotina	20	✔	FACU
3. Diospyros virginiana	15	✔	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	60	= Total Cover	
50% of total cover: 30.00	20% of total cover: 12.00		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	25	✔	FAC
2. Verbesina alternifolia	25	✔	FAC
3. Galium aparine	20	✔	FACU
4. Amphicarpaea bracteata	15		FAC
5. Microstegium vimineum	15		FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
50% of total cover: 50.00	20% of total cover: 20.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 62.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	155	x 3 =	465
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	225 (A)		745 (B)

Prevalence Index = B/A = 3.31

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test indicator is met.

SOIL Sampling Point: SP-B113

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 3/6	100					Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania County Sampling Date: 2024-08-19

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B118

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR or MLRA): P 136 Lat: 36.8042238 Long: -79.36801 Datum: NAD 83

Soil Map Unit Name: 41A - Hatboro silt loam, 0 to 2 percent slopes, frequently flooded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within W-A010a. Vegetation disturbed by grazing. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators C3, D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B118

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Diodia virginiana	20	✔	FACW
2. Urtica dioica ssp. dioica	15	✔	FACU
3. Vernonia noveboracensis	15	✔	FACW
4. Juncus effusus	10		FACW
5. Cyperus strigosus	5		FACW
6. Setaria pumila	5		FAC
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	5	x 3 =	15
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	70 (A)		175 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B118

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 3/3	100					Sandy Clay Loam	
2 - 10	10YR 4/2	90	5YR 5/6	10	C	M	Sandy Clay Loam	
10 - 20	10YR 5/4	70	5YR 5/6	30	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is met.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B119

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): Lat: 36.7289084 Long: -79.4460863 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	**No** ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PEM W-A030a. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B119

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Boehmeria cylindrica	15	✔	FACW
2. Dichanthelium clandestinum	15	✔	FAC
3. Microstegium vimineum	15	✔	FAC
4. Amphicarpaea bracteata	10	✔	FAC
5. Bidens aristosa	10	✔	FACW
6. Eupatorium perfoliatum	10	✔	FACW
7. Impatiens capensis	10	✔	FACW
8. Vernonia gigantea	10	✔	FAC
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.50	20% of total cover: 19.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		240 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B119

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 5/1	90	7.5YR 5/8	10	C	M	Sandy Clay Loam	
3 - 16	10YR 5/2	85	7.5YR 5/8	15	C	M	Sandy Clay Loam	
16 - 20	2.5Y 5/2	85	7.5YR 5/8	15	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B120

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): P 136 Lat: 36.72065253 Long: -79.45420275 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ✔	No ___
Hydric Soil Present?	Yes ✔	No ___			
Wetland Hydrology Present?	Yes ✔	No ___			

Remarks:

Wetland sample plot within PFO W-A031. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ✔ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators B2, B9, B10 D2 and D5 are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B120

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	30	✔	FAC
2. Platanus occidentalis	30	✔	FACW
3. Carpinus caroliniana	10		FAC
4.			
5.			
6.			
7.			
	70 = Total Cover		
50% of total cover: 35.00	20% of total cover: 14.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Carpinus caroliniana	10	✔	FAC
2. Platanus occidentalis	5	✔	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	40	✔	FAC
2. Toxicodendron radicans	10		FAC
3. Arisaema triphyllum	5		FACW
4. Arundinaria tecta	5		FACW
5. Athyrium asplenioides	5		FAC
6. Boehmeria cylindrica	5		FACW
7. Polystichum acrostichoides	5		FACU
8. Onoclea sensibilis	3		FACW
9.			
10.			
11.			
	78 = Total Cover		
50% of total cover: 39.00	20% of total cover: 15.60		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	53	x 2 =	106
FAC species	105	x 3 =	315
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	163 (A)		441 (B)

Prevalence Index = B/A = 2.70

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✔ 2 - Dominance Test is >50%
- ✔ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test and prevalence index are met.

SOIL Sampling Point: SP-B120

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 5/2	60	7.5YR 5/6	5	C	M	Clay Loam	
0 - 8	10YR 5/4	35					Clay Loam	
8 - 20	10YR 6/1	30	7.5YR 5/6	5	C	M	Clay Loam	
8 - 20	10YR 5/4	65					Clay Loam	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✔ **No** ____

Remarks:

Indicator F3 is present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B121

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Alluvial Flat Local relief (concave, convex, none): Undulating Slope (%): 0-1

Subregion (LRR or MLRA): P 136 Lat: 36.7207421 Long: -79.4540612 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A031. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B121

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	50	✔	FAC
2. Fagus grandifolia	50	✔	FACU
3.			
4.			
5.			
6.			
7.			
	100 = Total Cover		
50% of total cover: 50.00	20% of total cover: 20.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Fagus grandifolia	30	✔	FACU
2. Carpinus caroliniana	15	✔	FAC
3. Acer rubrum	10		FAC
4.			
5.			
6.			
7.			
8.			
9.			
	55 = Total Cover		
50% of total cover: 27.50	20% of total cover: 11.00		
Herb Stratum (Plot size: 5 ft r)			
1. Lonicera japonica	5	✔	FACU
2. Microstegium vimineum	5	✔	FAC
3. Polystichum acrostichoides	5	✔	FACU
4. Smilax rotundifolia	5	✔	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	175 (A)		615 (B)

Prevalence Index = B/A = 3.51

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-B121

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 3/4	100					Silty Clay Loam	
4 - 12	10YR 4/4	100					Silty Clay Loam	
12 - 20	10YR 5/3	90	7.5YR 5/6	10	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-20

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B122

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Upland, Hillslope Local relief (concave, convex, none): Convex Slope (%): 3

Subregion (LRR or MLRA): P 136 Lat: 36.6519574 Long: -79.5221848 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No ✔ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PEM W-A051. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches):_____
Water Table Present?	Yes _____	No ✔	Depth (inches):_____
Saturation Present? (includes capillary fringe)	Yes _____	No ✔	Depth (inches):_____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B122

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	10	✔	FAC
2. Sambucus nigra	10	✔	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20 = Total Cover		
50% of total cover: 10.00	20% of total cover: 4.00		
Herb Stratum (Plot size: 5 ft r)			
1. Smilax rotundifolia	30	✔	FAC
2. Commelina communis	15	✔	FAC
3. Glechoma hederacea	15	✔	FACU
4. Vitis rotundifolia	10		FAC
5. Lonicera japonica	5		FACU
6. Microstegium vimineum	5		FAC
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
50% of total cover: 40.00	20% of total cover: 16.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		320 (B)

Prevalence Index = B/A = 3.20

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance test is passed.

SOIL Sampling Point: SP-B122

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 5/4	100					Sandy Loam	
12 - 20	2.5Y 6/4	90	7.5YR 5/6	10	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-21

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B123

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 0-2

Subregion (LRR or MLRA): P 136 Lat: 36.64528996 Long: -79.52665907 Datum: NAD 83

Soil Map Unit Name: 23C - Clover fine sandy loam, 7 to 15 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland sample plot adjacent to PFO W-A052. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B123

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juniperus virginiana	35	✔	FACU
2. Liquidambar styraciflua	35	✔	FAC
3. Acer rubrum	25	✔	FAC
4. Pinus taeda	15		FAC
5.			
6.			
7.			
	110	= Total Cover	
50% of total cover: 55	20% of total cover: 22		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Liquidambar styraciflua	20	✔	FAC
2. Juniperus virginiana	15	✔	FACU
3. Quercus marilandica	10	✔	UPL
4.			
5.			
6.			
7.			
8.			
9.			
	45	= Total Cover	
50% of total cover: 22.5	20% of total cover: 9		
Herb Stratum (Plot size: 5 ft r)			
1. Dichanthelium clandestinum	20	✔	FAC
2. Asplenium platyneuron	15	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35	= Total Cover	
50% of total cover: 17.5	20% of total cover: 7		
Woody Vine Stratum (Plot size: 30 ft r)			
1. Parthenocissus quinquefolia	25	✔	FACU
2. Toxicodendron radicans	10	✔	FAC
3.			
4.			
5.			
	35	= Total Cover	
50% of total cover: 17.5	20% of total cover: 7		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	125	x 3 =	375
FACU species	90	x 4 =	360
UPL species	10	x 5 =	50
Column Totals:	225 (A)		785 (B)

Prevalence Index = B/A = 3.48

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-B123

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 20	10YR 5/8	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate Project City/County: Pittsylvania Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B124

Investigator(s): Aaron Conley, Lily Cooper Section, Township, Range:

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Convex Slope (%): 0-2

Subregion (LRR or MLRA): P 136 Lat: 36.61394577 Long: -79.562111 Datum: NAD 83

Soil Map Unit Name: 21D - Poplar Forest fine sandy loam, 15 to 25 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot within previous TRC wetland. Vegetation disturbed by use of herbicides. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ✔	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B124

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	30	✔	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Ligustrum sinense	25	✔	FACU
2. Rosa multiflora	15	✔	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	40 = Total Cover		
50% of total cover: 20	20% of total cover: 8		
Herb Stratum (Plot size: 5 ft r)			
1. Phytolacca americana	20	✔	FACU
2. Verbesina alternifolia	20	✔	FAC
3. Amphicarpaea bracteata	15	✔	FAC
4. Microstegium vimineum	15	✔	FAC
5. Rubus argutus	15	✔	FACU
6. Toxicodendron radicans	10		FAC
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	90	x 3 =	270
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	165 (A)		570 (B)

Prevalence Index = B/A = 3.45

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-B124

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 4/4	100					Silty Clay Loam	
2 - 12	10YR 5/4	100					Silty Clay Loam	
12 - 20	5YR 5/8	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVP Southgate City/County: Pittsylvania County Sampling Date: 2024-08-26

Applicant/Owner: Mountain Valley Pipeline, LLC State: Virginia Sampling Point: SP-B125

Investigator(s): AC, LC Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR or MLRA): P 136 Lat: 36.55764204 Long: -79.61769324 Datum: NAD 83

Soil Map Unit Name: 34B - Sheva fine sandy loam, 2 to 7 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	**No ✔**	**Is the Sampled Area within a Wetland?**	Yes ___	No ✔
Hydric Soil Present?	Yes ___	No ✔			
Wetland Hydrology Present?	Yes ___	No ✔			

Remarks:

Upland confirmation plot. The USACE Antecedent Precipitation Tool indicates wetter than normal conditions 3 months prior to survey.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators are present.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-B125

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carya glabra	20	✔	FACU
2. Liquidambar styraciflua	20	✔	FAC
3. Quercus alba	20	✔	FACU
4. Juniperus virginiana	15	✔	FACU
5.			
6.			
7.			
	75	= Total Cover	
50% of total cover: 37.50	20% of total cover: 15.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Cercis canadensis	15	✔	FACU
2. Lonicera maackii	15	✔	UPL
3. Corylus americana	10	✔	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	40	= Total Cover	
50% of total cover: 20.00	20% of total cover: 8.00		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	25	✔	FAC
2. Parthenocissus quinquefolia	20	✔	FACU
3. Ulmus alata	20	✔	FACU
4. Smilax bona-nox	15		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	= Total Cover	
50% of total cover: 40.00	20% of total cover: 16.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	135	x 4 =	540
UPL species	15	x 5 =	75
Column Totals:	195 (A)		750 (B)

Prevalence Index = B/A = 3.84

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

No tests are passed.

SOIL Sampling Point: SP-B125

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 3	10YR 3/3	100					Clay Loam	
3 - 14	10YR 5/4	100					Clay Loam	
14 - 20	10YR 4/6	100					Clay Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

No indicators are present.

Appendix C – Ground Photographs

Photograph C-1: View of sample point (SP) SP-A001 within PEM wetland (W) W-A001, facing southeast.

Photograph C-2: View of SP-A001 within PEM W-A001, facing northwest.

Photograph C-3: View of upland SP-A002 east of W-A001, facing southeast.

Photograph C-4: View of upland SP-A002 east of W-A001, facing northwest.

Photograph C-5: View of upland SP-A003 south of stream (S) S-A002, facing southeast.

Photograph C-6: View of upland SP-A003 south of S-A002, facing northwest.

Photograph C-7: View of upland SP-004 north of S-A002, facing southeast.

Photograph C-8: View of upland SP-A004 north of S-A002, facing northwest.

Photograph C-9: View of upland SP-A005 north of W-A002, facing southeast.

Photograph C-10: View of upland SP-A005 north of W-A002, facing northwest.

Photograph C-11: View of wetland SP-A006 within PFO W-A002, facing southwest.

Photograph C-12: View of wetland SP-A006 within PFO W-A002, facing northeast.

Photograph C-13: View of upland SP-A007 northeast of W-A003a, facing south.

Photograph C-14: View of upland SP-A007 northeast of W-A003a, facing north.

Photograph C-15: View of wetland SP-A008 within PFO W-A003a, facing southeast.

Photograph C-16: View of wetland SP-A008 within PFO W-A003a, facing northwest.

Photograph C-17: View of upland SP-A009 north of S-A005, facing southwest.

Photograph C-18: View of upland SP-A009 north of S-A005, facing northeast.

Photograph C-19: View of wetland SP-A010 within W-A004, facing southwest.

Photograph C-20: View of wetland SP-A010 within W-A004, facing northeast.

Photograph C-21: View of upland SP-A011 within upland island of PEM W-A004, facing west.

Photograph C-22: View of upland SP-A011 within upland island of PEM W-A004, facing east.

Photograph C-23: View of wetland SP-A012 within PEM W-A005, facing southwest.

Photograph C-24: View of wetland SP-A012 within PEM W-A005, facing northeast.

Photograph C-25: View of upland SP-A013 north of W-A005, facing southwest.

Photograph C-26: View of upland SP-A013 north of W-A005, facing northeast.

Photograph C-27: View of wetland SP-A014 within PFO W-A006, facing north.

Photograph C-28: View of wetland SP-A014 within PFO W-A006, facing south.

Photograph C-29: View of upland SP-A015 northeast of W-A006, facing northwest.

Photograph C-30: View of upland SP-A015 northeast of W-A006, facing southeast.

Photograph C-31: View of wetland SP-A016 within PEM W-A003b, facing north.

Photograph C-32: View of wetland SP-A016 within PEM W-A003b, facing northeast.

Photograph C-33: View of wetland SP-A017 within PEM W-A007, facing south.

Photograph C-34: View of wetland SP-017 within PEM W-A007, facing north.

Photograph C-35: View of upland SP-A019 northeast of W-A010b, facing south.

Photograph C-36: View of upland SP-A019 northeast of W-A010b, facing north.

Photograph C-37: View of wetland SP-A020 within PFO W-A010b, facing south.

Photograph C-38: View of wetland SP-A020 within PFO W-A010b, facing north.

Photograph C-39: View of wetland SP-A021 within PSS W-A010c, facing northeast.

Photograph C-40: View of wetland SP-A021 within PSS W-A010c, facing southeast.

Photograph C-41: View of wetland SP-A022 within PFO W-A010b, facing south.

Photograph C-42: View of wetland SP-A022 within PFO W-A010b, facing northeast.

Photograph C-43: View of upland SP-A023 northeast of W-A010a, facing southeast.

Photograph C-44: View of upland SP-A023 northeast of W-A010a, facing northwest.

Photograph C-45: View of wetland SP-A024, on the boundary of PEM W-A010a and PFO W-A010b, facing southwest.

Photograph C-46: View of wetland SP-A024, on the boundary of PEM W-A010a and PFO W-A010b, facing northeast.

Photograph C-47: View of upland SP-A025 northeast of W-A011, facing south.

Photograph C-48: View of upland SP-A025 northeast of W-A011, facing northeast.

Photograph C-49: View of wetland SP-A026 within PEM W-A011, facing south.

Photograph C-50: View of wetland SP-A026 within PEM W-A011, facing northeast.

Photograph C-51: View of upland SP-A027 east of W-A012, facing south.

Photograph C-52: View of upland SP-A027 east of W-A012, facing northeast.

Photograph C-53: View of wetland SP-A028 within PSS W-A012, facing south.

Photograph C-54: View of wetland SP-A028 within PSS W-A012, facing northeast.

Photograph C-55: View of wetland SP-A029 within PSS W-A013b, facing southwest.

Photograph C-56: View of wetland SP-A029 within PSS W-A013b, facing east.

Photograph C-57: View of wetland SP-A030 within PFO W-A013d, facing west.

Photograph C-58: View of wetland SP-A030 within PFO W-A013d, facing northeast.

Photograph C-59: View of upland SP-A031 northeast of W-A013a, facing south.

Photograph C-60: View of upland SP-A031 northeast of W-A013a, facing north.

Photograph C-61: View of wetland SP-A032 within PEM W-A013a, facing south.

Photograph C-62: View of wetland SP-A032 within PEM W-A013a, facing northwest.

Photograph C-63: View of upland SP-A033, facing southeast.

Photograph C-64: View of upland SP-A033, facing northwest.

Photograph C-65: View of upland SP-A034 southwest of W-A014, facing southeast.

Photograph C-66: View of upland SP-A034 southwest of W-A014, facing northwest.

Photograph C-67: View of wetland SP-A035 within PEM W-A014 and representative of PEM W-A016, facing east.

Photograph C-68: View of wetland SP-A035 within PEM W-A014 and representative of PEM W-A016, facing west.

Photograph C-69: View of wetland SP-A036 within PEM W-A015, facing southeast.

Photograph C-70: View of wetland SP-A036 within PEM W-A015, facing northwest.

Photograph C-71: View of upland SP-A037 southwest of W-A015, facing south.

Photograph C-72: View of upland SP-A037 southwest of W-A015, facing northeast.

Photograph C-73: View of wetland SP-A038 within PFO W-A072, facing south.

Photograph C-74: View of wetland SP-A038 within PFO W-A072, facing west.

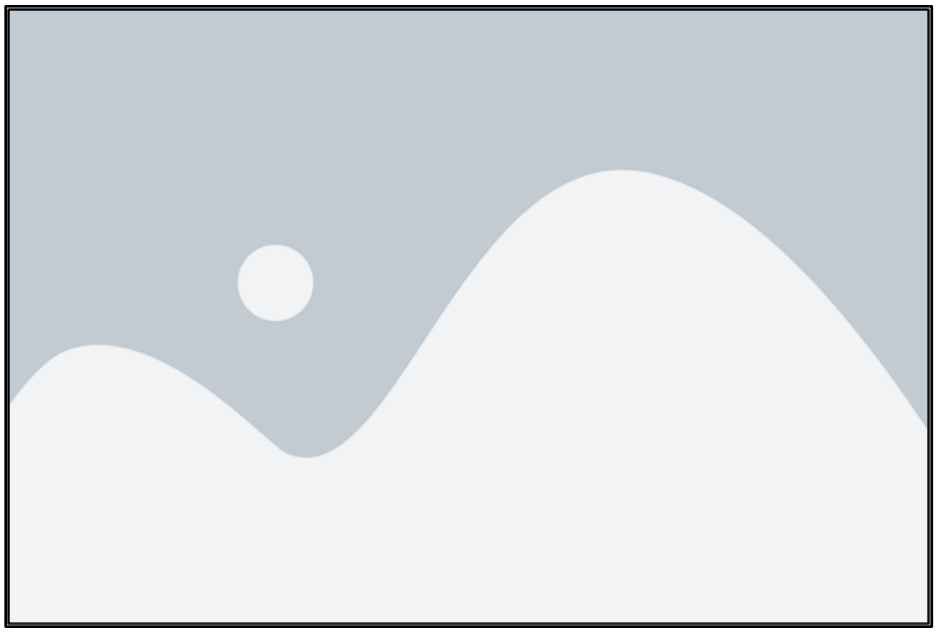
Photograph C-75: View of upland SP-A038a northeast of PFO W-A072, facing south.

Photograph C-76: View of upland SP-A038a northeast of PFO W-A072, facing west.

Photograph C-77: View of upland SP-A039 southeast of W-A017, facing southwest.

Photograph C-78: View of upland SP-A039 southeast of W-A017, facing northeast.

Photograph C-78: View of upland SP-A039a southeast of W-A017, facing southwest.



Photograph C-80: View of upland SP-A039a southeast of W-A017, facing north.

Photograph C-81: View of wetland SP-A040 within PEM W-A017, facing southwest.

Photograph C-82: View of wetland SP-A040 within PEM W-A017, facing northeast.

Photograph C-83: View of wetland SP-A041 within PFO W-A019, facing south.

Photograph C-84: View of wetland SP-A041 within PFO W-A019, facing north.

Photograph C-85: View of upland SP-A042 north of W-A019, facing south.

Photograph C-86: View of upland SP-A042 north of W-A019, facing north.

Photograph C-87: View of wetland SP-A043 within PFO W-A020, facing southwest.

Photograph C-88: View of wetland SP-A043 within PFO W-A020, facing east.

Photograph C-89: View of upland SP-A044 north of W-A020, facing southeast.

Photograph C-90: View of upland SP-A044 north of W-A020, facing northeast.

Photograph C-91: View of wetland SP-A045 within PFO W-A021, facing southwest.

Photograph C-92: View of wetland SP-A045 within PFO W-A021, facing north.

Photograph C-93: View of upland SP-A046 south of W-A021, facing south.

Photograph C-94: View of upland SP-A046 south of W-A021, facing northeast.

Photograph C-95: View of upland SP-A047 southeast of W-A022, facing southeast.

Photograph C-96: View of upland SP-A047 southeast of W-A022, facing northwest.

Photograph C-97: View of wetland SP-A048 within PFO-WA022, facing northeast.

Photograph C-98: View of wetland SP-A048 within PFO-WA022, facing northwest.

Photograph C-99: View of wetland SP-A049 within PFO W-A023, facing northwest.

Photograph C-100: View of wetland SP-A049 within PFO W-A023, facing northeast.

Photograph C101: View of upland SP-A050 east of W-A023, facing south.

Photograph C-102: View of upland SP-A050 east of W-A023, facing north.

Photograph C-103: View of wetland SP-A051 within PSS W-A024, facing southeast.

Photograph C-104: View of wetland SP-A051 within PSS W-A024, facing west.

Photograph C-105: View of upland SP-A052 south of W-A024, facing south.

Photograph C-106: View of upland SP-A052 south of W-A024, facing north.

Photograph C-107: View of wetland SP-053 within PEM W-A025 and adjacent to S-A023, facing southwest.

Photograph C-108: View of wetland SP-053 within PEM W-A025 and adjacent to S-A023, facing southeast.

Photograph C-109: View of upland SP-S054 southeast of W-A025, facing south.

Photograph C-110: View of upland SP-S054 southeast of W-A025, facing northwest.

Photograph C-111: View of upland SP-A055 north of W-A026, facing south.

Photograph C-112: View of upland SP-A055 north of W-A026, facing northwest.

Photograph C-113: View of wetland SP-A056 within PEM W-A026, facing southeast.

Photograph C-114: View of wetland SP-A056 within PEM W-A026, facing southwest.

Photograph C-115: View of wetland SP-A057 within PEM W-A027 and adjacent to S-A027, facing east.

Photograph C-116: View of wetland SP-A057 within PEM W-A027 and adjacent to S-A027, facing northeast.

Photograph C-117: View of upland SP-A058 northwest of W-A027, facing south.

Photograph C-118: View of upland SP-A058 northwest of W-A027, facing east.

Photograph C-119: View of upland SP-A059 northeast of W-A071a and W-A071b, facing south.

Photograph C-120: View of upland SP-A059 northeast of W-A071a and W-A071b, facing north.

Photograph C-121: View of upland SP-A060 northeast of W-A028 and south of S-A-029, facing southeast.

Photograph C-122: View of upland SP-A060 northeast of W-A028 and south of S-A-029, facing north.

Photograph C-123: View of wetland SP-A061 within PFO W-A028, facing west.

Photograph C-124: View of wetland SP-A061 within PFO W-A028, facing northeast.

Photograph C-125: View of upland SP-A062 northeast of W-A029b, facing southwest.

Photograph C-126: View of upland SP-A062 northeast of W-A029b, facing northeast.

Photograph C-127: View of wetland SP-A063 within PFO W-A029b, facing southwest.

Photograph C-128: View of wetland SP-A063 within PFO W-A029b, facing northeast.

Photograph C-129: View of wetland SP-A064 within PEM W-A029a, facing southeast.

Photograph C-130: View of wetland SP-A064 within PEM W-A029a, facing north.

Photograph C-131: View of wetland SP-A065 within PSS W-A030b, facing southeast.

Photograph C-132: View of wetland SP-A065 within PSS W-A030b, facing southwest.

Photograph C-133: View of upland SP-A066 southwest of W-A030a, facing northeast.

Photograph C-134: View of upland SP-A066 southwest of W-A030a, facing northwest.

Photograph C-135: View of wetland SP-A067 within PEM W-A030a, facing east.

Photograph C-136: View of wetland SP-A067 within PEM W-A030a, facing northwest.

Photograph C-137: View of wetland SP-A068 within PFO W-A031 facing northwest.

Photograph C-138: View of wetland SP-A068 within PFO W-A031 facing south.

Photograph C-139: View of upland SP-A069 adjacent to W-A031, facing southeast.

Photograph C-140: View of upland SP-A069 adjacent to W-A031, facing northwest.

Photograph C-141: View of upland SP-A070 northeast of W-A033, facing north.

Photograph C-142: View of upland SP-A070 northeast of W-A033, facing south.

Photograph C-143: View of wetland SP-A071 within PFO W-A033, facing south.

Photograph C-144: View of wetland SP-A071 within PFO W-A033, facing south.

Photograph C-145: View of wetland SP-A072 within PFO W-A034, facing southwest.

Photograph C-146: View of wetland SP-A072 within PFO W-A034, facing northeast.

Photograph C-147: View of upland SP-A073 west of W-A034, facing southeast.

Photograph C-148: View of upland SP-A073 west of W-A034, facing northwest.

Photograph C-149: View of wetland SP-A074 within PSS W-A035 and adjacent to S-A034, facing northeast.

Photograph C-150: View of wetland SP-A074 within PSS W-A035 and adjacent to S-A034, facing southwest.

Photograph C-151: View of upland SP-A075 north of W-A035, facing southwest.

Photograph C-152: View of upland SP-A075 north of W-A035, facing northeast.

Photograph C-153: View of wetland SP-A076 within PSS W-A036, facing south.

Photograph C-154: View of wetland SP-A076 within PSS W-A036, facing south.

Photograph C-155: View of upland SP-A077 south of W-A036, facing south.

Photograph C-156: View of upland SP-A077 south of W-A036, facing north.

Photograph C-157: View of upland SP-A078 north of S-A036 facing south.

Photograph C-158: View of upland SP-A078 north of S-A036 facing north.

Photograph C-159: View of wetland SP-A079 within PEM W-A037, facing south.

Photograph C-160: View of wetland SP-A079 within PEM W-A037, facing north.

Photograph C-161: View of upland SP-A080 west of W-A037 and S-A040, facing south.

Photograph C-162: View of upland SP-A080 west of W-A037 and S-A040, facing north.

Photograph C-163: View of wetland SP-A081 within PSS W-A038, facing south.

Photograph C-164: View of wetland SP-A081 within PSS W-A038, facing north.

Photograph C-165: View of upland SP-A082 southeast of W-A038, facing south.

Photograph C-166: View of upland SP-A082 southeast of W-A038, facing north.

Photograph C-167: View of wetland SP-A083 within PFO W-A039 and adjacent to S-A043, facing south.

Photograph C-168: View of wetland SP-A083 within PFO W-A039 and adjacent to S-A043, facing north.

Photograph C-169: View of upland SP-A084 south of W-A039, facing north.

Photograph C-170: View of upland SP-A084 south of W-A039, facing south.

Photograph C-171: View of wetland SP-A085 within PEM W-A040, facing south.

Photograph C-172: View of wetland SP-A085 within PEM W-A040, facing north.

Photograph C-173: View of upland SP-A086a north of W-A040, facing northeast.

Photograph C-174: View of upland SP-A086a north of W-A040, facing southwest.

Photograph C-175: View of wetland SP-A087 within PFO W-A041, facing east.

Photograph C-176: View of wetland SP-A087 within PFO W-A041, facing west.

Photograph C-177: View of upland SP-A088 northeast of W-A041, facing east.

Photograph C-178: View of upland SP-A088 northeast of W-A041, facing west.

Photograph C-179: View of wetland SP-A089 within PEM W-A042 and representative of W-A043, facing east.

Photograph C-180: View of wetland SP-A089 within PEM W-A042 and representative of W-A043, facing west.

Photograph C-181: View of upland SP-A090 west of W-A043 and W-A042, facing east.

Photograph C-182: View of upland SP-A090 west of W-A043 and W-A042, facing west.

Photograph C-183: View of wetland SP-A091 within PFO W-A045 and representative of PFO W-A044, facing southwest.

Photograph C-184: View of wetland SP-A091 within PFO W-A045 and representative of PFO W-A044, facing northeast.

Photograph C-185: View of upland SP-A092 northeast of W-A045 and south of W-A044, facing southwest.

Photograph C-186: View of upland SP-A092 northeast of W-A045 and south of W-A044, facing northeast.

Photograph C-187: View of wetland SP-A093 within PEM W-A046, facing southwest.

Photograph C-188: View of wetland SP-A093 within PEM W-A046, facing northeast.

Photograph C-189: View of upland SP-A094 north of W-A046, facing northeast.

Photograph C-190: View of upland SP-A094 north of W-A046, facing northwest.

Photograph C-191: View of wetland SP-A095 within PEM W-A047, facing north.

Photograph C-192: View of wetland SP-A095 within PEM W-A047, facing south.

Photograph C-193: View of upland SP-A096 east of W-A047, facing southeast.

Photograph C-194: View of upland SP-A096 east of W-A047, facing northwest.

Photograph C-195: View of upland SP-A096a south of W-A047, facing northwest.

Photograph C-196: View of upland SP-A096a south of W-A047, facing southeast.

Photograph C-197: View of upland confirmation SP-A097, facing northeast.

Photograph C-198: View of upland confirmation SP-A097, facing southwest.

Photograph C-199: View of wetland SP-A098 within PFO W-A048, facing south.

Photograph C-200: View of wetland SP-A098 within PFO W-A048, facing west.

Photograph C-201: View of upland SP-A099 south of W-A048, facing east.

Photograph C-202: View of upland SP-A099 south of W-A048, facing west.

Photograph C-203: View of wetland SP-A100 within PFO W-A049a, facing southwest.

Photograph C-204: View of wetland SP-A100 within PFO W-A049a, facing northeast.

Photograph C-205: View of upland SP-A101 north of W-A049a, facing south.

Photograph C-206: View of upland SP-A101 north of W-A049a, facing north.

Photograph C-207: View of wetland SP-A102 within PEM W-A049b, facing east.

Photograph C-208: View of wetland SP-A102 within PEM W-A049b, facing west.

Photograph C-209: View of wetland SP-A103 within PEM W-A051, facing northeast.

Photograph C-210: View of wetland SP-A103 within PEM W-A051, facing southwest.

Photograph C-211: View of upland SP-A104 northwest of W-A051, facing southeast.

Photograph C-212: View of upland SP-A104 northwest of W-A051, facing northwest.

Photograph C-213: View of wetland SP-A105 within PSS W-A052a, facing southeast.

Photograph C-214: View of wetland SP-A105 within PSS W-A052a, facing northwest.

Photograph C-215: View of wetland SP-A106 within PFO W-A052c, facing southeast.

Photograph C-216: View of wetland SP-A106 within PFO W-A052c, facing northeast.

Photograph C-217: View of wetland SP-A107 within PEM W-A052b, facing east.

Photograph C-218: View of wetland SP-A107 within PEM W-A052b, facing northeast.

Photograph C-219: View of wetland SP-A108 within PEM W-A054, facing west.

Photograph C-220: View of wetland SP-A108 within PEM W-A054, facing east.

Photograph C-221: View of upland SP-A109 south of W-A054, facing northeast.

Photograph C-222: View of upland SP-A109 south of W-A054, facing southwest.

Photograph C-223: View of wetland SP-A121 within PEM W-A061, facing southeast.

Photograph C-224: View of wetland SP-A121 within PEM W-A061, facing northwest.

Photograph C-225: View of upland SP-A122 west of W-A061, facing southwest.

Photograph C-226: View of upland SP-A122 west of W-A061, facing east.

Photograph C-227: View of wetland SP-A123 within PEM W-A062, facing east.

Photograph C-228: View of wetland SP-A123 within PEM W-A062, facing northwest.

Photograph C-229: View of upland SP-A124 southwest of W-A062, facing south.

Photograph C-230: View of upland SP-A124 southwest of W-A062, facing north.

Photograph C-231: View of wetland SP-A125 within PEM W-A063, facing southeast.

Photograph C-232: View of wetland SP-A125 within PEM W-A063, facing northwest.

Photograph C-233: View of upland SP-A126 east of W-A063, facing east.

Photograph C-234: View of upland SP-A126 east of W-A063, facing northwest.

Photograph C-235: View of upland SP-A127 west of W-A064, facing south.

Photograph C-236: View of upland SP-A127 west of W-A064, facing north.

Photograph C-237: View of wetland SP-A128 within PFO W-A064, facing southwest.

Photograph C-238: View of wetland SP-A128 within PFO W-A064, facing north.

Photograph C-239: View of wetland SP-A129 within PEM W-A065, representative of PEM W-A066 and PEM W-A067, facing southwest.

Photograph C-240: View of wetland SP-A129 within PEM W-A065, representative of PEM W-A066 and PEM W-A067, facing north.

Photograph C-241: View of upland SP-A130 adjacent to W-A065, W-A066, and W-A067, facing southwest.

Photograph C-242: View of upland SP-A130 adjacent to of W-A065, W-A066, and W-A067, facing northeast.

Photograph C-243: View of wetland SP-A131 within PEM W-A068, facing southeast.

Photograph C-244: View of wetland SP-A131 within PEM W-A068, facing north.

Photograph C-245: View of upland SP-A132 south of W-A068, facing south.

Photograph C-246: View of upland SP-A132 south of W-A068, facing north.

Photograph C-247: View of wetland SP-A133 within PFO W-A069 and representative of W-A070c, facing west.

Photograph C-248: View of wetland SP-A133 within PFO W-A069 and representative of W-A070c, facing southeast.

Photograph C-249: View of upland SP-A134 southwest of W-A069, facing south.

Photograph C-250: View of upland SP-A134 southwest of W-A069, facing northwest.

Photograph C-251: View of upland SP-A135 northeast of W-A070a and southwest of W-A070b, facing southwest.

Photograph C-252: View of upland SP-A135 northeast of W-A070a and southwest of W-A070b, facing northeast.

Photograph C-253: View of wetland SP-A136 within PEM W-A070a, representative of PEM W-A070b and PEM W-A032, facing southwest.

Photograph C-254: View of wetland SP-A136 within PEM W-A070a, representative of PEM W-A070b and PEM W-A032, facing northeast.

Photograph C-255: View of wetland SP-A137 within PSS W-A071b and adjacent to S-A059, facing southwest.

Photograph C-256: View of wetland SP-A137 within PSS W-A071b and adjacent to S-A059, facing northwest.

Photograph C-257: View of wetland SP-A138 within PEM W-A071a, facing east.

Photograph C-258: View of wetland SP-A138 within PEM W-A071a, facing west.

Photograph C-259: View of wetland SP-A141 within PEM W-A079, facing northeast.

Photograph C-260: View of wetland SP-A141 within PEM W-A079, facing northwest.

Photograph C-261: View of upland SP-A142 east of PEM W-A079, facing northeast.

Photograph C-262: View of upland SP-A142 east of PEM W-A079, facing northwest.

Photograph C-263: View of upland SP-A143 north of PEM W-A008, facing northwest.

Photograph C-264: View of upland SP-A143 north of PEM W-A008, facing southwest.

Photograph C-265: View of wetland SP-A144 within PEM W-A075, facing southwest.

Photograph C-266: View of wetland SP-A144 within PEM W-A075, facing northeast.

Photograph C-267: View of upland SP-A145 north of PEM W-A075, facing northwest.

Photograph C-268: View of upland SP-A145 north of PEM W-A075, facing southeast.

Photograph C-269: View of upland SP-A146 northwest of PEM W-A049b, facing east.

Photograph C-270: View of upland SP-A146 northwest of PEM W-A049b, facing west.

Photograph C-271: View of upland SP-A147 east of PEM W-A048, facing east.

Photograph C-272: View of upland SP-A147 east of PEM W-A048, facing west.

Photograph C-273: View of upland confirmation plot SP-A149, facing southwest.

Photograph C-274: View of upland confirmation plot SP-A149, facing northeast.

Photograph C-275: View of wetland SP-A150 within PEM W-A076, facing west.

Photograph C-276: View of wetland SP-A150 within PEM W-A076, facing east.

Photograph C-277: View of upland SP-A151 south of W-A076, facing northeast.

Photograph C-278: View of upland SP-A151 south of W-A076, facing southwest.

Photograph C-279: View of wetland SP-A152 within PFO W-A022, facing west.

Photograph C-280: View of wetland SP-A152 within PFO W-A022, facing east.

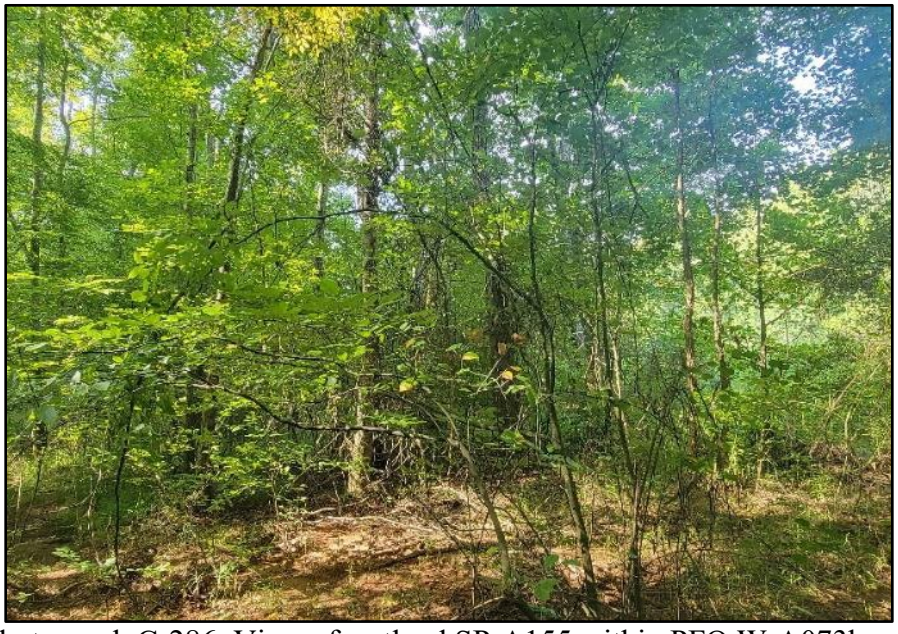
Photograph C-281: View of upland confirmation plot SP-A153, facing northwest.

Photograph C-282: View of upland confirmation plot SP-A153, facing southeast.

Photograph C-283: View of wetland SP-A154 within PFO W-A022, facing west.

Photograph C-284: View of wetland SP-A154 within PFO W-A022, facing east.

Photograph C-285: View of wetland SP-A155 within PFO W-A073b, facing north.



Photograph C-286: View of wetland SP-A155 within PFO W-A073b, facing south.

Photograph C-287: View of upland SP-A156 north of PFO W-A073b, facing northwest.

Photograph C-288: View of upland SP-A156 north of PFO W-A073b, facing northeast.

Photograph C-289: View of wetland SP-A157 within PEM W-A073a, facing north.

Photograph C-290: View of wetland SP-A157 within PEM W-A073a, facing south.

Photograph C-291: View of wetland SP-A167 within PEM W-A078, facing east.

Photograph C-292: View of wetland SP-A167 within PEM W-A078, facing west.

Photograph C-293: View of upland SP-A168 northeast of PEM W-A078, facing west.

Photograph C-294: View of wetland SP-A168 northeast of PEM W-A078, facing east.

Photograph C-295: View of wetland SP-B027 within PEM W-B013a, facing northeast.

Photograph C-296: View of wetland SP-B027 within PEM W-B013a, facing southwest.

Photograph C-297: View of upland SP-B028 west of PEM W-B013a, facing southwest.

Photograph C-298: View of upland SP-B028 west of PEM W-B013a, facing northeast.

Photograph C-299: View of wetland SP-B029 within PFO W-B013b, facing southeast.

Photograph C-300: View of wetland SP-B029 within PFO W-B013b, facing northwest.

Photograph C-301: View of upland SP-B030 southwest of W-B013b, facing southeast.

Photograph C-302: View of upland SP-B030 southwest of W-B013b, facing northwest.

Photograph C-303: View of wetland SP-B031 within PFO W-B014 and adjacent to S-B020, facing northwest.

Photograph C-304: View of wetland SP-B031 within PFO W-B014 and adjacent to S-B020, facing southeast.

Photograph C-305: View of upland SP-B032 east of W-B014 and S-B020, facing southeast.

Photograph C-306: View of upland SP-B032 east of W-B014 and S-B020, facing northwest.

Photograph C-307: View of wetland SP-B033 within PFO W-B015 and adjacent to S-B052, facing northwest.

Photograph C-308: View of wetland SP-B033 within PFO W-B015 and adjacent to S-B052, facing southeast.

Photograph C-309: View of upland SP-B034 south of W-B015 and adjacent to S-B052, facing northwest.

Photograph C-310: View of upland SP-B034 south of W-B015 and adjacent to S-B052, facing southeast.

Photograph C-311: View of wetland SP-B035 within PFO W-B016, facing north.

Photograph C-312: View of wetland SP-B035 within PFO W-B016, facing south.

Photograph C-313: View of upland SP-B036 east of W-B016, facing northeast.

Photograph C-314: View of upland SP-B036 east of W-B016, facing southwest.

Photograph C-315: View of wetland SP-B037 within PEM W-B017, facing south.

Photograph C-316: View of wetland SP-B037 within PEM W-B017, facing north.

Photograph C-317: View of upland SP-B038 adjacent to W-B017, facing north.

Photograph C-318: View of upland SP-B038 adjacent to W-B017, facing south.

Photograph C-319: View of wetland SP-B039 within PFO W-B018, facing east.

Photograph C-320: View of wetland SP-B039 within PFO W-B018, facing south.

Photograph C-321: View of upland SP-B040 west of PFO W-B018, facing south.

Photograph C-322: View of wetland SP-B040 west of PFO W-B018, facing north.

Photograph C-323: View of wetland SP-B041 within PEM W-B019, facing east.

Photograph C-324: View of wetland SP-B041 within PEM W-B019, facing north.

Photograph C-325: View of upland SP-B042 south of W-B019, facing northeast.

Photograph C-326: View of upland SP-B042 south of W-B019, facing southeast.

Photograph C-327: View of wetland SP-B043 within PSS W-B020, facing northeast.

Photograph C-328: View of wetland SP-B043 within PSS W-B020, facing southwest.

Photograph C-329: View of upland SP-B044 west of PSS W-B020, facing northeast.

Photograph C-330: View of upland SP-B044 west of PSS W-B020, facing southwest.

Photograph C-331: View of upland drainage feature SP-B045, facing south.

Photograph C-332: View of upland drainage feature SP-B045, facing north.

Photograph C-333: View of upland SP-B046 north of W-B021, facing southeast.

Photograph C-334: View of upland SP-B046 north of W-B021, facing northwest.

Photograph C-335: View of wetland SP-B047 within PFO W-B021, facing northwest.

Photograph C-336: View of wetland SP-B047 within PFO W-B021, facing southeast.

Photograph C-337: View of wetland SP-B048 within PFO W-B022, facing northwest.

Photograph C-338: View of wetland SP-B048 within PFO W-B022, facing southeast.

Photograph C-339: View of upland SP-B049 north of W-B022, facing north.

Photograph C-340: View of upland SP-B049 north of W-B022, facing south.

Photograph C-341: View of upland SP-B049a adjacent to W-B022, facing east.

Photograph C-342: View of upland SP-B049a adjacent to W-B022, facing west.

Photograph C-343: View of upland SP-B050 south of W-B023, facing southeast.

Photograph C-344: View of upland SP-B050 south of W-B023, facing northwest.

Photograph C-345: View of wetland SP-B051 within PFO W-B023, facing northwest.

Photograph C-346: View of wetland SP-B051 within PFO W-B023, facing southeast.

Photograph C-347: View of upland SP-B052 north of W-B025, facing southeast.

Photograph C-348: View of upland SP-B052 north of W-B025, facing northwest.

Photograph C-349: View of upland confirmation plot SP-B052a, facing north.

Photograph C-350: View of upland SP-B052 north of W-B025, facing northwest.

Photograph C-351: View of wetland SP-B053 within PEM W-B025, facing northwest.

Photograph C-352: View of wetland SP-B053 within PEM W-B025, facing southeast.

Photograph C-353: View of upland SP-B054 west of W-B026, facing northwest.

Photograph C-354: View of upland SP-B054 west of W-B026, facing southeast.

Photograph C-355: View of wetland SP-B055 within PFO W-B026, facing northwest.

Photograph C-356: View of wetland SP-B055 within PFO W-B026, facing southeast.

Photograph C-357: View of wetland SP-B071 within PFO W-B035 and adjacent to S-B038, facing northwest.

Photograph C-358: View of wetland SP-B071 within PFO W-B035 and adjacent to S-B038, facing northeast.

Photograph C-359: View of upland SP-B072 northwest of W-B035 and north of S-B038, facing west.

Photograph C-360: View of upland SP-B072 northwest of W-B035 and north of S-B038, facing east.

Photograph C-361: View of wetland SP-B073a within PEM W-B054, facing east.

Photograph C-362: View of wetland SP-B073a within PEM W-B054, facing north.

Photograph C-363: View of upland SP-B073b west of PEM W-B054, facing northwest.

Photograph C-364: View of upland SP-B073b west of PEM W-B054, facing southeast.

Photograph C-365: View of upland SP-B074 east of W-B036b, facing northwest.

Photograph C-366: View of upland SP-B074 east of W-B036b, facing southeast.

Photograph C-367: View of wetland SP-B075 within PEM W-B036b and representative of PEM W-B024, facing west.

Photograph C-368: View of wetland SP-B075 within PEM W-B036b and representative of PEM W-B024, facing northeast.

Photograph C-369: View of wetland SP-B076 within PFO W-B036a and adjacent to S-B040, facing west.

Photograph C-370: View of wetland SP-B076 within PFO W-B036a and adjacent to S-B040, facing east.

Photograph C-371: View of wetland SP-B077 within PEM W-B037a, facing west.

Photograph C-372: View of wetland SP-B077 within PEM W-B037a, facing east.

Photograph C-373: View of wetland SP-B078 within PFO W-B037b, facing southeast.

Photograph C-374: View of wetland SP-B078 within PFO W-B037b, facing northwest.

Photograph C-375: View of upland SP-B079 northeast of PEM W-B037a, facing northeast.

Photograph C-376: View of upland SP-B079 northeast of PEM W-B037a, facing southwest.

Photograph C-377: View of wetland SP-B080 within PFO W-B039b, facing east.

Photograph C-378: View of wetland SP-B080 within PFO W-B039b, facing west.

Photograph C-379: View of wetland SP-B081 within PEM W-B039a, facing north.

Photograph C-380: View of wetland SP-B081 within PEM W-B039a, facing west.

Photograph C-381: View of wetland SP-B081a within PEM W-B039a, facing north.

Photograph C-382: View of wetland SP-B081a within PEM W-B039a, facing west.

Photograph C-383: View of wetland SP-B082 within PSS W-B041 and adjacent to S-B044a, facing northwest.

Photograph C-384: View of wetland SP-B082 within PSS W-B041 and adjacent to S-B044a, facing southeast.

Photograph C-385: View of upland SP-B083 west of W-B041, facing northwest.

Photograph C-386: View of upland SP-B083 west of W-B041, facing southeast.

Photograph C-387: View of upland SP-B084 north of W-B042 and S-B045, facing north.

Photograph C-388: View of upland SP-B084 north of W-B042 and S-B045, facing northwest.

Photograph C-389: View of wetland SP-B085 within PEM W-B042 and adjacent to S-B045, facing south.

Photograph C-390: View of wetland SP-B085 within PEM W-B042 and adjacent to S-B045, facing southeast.

Photograph C-391: View of upland SP-B086 south of W-B043 and S-B046, facing east.

Photograph C-392: View of upland SP-B086 south of W-B043 and S-B046, facing south.

Photograph C-393: View of wetland SP-B087 within PFO W-B043, facing east.

Photograph C-394: View of wetland SP-B087 within PFO W-B043, facing west.

Photograph C-395: View of upland SP-B088 southwest of W-B044, facing north.

Photograph C-396: View of upland SP-B088 southwest of W-B044, facing east.

Photograph C-397: View of wetland SP-B088a within PEM W-B044, facing east.

Photograph C-398: View of wetland SP-B088a within PEM W-B044, facing west.

Photograph C-399: View of wetland SP-B089 within PEM W-B044, facing south.

Photograph C-400: View of wetland SP-B089 within PEM W-B044, facing north.

Photograph C-401: View of wetland SP-B098, within PEM W-B038a and representative of W-B038c, facing northeast.

Photograph C-402: View of wetland SP-B098, within PEM W-B038a and representative of W-B038c, facing south.

Photograph C-403: View of upland SP-B099 adjacent to W-B038a, W-B038b, and W-B038c, facing northeast.

Photograph C-404: View of upland SP-B099 adjacent to W-B038a, W-B038b, and W-B038c, facing southwest.

Photograph C-405: View of wetland SP-B100 within PFO W-B038b, facing northeast.

Photograph C-406: View of wetland SP-B100 within PFO W-B038b, facing southwest.

Photograph C-407: View of upland SP-B101 adjacent to PEM W-B039a and PFO W-B039b, facing east.

Photograph C-408: View of upland SP-B101 adjacent to PEM W-B039a and PFO W-B039b, facing west.

Photograph C-409: View of wetland SP-B104 within PEM W-B040, facing northwest.

Photograph C-410: View of wetland SP-B104 within PEM W-B040, facing southeast.

Photograph C-411: View of upland confirmation plot SP-B105, facing northeast.

Photograph C-412: View of upland confirmation plot SP-B105, facing southwest.

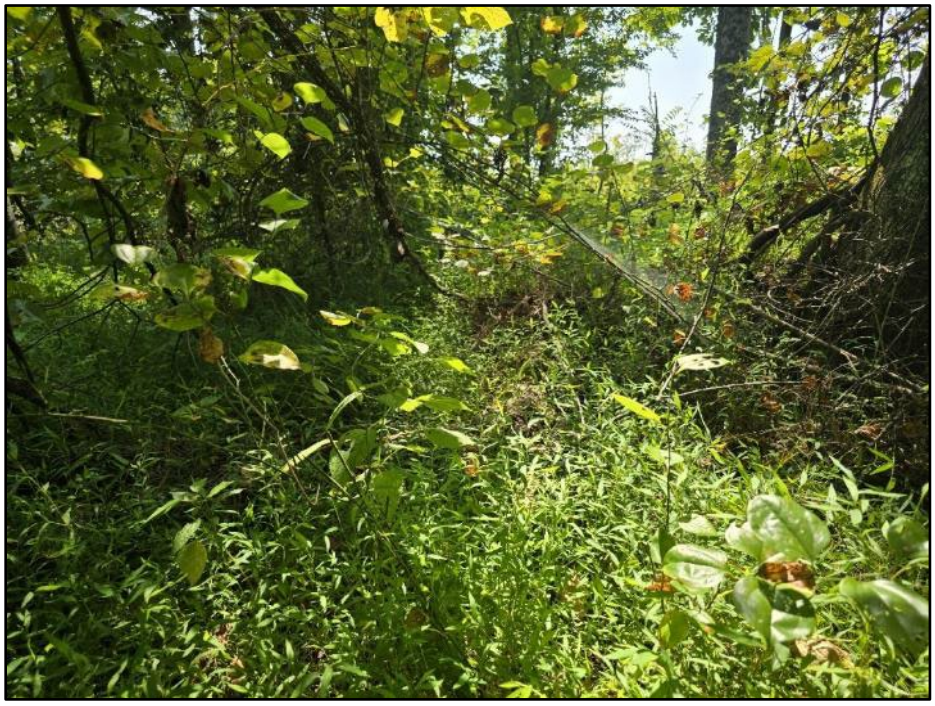
Photograph C-413: View of upland confirmation plot SP-B108, facing east.

Photograph C-414: View of upland confirmation plot SP-B108, facing west.

Photograph C-415: View of upland confirmation plot SP-B109, facing northwest.

Photograph C-416: View of upland confirmation plot SP-B109, facing southeast.

Photograph C-417: View of wetland SP-B110 within PFO W-B049, facing northwest.



Photograph C-418: View of wetland SP-B110 within PFO W-B049, facing south.

Photograph C-419: View of upland SP-B111 north of PFO W-B049, facing northwest.

Photograph C-420: View of upland SP-B111 north of PFO W-B049, facing south.

Photograph C-421: View of wetland SP-B112 within PEM W-B050, facing northwest.

Photograph C-422: View of wetland SP-B112 within PEM W-B050, facing southeast.

Photograph C-423: View of upland SP-B113 west of PFO W-B050, facing northwest.

Photograph C-424: View of upland SP-B113 west of PFO W-B050, facing southeast.

Photograph C-425: View of wetland SP-B118 within PEM W-A010a, facing northeast.

Photograph C-426: View of wetland SP-B118 within PEM W-B010a, facing southwest.

Photograph C-427: View of wetland SP-B119 within PEM W-A030a, facing northwest.

Photograph C-428: View of wetland SP-B118 within PEM W-B030a, facing southeast.

Photograph C-429: View of wetland SP-B120 within PFO W-A031, facing east.

Photograph C-430: View of wetland SP-B120 within PFO W-A031, facing west.

Photograph C-431: View of upland SP-B121 north of PFO W-A031, facing southeast.

Photograph C-432: View of upland SP-B121 north of PFO W-A031, facing west.

Photograph C-433: View of upland SP-B122 northwest of PEM W-A051, facing northwest.

Photograph C-434: View of upland SP-B122 northwest of PFO W-A051, facing southeast.

Photograph C-435: View of upland SP-B123 southwest of PEM W-A052c, facing north.

Photograph C-436: View of upland SP-B123 southwest of PEM W-A052c, facing southwest.

Photograph C-437: View of upland confirmation plot SP-B124, facing east.

Photograph C-438: View of upland confirmation plot SP-B124, facing west.

Photograph C-439: View of PEM W-A016, facing east.

Photograph C-440: View of PEM W-A016, facing southwest.

Photograph C-441: View of PFO W-A044, facing southeast.

Photograph C-442: View of PFO W-A044, facing southwest.

Photograph C-443: View of PEM W-A066, facing northeast.

Photograph C-444: View of PEM W-A066, facing southwest.

Photograph C-445: View of PEM W-A067, facing northeast.

Photograph C-446: View of PEM W-A067, facing southwest.

Photograph C-447: View of PFO W-A070c, facing northeast.

Photograph C-448: View of PFO W-A070c, facing southwest.

Photograph C-449: View of PEM W-B024, facing northwest.

Photograph C-450: View of upland confirmation plot, SP-B125, facing northwest.

Photograph C-451: View of upland confirmation plot, SP-B125, facing southeast.

Photograph C-452: View of open water (PUB) feature OW-A001, facing southeast.

Photograph C-453: View of open water (PUB) feature OW-A001, facing northwest.

Photograph C-454: View of open water (PUB) feature OW-A002, facing south.

Photograph C-455: View of open water (PUB) feature OW-A002, facing northwest.

Photograph C-456: View of open water (PUB) feature OW-A003, facing south.

Photograph C-457: View of open water (PUB) feature OW-A003, facing northwest.

Photograph C-458: View of open water OW-B004, facing east.

Photograph C-459: View of open water OW-B004, facing north.

Photograph C-460: View of intermittent S-A001, facing northwest.

Photograph C-461: View of intermittent S-A001, facing southeast.

Photograph C-462: View of intermittent S-A002, facing west.

Photograph C-463: View of intermittent S-A002, facing east.

Photograph C-464: View of intermittent S-A003, facing south.

Photograph C-465: View of intermittent S-A003, facing north.

Photograph C-466: View of perennial S-A004, facing south.

Photograph C-467: View of perennial S-A004, facing north.

Photograph C-468: View of intermittent S-A005, facing west.

Photograph C-469: View of intermittent S-A005, facing east.

Photograph C-470: View of ephemeral S-A006, facing southwest.

Photograph C-471: View of ephemeral S-A006, facing northeast.

Photograph C-472: View of intermittent S-A007a, facing north.

Photograph C-473: View of intermittent S-A007b, facing south.

Photograph C-474: View of perennial S-A008, Cherrystone Creek, facing east.

Photograph C-475: View of perennial S-A008, Cherrystone Creek, facing west.

Photograph C-476: View of intermittent S-A009, facing west.

Photograph C-477: View of intermittent S-A009, facing southeast.

Photograph C-478: View of ephemeral S-A010, facing north.

Photograph C-479: View of ephemeral S-A010, facing south.

Photograph C-480: View of ephemeral S-A011, facing north.

Photograph C-481: View of ephemeral S-A011, facing south.

Photograph C-482: View of intermittent S-A012, facing northwest.

Photograph C-483: View of intermittent S-A012, facing southeast.

Photograph C-484: View of ephemeral S-A013, facing southeast.

Photograph C-485: View of ephemeral S-A013, facing northwest.

Photograph C-486: View of ephemeral S-A014, facing east.

Photograph C-487: View of ephemeral S-A014, facing west.

Photograph C-488: View of ephemeral S-A015, facing northwest.

Photograph C-489: View of ephemeral S-A015, facing southeast .

Photograph C-490: View of intermittent S-A016, facing northwest.

Photograph C-491: View of intermittent S-A016, facing southeast.

Photograph C-492: View of intermittent S-A017, facing north.

Photograph C-493: View of intermittent S-A017, facing southeast.

Photograph C-494: View of intermittent S-A018, facing northeast.

Photograph C-495: View of intermittent S-A018, facing northwest.

Photograph C-496: View of intermittent S-A019, facing east.

Photograph C-497: View of intermittent S-A019, facing west.

Photograph C-498: View of perennial S-A020, Bannister River, facing east.

Photograph C-499: View of perennial S-A020, Bannister River, facing west.

Photograph C-500: View of perennial S-A021, White Oak Creek, facing northeast.

Photograph C-501: View of perennial S-A021, White Oak Creek, facing southwest.

Photograph C-502: View of perennial S-A022, White Oak Creek, facing north.

Photograph C-503 View of perennial S-A022, White Oak Creek, facing south.

Photograph C-504: View of intermittent S-A023, facing southeast.

Photograph C-505: View of intermittent S-A023, facing west.

Photograph C-506: View of intermittent S-A024, facing north.

Photograph C-507: View of intermittent S-A024, facing southeast.

Photograph C-508: View of intermittent S-A025, facing northwest.

Photograph C-509: View of intermittent S-A025, facing southeast.

Photograph C-510: View of perennial S-A026, facing northwest.

Photograph C-511: View of perennial S-A026, facing southeast.

Photograph C-512: View of intermittent S-A027, facing northeast.

Photograph C-513: View of intermittent S-A027, facing southwest.

Photograph C-514: View of ephemeral S-A028, facing northwest.

Photograph C-515: View of ephemeral S-A028, facing southeast.

Photograph C-516: View of perennial S-A029, facing northwest.

Photograph C-517: View of perennial S-A029, facing southeast.

Photograph C-518: View of ephemeral S-A030, facing northwest.

Photograph C-519: View of ephemeral S-A030, facing southeast.

Photograph C-520: View of perennial S-A031, which appears to have beaver activity, facing northwest.

Photograph C-521: View of perennial S-A031, which appears to have beaver activity, facing southeast.

Photograph C-522: View of intermittent S-A032, facing north.

Photograph C-523: View of intermittent S-A032, facing south.

Photograph C-524: View of perennial S-A033, facing southwest.

Photograph C-525: View of perennial S-A033, facing northeast.

Photograph C-526: View of intermittent S-A034, facing northeast.

Photograph C-527: View of intermittent S-A034, facing southwest.

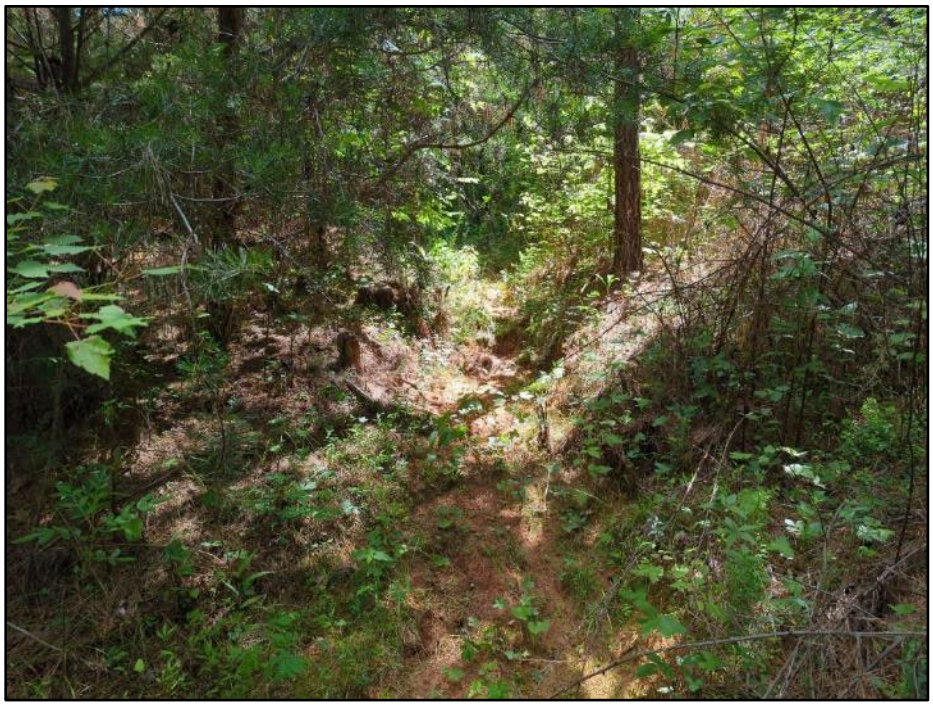
Photograph C-528: View of intermittent S-A036, facing north.

Photograph C-529: View of intermittent S-A036, facing south.

Photograph C-530: View of intermittent S-A037, facing west.

Photograph C-531: View of intermittent S-A037, facing east.

Photograph C-532: View of ephemeral S-A038, facing west.



Photograph C-533: View of ephemeral S-A038, facing east.

Photograph C-534: View of ephemeral S-A039, facing east.

Photograph C-535: View of ephemeral S-A039, facing west.

Photograph C-536: View of ephemeral S-040, facing east.

Photograph C-537: View of ephemeral S-040, facing west.

Photograph C-538: View of intermittent S-A041, facing southwest.

Photograph C-539: View of intermittent S-A041, facing northeast.

Photograph C-540: View of perennial S-A042, facing west.

Photograph C-541: View of perennial S-A042, facing east.

Photograph C-542: View of intermittent S-A043, facing east.

Photograph C-543: View of intermittent S-A043, facing west.

Photograph C-544: View of perennial S-A044, facing east.

Photograph C-545: View of perennial S-A044, facing west.

Photograph C-546: View of perennial S-A045, facing east.

Photograph C-547: View of perennial S-A045, facing west.

Photograph C-548: View of perennial S-A046, facing east.

Photograph C-549: View of perennial S-A046, facing west.

Photograph C-550: View of perennial S-A047, facing northeast.

Photograph C-551: View of perennial S-A047, facing southwest.

Photograph C-552: View of intermittent S-A048, facing east.

Photograph C-553: View of intermittent S-A048, facing west.

Photograph C-554: View of perennial S-A049, facing west.

Photograph C-555: View of perennial S-A049, facing east.

Photograph C-556: View of intermittent S-A050, facing northwest.

Photograph C-557: View of intermittent S-A050, facing southeast.

Photograph C-558: View of perennial S-A051 facing east.

Photograph C-559: View of perennial S-A051 facing west.

Photograph C-560: View of intermittent S-A052, facing east.

Photograph C-561: View of intermittent S-A052, facing west.

Photograph C-562: View of intermittent S-A053, facing south.

Photograph C-563: View of intermittent S-A053, facing west.

Photograph C-564: View of intermittent S-A054, facing northwest.

Photograph C-565: View of intermittent S-A054, facing southeast.

Photograph C-566: View of intermittent S-A055, facing north.

Photograph C-567: View of intermittent S-A055, facing south.

Photograph C-568: View of ephemeral S-A056, facing southeast.

Photograph C-569: View of ephemeral S-A056, facing northwest.

Photograph C-570: View of intermittent S-A057, facing northwest.

Photograph C-571: View of intermittent S-A057, facing southwest.

Photograph C-572: View of intermittent S-A058, facing southeast.

Photograph C-573: View of intermittent S-A058, facing northeast.

Photograph C-574: View of intermittent S-A059, facing southeast.

Photograph C-575: View of intermittent S-A059, facing northwest.

Photograph C-576: View of perennial S-A063, the Sandy River, facing east.

Photograph C-577: View of perennial S-A063, the Sandy River, facing west.

Photograph C-578: View of ephemeral S-A065 facing southwest.

Photograph C-579: View of ephemeral S-A065 facing northeast

Photograph C-580: View of ephemeral S-A066a, facing north.

Photograph C-581: View of ephemeral S-A066a, facing south.

Photograph C-582: View of ephemeral S-A066b, facing northwest.

Photograph C-583: View of ephemeral S-A066b, facing south.

Photograph C-584: View of ephemeral S-A067, facing northwest.

Photograph C-585: View of ephemeral S-A067, facing southeast.

Photograph C-586: View of ephemeral S-A068, facing northeast.

Photograph C-587: View of ephemeral S-A068, facing southwest.

Photograph C-588: View of intermittent S-A069, facing northwest.

Photograph C-589: View of intermittent S-A069, facing southeast

Photograph C-590: View of intermittent S-A070, facing northwest.

Photograph C-591: View of intermittent S-A070, facing southeast.

Photograph C-592: View of perennial S-A071, facing north.

Photograph C-593: View of perennial S-A071, facing south

Photograph C-594: View of intermittent S-B020, facing northwest.

Photograph C-595: View of intermittent S-B020, facing southeast.

Photograph C-596: View of intermittent S-B021, facing northeast.

Photograph C-597: View of intermittent S-B021, facing southwest.

Photograph C-598: View of ephemeral S-B022, facing east.

Photograph C-599: View of ephemeral S-B022, facing west.

Photograph C-600: View of ephemeral S-B023, facing northeast.

Photograph C-601: View of ephemeral S-B023, facing southwest.

Photograph C-602: View of intermittent S-B024, facing southeast.

Photograph C-603: View of intermittent S-B024, facing northwest.

Photograph C-604: View of ephemeral S-B025, facing north.

Photograph C-605: View of ephemeral S-B025, facing south.

Photograph C-606: View of intermittent S-B026, facing northwest.

Photograph C-607: View of intermittent S-B026, facing southeast.

Photograph C-608: View of intermittent S-B027, facing northwest.

Photograph C-609: View of intermittent S-B027, facing southeast.

Photograph C-610: View of ephemeral S-B028, facing northwest.

Photograph C-611: View of ephemeral S-B028, facing southeast.

Photograph C-612: View of perennial S-B029, Trotters Creek, facing northwest.

Photograph C-613: View of perennial S-B029, Trotters Creek, facing southeast.

Photograph C-614: View of ephemeral S-B030, facing northwest.

Photograph C-615: View of ephemeral S-B030, facing southeast.

Photograph C-616: View of ephemeral S-B031, facing northwest.

Photograph C-617: View of ephemeral S-B031, facing southeast.

Photograph C-618: View of intermittent S-B032, facing northwest.

Photograph C-619: View of intermittent S-B032, facing southeast.

Photograph C-620: View of intermittent S-B033, facing northwest.

Photograph C-621: View of intermittent S-B033, facing southeast.

Photograph C-622: View of intermittent S-B038, facing northwest.

Photograph C-623: View of intermittent S-B038, facing southeast.

Photograph C-624: View of ephemeral S-B039, facing east.

Photograph C-625: View of ephemeral S-B039, facing east.

Photograph C-626: View of ephemeral S-B040, facing east.

Photograph C-627: View of ephemeral S-B040, facing west.

Photograph C-628: View of intermittent S-B041, facing northwest.

Photograph C-629: View of intermittent S-B041, facing southeast.

Photograph C-630: View of perennial S-B042, facing northwest.

Photograph C-631: View of perennial S-B042, facing southeast.

Photograph C-632: View of perennial S-B043, facing northwest.

Photograph C-633: View of perennial S-B043, facing southeast.

Photograph C-634: View of perennial S-B044a, facing northwest.

Photograph C-635: View of perennial S-B044a, facing southeast.

Photograph C-636: View of perennial S-B044b, facing northwest.

Photograph C-637: View of intermittent S-B045, facing east.

Photograph C-638: View of intermittent S-B045, facing west.

Photograph C-639: View of intermittent S-B046, facing east.

Photograph C-640: View of intermittent S-B046, facing west.

Photograph C-641: View of intermittent S-B051, facing east.

Photograph C-642: View of intermittent S-B051, facing west.

Photograph C-643: View of intermittent S-B052, facing northwest.

Photograph C-644: View of intermittent S-B052, facing southeast.

Photograph C-645: View of ephemeral S-B053, facing northwest.

Photograph C-646: View of ephemeral S-B053, facing southeast.

Photograph C-647: View of intermittent S-B054, facing northwest.

Photograph C-648: View of intermittent S-B054, facing southeast.

Photograph C-649: View of intermittent S-B055, facing north.

Photograph C-650: View of intermittent S-B055, facing south.

Photograph C-651: View of ephemeral S-B056, facing northwest.

Photograph C-652: View of ephemeral S-B056, facing southeast.

Photograph C-653: View of ephemeral S-B058, facing north.

Photograph C-654: View of ephemeral S-B058, facing south.

Photograph C-655: View of ephemeral S-B059, facing east.

Photograph C-666: View of ephemeral S-B059, facing west.

Photograph C-667: View of ephemeral S-B060, facing northeast.

Photograph C-668: View of ephemeral S-B060, facing southwest.

Photograph C-669: View of ephemeral S-B061, facing northeast.

Photograph C-670: View of ephemeral S-B061, facing southwest.

Photograph C-671: View of ephemeral S-C001, facing east.

Photograph C-672: View of ephemeral S-C001, facing west.

Appendix D – USACE Norfolk District Wetland Attribute Forms

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A001										**Prepared by:** K. Gard **Date:** 09SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.820896, -79.349653
Acreage of Wetland/Acreage of Impact: 0.319744										**Nearest named watercourse:** Little Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Agricultural, Woodland
Distance to nearest roadway or development:										**Wetland has been altered or manipulated:** Disturbed by grazing
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	X	X	X	X	X			X	X		
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	X				X				X	
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A002										**Prepared by:** K. Gard **Date:**23AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont / Mountain Floodplain Forests and Swamps										**Latitude/Longitude:** 36.821734, -79.347892
Acreage of Wetland/Acreage of Impact: 0.439988										**Nearest named watercourse:** Little Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 0.2 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										**Data used to complete the form (data should be attached as appropriate):**

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	X				X				X	
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	N/A									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X					X				
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A003a										**Prepared by:** K. Gard **Date:**23AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.823101, -79.346889
Acreage of Wetland/Acreage of Impact: 1.911741										**Nearest named watercourse:** Little Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.28 mies										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	X		X			X					
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X			X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X	X		
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A003b										**Prepared by:** K. Gard **Date:**23AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.823333, -79.347235
Acreage of Wetland/Acreage of Impact: 0.146709										**Nearest named watercourse:** Little Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.25 miles										**Wetland has been altered or manipulated:** Partially within cleared right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A004										**Prepared by:** K. Gard **Date:**23AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.827441, -79.344446
Acreage of Wetland/Acreage of Impact: 0.030741										**Nearest named watercourse:** Little Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Commercial, woodland, cleared right-of-way
Distance to nearest roadway or development: 65 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A005										**Prepared by:** K. Gard **Date:**26AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.826070, -79.338731
Acreage of Wetland/Acreage of Impact: 0.051891										**Nearest named watercourse:** Little Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cropland
Distance to nearest roadway or development: 880 feet										**Wetland has been altered or manipulated:** Within cleared cropland area
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A006										**Prepared by:** K. Gard **Date:**26AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.825278, -79.344724
Acreage of Wetland/Acreage of Impact: 0.094203										**Nearest named watercourse:** Little Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared Right-of-Way
Distance to nearest roadway or development: 726 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A007										**Prepared by:** K. Gard **Date:**26AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.801918, -79.368224
Acreage of Wetland/Acreage of Impact: 0.021126										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Pasture, woodland
Distance to nearest roadway or development: 660 feet										**Wetland has been altered or manipulated:** Within cleared pasture, disturbed by grazing
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	TBD										
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A								X		
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other	X									

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A008										**Prepared by:** K. Gard **Date:**26AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.801951, -79.368420
Acreage of Wetland/Acreage of Impact: 0.004097										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Pasture, woodland
Distance to nearest roadway or development: 725 feet										**Wetland has been altered or manipulated:** Disturbed by grazing activity
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other	X									

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A010a										**Prepared by:** K. Gard **Date:**26AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.805108, -79.366998
Acreage of Wetland/Acreage of Impact: 2.236203										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right--of-way
Distance to nearest roadway or development: 0.3 miles										**Wetland has been altered or manipulated:** Significantly disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X								X	
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	X						X		X	
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A010b										**Prepared by:** K. Gard **Date:**26AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.806760, -79.364976
Acreage of Wetland/Acreage of Impact: 1.224919										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.49 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X									
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	X		X			X					
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A010c										**Prepared by:** K. Gard **Date:**26AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.805118, -79.366779
Acreage of Wetland/Acreage of Impact: 0.025273										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Pasture, woodland, cleared right-of-way
Distance to nearest roadway or development: 0.43 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	X									
40. Sources of excess nutrients are present in the watershed	X									
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A011										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.808655, -79.362851
Acreage of Wetland/Acreage of Impact: 0.032209										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, pasture, cleared right-of-way
Distance to nearest roadway or development: 975 feet										**Wetland has been altered or manipulated:** Significantly disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A012										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.809177, -79.362023
Acreage of Wetland/Acreage of Impact: 0.029588										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Pasture
Distance to nearest roadway or development: 0.2 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A013a										**Prepared by:** K. Gard **Date:**10SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.810325, -79.361064
Acreage of Wetland/Acreage of Impact: 1.035222										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.2 miles										**Wetland has been altered or manipulated:** Significantly disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	X		X			X					
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X						X	X		
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A013b										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.810974, -79.360145
Acreage of Wetland/Acreage of Impact: 0.447839										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.23 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A013c										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): PFO										**Latitude/Longitude:** 36.811541, -79.359459
Acreage of Wetland/Acreage of Impact: 0.069809										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.32 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	X		X								
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A013d										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.810731, -79.360332
Acreage of Wetland/Acreage of Impact: 0.257987										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.25 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A014										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.816343, -79.354164
Acreage of Wetland/Acreage of Impact: 0.085092										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 425 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	FIELD									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A015										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.816144, -79.353295
Acreage of Wetland/Acreage of Impact: 0.014154										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 525 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A016										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.817510, -79.353157
Acreage of Wetland/Acreage of Impact: 0.053980										**Nearest named watercourse:** Cherrystone Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared pastureland
Distance to nearest roadway or development: 8 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A017										**Prepared by:** K. Gard **Date:**27AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.736506, -79.438811
Acreage of Wetland/Acreage of Impact: 0.179324										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, pasture
Distance to nearest roadway or development: 0.23 miles										**Wetland has been altered or manipulated:** Disturbed by grazing
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	FIELD									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A019										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.788050, -79.384419
Acreage of Wetland/Acreage of Impact: 0.077983										**Nearest named watercourse:** Banister River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 310 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	X				X				X	
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	X									
60. Wetland is fragmented by development	X									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A020										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.773194, -79.399646
Acreage of Wetland/Acreage of Impact: 0.036284										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 895 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X						
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A021										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.772916, -79.399699
Acreage of Wetland/Acreage of Impact: 0.183275										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 865 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A022										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.771572, -79.401673
Acreage of Wetland/Acreage of Impact: 1.064532										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 62 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	X		X			X					
16. Ponded/open water is within the wetland	X		X		X	X					
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	X				X				X	
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A023										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.771875, -79.400330
Acreage of Wetland/Acreage of Impact: 0.109980										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 630 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	X		X		X	X					
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A024										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.766506, -79.400151
Acreage of Wetland/Acreage of Impact: 0.049249										**Nearest named watercourse:** Dry Fork
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 665 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	X							X		
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A025										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.741576, -79.434062
Acreage of Wetland/Acreage of Impact: 0.043864										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, pasture
Distance to nearest roadway or development: 250 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	X	X	X	X	X			X	X		
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	N/A										
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A026										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.746186, -79.429980
Acreage of Wetland/Acreage of Impact: 0.004905985										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Pasture, cleared right-of-way
Distance to nearest roadway or development: 175 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	X							X		
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	FIELD									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A027										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.753463, -79.423225
Acreage of Wetland/Acreage of Impact: 0.015763										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 805 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	X			X			X				
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	X							X		
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A028										**Prepared by:** K. Gard **Date:**28AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.734628, -79.440524
Acreage of Wetland/Acreage of Impact: 0.092881										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 555 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	FIELD									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A029a										**Prepared by:** K. Gard **Date:**29AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.735061, -79.440203
Acreage of Wetland/Acreage of Impact: 0.068701										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.28 miles										**Wetland has been altered or manipulated:** Significantly disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	N/A										
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width								X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A029b										**Prepared by:** K. Gard **Date:**29AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.734955, -79.440107
Acreage of Wetland/Acreage of Impact: 0.156826										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.28 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	X										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	N/A										
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	FIELD									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A030a										**Prepared by:** K. Gard **Date:**29AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.728975, -79.445933
Acreage of Wetland/Acreage of Impact: 0.082913										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, agriculture
Distance to nearest roadway or development: 0.11 miles										**Wetland has been altered or manipulated:** Significantly disturbed by natural gas pipeline right-of-way and beaver activity
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	X	X	X	X	X			X	X		
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X	X	X		X	X					
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	TBD										
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	X									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	FIELD									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A030b										**Prepared by:** K. Gard **Date:**29AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.729077, -79.445698
Acreage of Wetland/Acreage of Impact: 0.076407										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, agriculture
Distance to nearest roadway or development: 515 feet										**Wetland has been altered or manipulated:** Disturbed by beaver activity
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	X	X	X	X	X			X	X		
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	N/A										
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A031										**Prepared by:** K. Gard **Date:**11SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.720727, -79.454690
Acreage of Wetland/Acreage of Impact: 0.192272										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, Agricultural
Distance to nearest roadway or development: 0.37 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X					X	X		X	
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X						
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A032										**Prepared by:** K. Gard **Date:**29AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piemont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.757618, -79.419073
Acreage of Wetland/Acreage of Impact: 0.011438										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 350 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A033										**Prepared by:** K. Gard **Date:**30AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.720322, -79.455332
Acreage of Wetland/Acreage of Impact: 0.080249										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 265 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A034										**Prepared by:** K. Gard **Date:**30AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.719113, -79.457226
Acreage of Wetland/Acreage of Impact: 0.021423										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, woodland
Distance to nearest roadway or development: 0 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A035										**Prepared by:** K. Gard **Date:**30AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.719157, -79.457082
Acreage of Wetland/Acreage of Impact: 0.006205										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, woodland
Distance to nearest roadway or development: 30 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A036										**Prepared by:** K. Gard **Date:**30AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.707860, -79.466852
Acreage of Wetland/Acreage of Impact: 0.027317										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 155 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A037										**Prepared by:** K. Gard **Date:**30AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.703990, -79.470244
Acreage of Wetland/Acreage of Impact: 0.001227										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 415 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A038										**Prepared by:** K. Gard **Date:**30AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.704170, -79.470170
Acreage of Wetland/Acreage of Impact: 0.022835										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 415 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A039										**Prepared by:** K. Gard **Date:**30AUG24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.701621, -79.473402
Acreage of Wetland/Acreage of Impact: 0.065344										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, natural gas pipeline right-of-way
Distance to nearest roadway or development: 0.23 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A040										**Prepared by:** K. Gard **Date:** 11SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.701723, -79.473479
Acreage of Wetland/Acreage of Impact: 0.0069468										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, natural gas pipeline right-of-way
Distance to nearest roadway or development: 0.22 miles										**Wetland has been altered or manipulated:** Significantly disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	N/A									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A041										**Prepared by:** K. Gard **Date:**11SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.688850, -79.486141
Acreage of Wetland/Acreage of Impact: 0.016062										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, natural gas pipeline right-of-way, agriculture
Distance to nearest roadway or development: 0.32 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	N/A										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A042										**Prepared by:** K. Gard **Date:** 11SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.688881, -79.486269
Acreage of Wetland/Acreage of Impact: 0.000792										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, natural gas pipeline right-of-way, agriculture
Distance to nearest roadway or development: 0.32 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	X		X								
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland are channelized	N/A									
56. Flows within the wetland are channelized	n/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A043										**Prepared by:** K. Gard **Date:** 13SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.688836, -79.486237
Acreage of Wetland/Acreage of Impact: 0.000510										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, natural gas pipeline right-of-way, agriculture
Distance to nearest roadway or development: 0.32 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	X		X								
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	N/A									
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A044										**Prepared by:** K. Gard **Date:**13SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.681287, -79.489728
Acreage of Wetland/Acreage of Impact: 0.135840										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, residential
Distance to nearest roadway or development: 175 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A	X	X	X	X			X	X		
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A045										**Prepared by:** K. Gard **Date:**13SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.680318, -79.490231
Acreage of Wetland/Acreage of Impact: 0.080628										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, residential
Distance to nearest roadway or development: 360 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A046										**Prepared by: K. Gard** **Date:**13SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.671955, -79.498946
Acreage of Wetland/Acreage of Impact: 0.000227										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 0.26 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	N/A									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A047										**Prepared by:** K. Gard **Date:**17SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.671875, -79.498907
Acreage of Wetland/Acreage of Impact: 0.005249										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Agricultural, woodland
Distance to nearest roadway or development: 0.26 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	N/A										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	N/A									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A048										**Prepared by:** K. Gard **Date:**17SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.668165, -79.506520
Acreage of Wetland/Acreage of Impact: 0.008010										**Nearest named watercourse:** Silver Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agricultural, residential
Distance to nearest roadway or development: 230 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	N/A									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A049a										**Prepared by:** K. Gard **Date:** 17SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.673654, -79.501410
Acreage of Wetland/Acreage of Impact: 0.080690										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture, cleared right-of-way
Distance to nearest roadway or development: 0.13 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A049b										**Prepared by: K. Gard** **Date:**17SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.673617, -79.501616
Acreage of Wetland/Acreage of Impact: 0.029949										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agricultural, cleared right-of-way
Distance to nearest roadway or development: 0.13 miles										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	N/A									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A051										**Prepared by:** K. Gard **Date:**23OCT24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.651882, -79.522211
Acreage of Wetland/Acreage of Impact: 0.034032										**Nearest named watercourse:** Silver Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Agriculture, woodland
Distance to nearest roadway or development: 680 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	X		X								
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A052a										**Prepared by:** K. Gard **Date:**17SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.645380, -79.526617
Acreage of Wetland/Acreage of Impact: 0.026641										**Nearest named watercourse:** Silver Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 365 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A052b										**Prepared by:** K. Gard **Date:**17SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.645296, -79.526599
Acreage of Wetland/Acreage of Impact: 0.012673										**Nearest named watercourse:** Silver Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 290 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	FIELD										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A052c										**Prepared by:** K. Gard **Date:** 17SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.645340, -79.526666
Acreage of Wetland/Acreage of Impact: 0.011699										**Nearest named watercourse:** Silver Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 375 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A054										**Prepared by:** K. Gard **Date:** 18SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.644102, -79.527391
Acreage of Wetland/Acreage of Impact: 0.100473										**Nearest named watercourse:** Dunbar Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Agriculture, woodland, residential
Distance to nearest roadway or development: 145 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A055										**Prepared by:** K. Gard **Date:** 18SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.636045, -79.538423
Acreage of Wetland/Acreage of Impact: 0.002877										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 0.38 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X			X			
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	X		X		X	X					
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	X			X							
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A056										**Prepared by:** K. Gard **Date:**18SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.636050, -79.538258
Acreage of Wetland/Acreage of Impact: 0.010912										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 0.36 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	X		X		X	X					
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	X			X							
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A057										**Prepared by:** K. Gard **Date:**18SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.635997, -79.538094
Acreage of Wetland/Acreage of Impact: 0.010042										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 0.35 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A				X						
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	X		X		X	X					
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	X			X							
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A058										**Prepared by:** K. Gard **Date:** 18SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.635866, -79.537848
Acreage of Wetland/Acreage of Impact: 0.002805										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 0.34 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	X			X							
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A059										**Prepared by:** K. Gard **Date:**23OCT24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.63507373, -79.5357288
Acreage of Wetland/Acreage of Impact: 0.035744										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Depositional Bar										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 0.22 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	N/A										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	X			X							
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A060										**Prepared by:** K. Gard **Date:** 18SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.634991, -79.535598
Acreage of Wetland/Acreage of Impact: 0.004286										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 0.22 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	X			X							
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A061										**Prepared by:** K. Gard **Date:** 19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5306389°W 36.6379700°N
Acreage of Wetland/Acreage of Impact: 0.008444										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Agriculture, woodland
Distance to nearest roadway or development:										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A062										**Prepared by:** K. Gard **Date:**19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5292663°W 36.6371407°N
Acreage of Wetland/Acreage of Impact: 0.051913										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture, residential
Distance to nearest roadway or development: 85 feet										**Wetland has been altered or manipulated:** Disturbed by road maintenance
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	X	X	X	X	X						
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	N/A									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A			X						
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A063										**Prepared by:** K. Gard **Date:** 19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5482027°W 36.6279979°N
Acreage of Wetland/Acreage of Impact: 0.016805										**Nearest named watercourse:** Hardys Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 660 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	N/A									
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A064										**Prepared by:** K. Gard **Date:**19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5504516°W 36.6255846°N
Acreage of Wetland/Acreage of Impact: 0.097559										**Nearest named watercourse:** Hardys Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 860 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	X	X									
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A065										**Prepared by:** K. Gard **Date:** 19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5534158°W 36.6227724°N
Acreage of Wetland/Acreage of Impact: 0.004605										**Nearest named watercourse:** Hardys Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 430 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A066										**Prepared by:** K. Gard **Date:**19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5535504°W 36.6226822°N
Acreage of Wetland/Acreage of Impact: 0.004529										**Nearest named watercourse:** Hardys Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 390 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A067										**Prepared by:** K. Gard **Date:**19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5537338°W 36.6224375°N
Acreage of Wetland/Acreage of Impact: 0.017865										**Nearest named watercourse:** Hardys Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 280 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A068										**Prepared by:** K. Gard **Date:** 19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.4082817°W 36.7681258°N
Acreage of Wetland/Acreage of Impact: 0.016435										**Nearest named watercourse:** Bannister River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 575 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A069										**Prepared by:** K. Gard **Date:**19SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.4183947°W 36.7580512°N
Acreage of Wetland/Acreage of Impact: 0.008389										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 430 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A070a										**Prepared by:** K. Gard **Date:** 20SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piemont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.4189425°W 36.7577499°N
Acreage of Wetland/Acreage of Impact: 0.022211										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 405 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A070b										**Prepared by:** K. Gard **Date:**20SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.4188294°W 36.7578488°N
Acreage of Wetland/Acreage of Impact: 0.008757										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 390 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	FIELD									
65. Other	N/A									

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A070c										**Prepared by: K. Gard** **Date:**20SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.4188144°W 36.7576913°N
Acreage of Wetland/Acreage of Impact: 0.092521										**Nearest named watercourse:** White Oak Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 430 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A071a										**Prepared by:** K. Gard **Date:**20SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5434084°W 36.6325862°N
Acreage of Wetland/Acreage of Impact: 0.002809										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.3 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A071b										**Prepared by:** K. Gard **Date:**20SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5433992°W 36.6325289°N
Acreage of Wetland/Acreage of Impact: 0.006453										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.3 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	X				X				X	
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	X							X		
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A072										**Prepared by:** K. Gard **Date:** 23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Monutain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.3889642°W 36.7833894°N
Acreage of Wetland/Acreage of Impact: 0.001358										**Nearest named watercourse:** Bannister River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agricultural
Distance to nearest roadway or development: 0.19 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A073a										**Prepared by:** K. Gard **Date:**23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.774713, -79.399031
Acreage of Wetland/Acreage of Impact: 0.42										**Nearest named watercourse:** Banister River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.26 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A	X									
14. Signs of variable water levels are present in the wetland	N/A	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A		X			X					
16. Ponded/open water is within the wetland	X		X		X	X					
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A								X		
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	X			X			X				
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A073b										**Prepared by:** K. Gard **Date:**08OCT24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.774916, -79.398862
Acreage of Wetland/Acreage of Impact: 0.26										**Nearest named watercourse:** Banister River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, woodland
Distance to nearest roadway or development: 0.23 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A	X			X						
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	X			X			X				
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A075										**Prepared by:** K. Gard **Date: 23SEP24**
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.3888364°W 36.7833124°N
Acreage of Wetland/Acreage of Impact: 0.003083										**Nearest named watercourse:** Banister River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 0.2 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	X		X								
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A076										**Prepared by:** K. Gard **Date:**23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5175458°W 36.6575951°N
Acreage of Wetland/Acreage of Impact: 0.0193703										**Nearest named watercourse:** Silver Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.23 miles										**Wetland has been altered or manipulated:**
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	X		X								
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	X			X			X				
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	X							X		
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A078										**Prepared by:** K. Gard **Date:**11OCT24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.557249, -79.616482
Acreage of Wetland/Acreage of Impact: 0.006323										**Nearest named watercourse:** Mountain Run
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, woodland, arborculture
Distance to nearest roadway or development: 0.27 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	X							X		
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B013a										**Prepared by:** K. Gard **Date:**23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6325735°W 36.5418709°N
Acreage of Wetland/Acreage of Impact: 0.014874										**Nearest named watercourse:** Dan River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Pine plantation, cleared right-of-way
Distance to nearest roadway or development: 275 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	X		X		X	X					
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A013b										**Prepared by:** K. Gard **Date:** 23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6324848°W 36.5418187°N
Acreage of Wetland/Acreage of Impact: 0.175338										**Nearest named watercourse:** Dan River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Pine plantation, cleared right-of-way
Distance to nearest roadway or development: 280 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B014										**Prepared by:** K. Gard **Date:** 23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6299735°W 36.5443075°N
Acreage of Wetland/Acreage of Impact: 0.070551										**Nearest named watercourse:** Dan River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.22 miles										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	X		X		X	X					
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	X				X				X	
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A015										**Prepared by:** K. Gard **Date:**23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6217628°W 36.5525208°N
Acreage of Wetland/Acreage of Impact: 0.010557										**Nearest named watercourse:** Dan River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.19 miles										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B016										**Prepared by:** K. Gard **Date:**23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6162239°W 36.5510214°N
Acreage of Wetland/Acreage of Impact: 0.209616										**Nearest named watercourse:** Dan River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland**, cleared right-of-way**
Distance to nearest roadway or development: 495 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	X	X	X	X	X						
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B017										**Prepared by:** K. Gard **Date:**23SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6164335°W 36.5580696°N
Acreage of Wetland/Acreage of Impact: 3.512858										**Nearest named watercourse:** Mountain Run
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, pine plantation
Distance to nearest roadway or development: 0.24 miles										**Wetland has been altered or manipulated:** Disturbed by timber harvesting and natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	X	X	X	X	X						
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	X		X			X					
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	X						X		X	
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B018										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude: 7**9.6173596°W 36.5563423°N
Acreage of Wetland/Acreage of Impact: 0.044188										**Nearest named watercourse:** Dan River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 385 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B019										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6128964°W 36.5622600°N
Acreage of Wetland/Acreage of Impact: 0.272485										**Nearest named watercourse:** Mountain Run
Landscape position of wetland: Floodplain										**Adjacent landuse:** Logging, cleared right-of-way
Distance to nearest roadway or development: 0.29 miles										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	N/A										
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	X						X		X	
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B020										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6134861°W 36.5655201°N
Acreage of Wetland/Acreage of Impact: 0.123673										**Nearest named watercourse: Mountain Run**
Landscape position of wetland: Floodplain										**Adjacent landuse:** Logging, cleared right-of-way
Distance to nearest roadway or development: 770 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way and logging debris
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	TBD										
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	X		X								
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	X						X		X	
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	X							X		
56. Flows within the wetland are channelized	X							X		
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B021										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5988662°W 36.5847342°N
Acreage of Wetland/Acreage of Impact: 0.025992										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 255 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	X	X	X		X						
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B022										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6061573°W 36.5723043°N
Acreage of Wetland/Acreage of Impact: 0.47749										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland
Distance to nearest roadway or development: 0.2 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	X								X	
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B023										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5869375°W 36.5867917°N
Acreage of Wetland/Acreage of Impact: 0.048186										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 130 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B024										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5882314°W 36.5856559°N
Acreage of Wetland/Acreage of Impact: 0.01244										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 830 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B025										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5903686°W 36.5846381°N
Acreage of Wetland/Acreage of Impact: 0.174346										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.26 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B026										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5910951°W 36.5838377°N
Acreage of Wetland/Acreage of Impact: 0.204631										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.31 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B035										**Prepared by:** K. Gard **Date:** 24SEP4
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5920535°W 36.5827856°N
Acreage of Wetland/Acreage of Impact: 0.024836										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.51 miles										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	X	X									
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B036a										**Prepared by:** K. Gard **Date:**24SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5861740°W 36.5875129°N
Acreage of Wetland/Acreage of Impact: 0.025783										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, residential, cleared right-of-way
Distance to nearest roadway or development: 220 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-A036b										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5865910°W 36.5872743°N
Acreage of Wetland/Acreage of Impact: 0.0077833										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Residential, cleared right-of-way
Distance to nearest roadway or development: 0 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	X				X						
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B037a										**Prepared by:** K. Gard **Date:**09OCT24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 36.590314, -79.583250
Acreage of Wetland/Acreage of Impact: 0.007126										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, residential
Distance to nearest roadway or development: 350 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	N/A										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B037b										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5832023°W 36.5902981°N
Acreage of Wetland/Acreage of Impact: 0.01868										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, residential
Distance to nearest roadway or development: 440 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B038a										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5769417°W 36.5959686°N
Acreage of Wetland/Acreage of Impact: 0.075689										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, residential
Distance to nearest roadway or development: 410 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B038b										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5770999°W 36.5957132°N
Acreage of Wetland/Acreage of Impact: 0.11408										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, residential
Distance to nearest roadway or development: 540 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	FIELD										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B038c										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5772856°W 36.5957378°N
Acreage of Wetland/Acreage of Impact: 0.091163										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, residential
Distance to nearest roadway or development: 550 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B039a										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5743953°W 36.5988180°N
Acreage of Wetland/Acreage of Impact: 0.027934										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, agriculture
Distance to nearest roadway or development: 530 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	N/A										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	FIELD										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B039b										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5742722°W 36.5987868°N
Acreage of Wetland/Acreage of Impact: 0.141745										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, residential
Distance to nearest roadway or development: 500 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	N/A										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	X				X					
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B040										**Prepared by:** K. Gard **Date:**24SEP25
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5705446°W 36.6033433°N
Acreage of Wetland/Acreage of Impact: 0.005017										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, agriculture
Distance to nearest roadway or development: 530 feet										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.
C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.
D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.
E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.
F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.
G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.
H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.
I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	X	X	X	X	X						
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	X			X			X				
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B041										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5703984°W 36.6032262°N
Acreage of Wetland/Acreage of Impact: 0.02498										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, agriculture
Distance to nearest roadway or development: 575 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	X	X	X	X	X						
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	X			X			X				
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B042										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5680441°W 36.6061606°N
Acreage of Wetland/Acreage of Impact: 0.13292										**Nearest named watercourse:** Trayner Branch
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, agriculture
Distance to nearest roadway or development: 790 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B043										**Prepared by:** K. Gard **Date:**25SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5628036°W 36.6137000°N
Acreage of Wetland/Acreage of Impact: 0.341168										**Nearest named watercourse:** Hardys Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way, residential
Distance to nearest roadway or development: 295 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	N/A										
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	X									X	
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	X									X	
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	X			X							
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	X				X	X					

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	X				X				X	
38. Evidence of sediment accumulation is present within the wetland	X				X	X		X		
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	X					X				
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	X					X				
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	X						X		X	
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	X				X	X				
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	X							X		
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	X							X		
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	X			X					X	
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B044										**Prepared by:** K. Gard **Date:**26SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5597247°W 36.6172467°N
Acreage of Wetland/Acreage of Impact: 0.074284										**Nearest named watercourse:** Sandy Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, woodland, residential
Distance to nearest roadway or development: 120 feet										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	X			X							
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	X				X						
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	X						X	X		
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B046										**Prepared by:** K. Gard **Date:**26SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5398766°W 36.6335752°N
Acreage of Wetland/Acreage of Impact: 0.069154										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.52 miles										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	N/A										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	X				X					
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B047a										**Prepared by:** K. Gard **Date:**26SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5365959°W 36.6344404°N
Acreage of Wetland/Acreage of Impact: 0.641833										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.55 miles										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	X			X							
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	X				X					
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	X							X		
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B047b										**Prepared by:** K. Gard **Date:**26SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5378834°W 36.6350652°N
Acreage of Wetland/Acreage of Impact: 0.312265										**Nearest named watercourse:** Sandy River
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, cleared right-of-way
Distance to nearest roadway or development: 0.54 miles										**Wetland has been altered or manipulated:** Disturbed by natural gas pipeline right-of-way
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	X			X							
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	X			X							
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B047										**Prepared by:** K. Gard **Date:**26SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5975230°W 36.5769734°N
Acreage of Wetland/Acreage of Impact: 0.0188726										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, woodland
Distance to nearest roadway or development: 0.85 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	N/A										
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	N/A										
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	N/A										
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	N/A										
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	N/A									
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B049										**Prepared by:** K. Gard **Date:**26SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6125819°W 36.5665486°N
Acreage of Wetland/Acreage of Impact: 0.080826										**Nearest named watercourse:** Mountain Run
Landscape position of wetland: Floodplain										**Adjacent landuse:** Woodland, agriculture
Distance to nearest roadway or development: 0.2 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A					X					
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A								X		
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	X		X		X						
23. The wetland is located in/along/at the head of a watercourse	X		X								
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	X			X							
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	N/A									
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B050										**Prepared by:** K. Gard **Date:**26SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.6131859°W 36.5614063°N
Acreage of Wetland/Acreage of Impact: 0.0890257										**Nearest named watercourse:** Mountain Run
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, woodland, agriculture
Distance to nearest roadway or development: 0.4 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	X	X	X		X	X					
11. A defined inlet is associated with the wetland	X	X									
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	X	X									
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	N/A										
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	X							X			
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	X				X			X			
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	X						X		X	
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	X								X	
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

Wetland Identifier: W-B054										**Prepared by:** K. Gard **Date:**26SEP24
Community Type of wetland system being evaluated (use Natural Communities of VA): Piedmont/Mountain Floodplain Forests & Swamps										**Latitude/Longitude:** 79.5917734°W 36.5824621°N
Acreage of Wetland/Acreage of Impact: 0.182866										**Nearest named watercourse:** Trotters Creek
Landscape position of wetland: Floodplain										**Adjacent landuse:** Cleared right-of-way, woodland
Distance to nearest roadway or development: 0.42 miles										**Wetland has been altered or manipulated:** N/A
Corps Regional Supplement Delineation Completed/Reviewed: Completed & Reviewed Eastern Mountains and Piedmont Region										

ATTRIBUTES

A. GROUNDWATER RECHARGE/DISCHARGE: This attribute considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It relates to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

B. FLOODFLOW ALTERATION (Storage & Desychronization): This attribute considers the potential for the wetland to reduce flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It relates to the potential for the wetland to add to the stability of the wetland ecological system or the wetland buffering characteristics relative to erosion and flood prone areas.

C. FISH AND SHELLFISH HABITAT: This attribute considers the potential of the seasonal or permanent watercourses associated with the wetland to provide fish or shellfish habitat.

D. SEDIMENT/POLLUTANT RETENTION: This attribute considers the potential of the wetland in reducing or preventing degradation of water quality. It relates to the potential for the wetland to act as a trap for sediment and other pollutants in runoff water from the surrounding watershed.

E. NUTRIENT REMOVAL/RETENTION/TRANSFORMATION: This attribute considers the potential for the wetland to act as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. It relates to the potential of the wetland to prevent adverse effects of nutrients entering aquifers or surface waters such as ponds, lakes, and other watercourses.

F. PRODUCTION EXPORT (Nutrients): This attribute considers the potential of the wetland to produce food or usable products for humans or other living organisms.

G. STREAMBANK EROSION/SHORELINE STABILIZATION: This attribute considers the potential of the wetland to stabilize streambanks and shorelines against erosion.

H. WILDLIFE HABITAT: This attribute considers the potential of the wetland to provide habitat for various types of animal populations typically associated with wetlands. Consideration should be given to both resident and/or migrating species.

I. RARE/THREATENED/ENDANGERED SPECIES: This attribute considers the potential for the wetland to support rare/threatened/endangered plant and/or animal species.

US Army Corps of Engineers Norfolk District Wetland Attribute Form

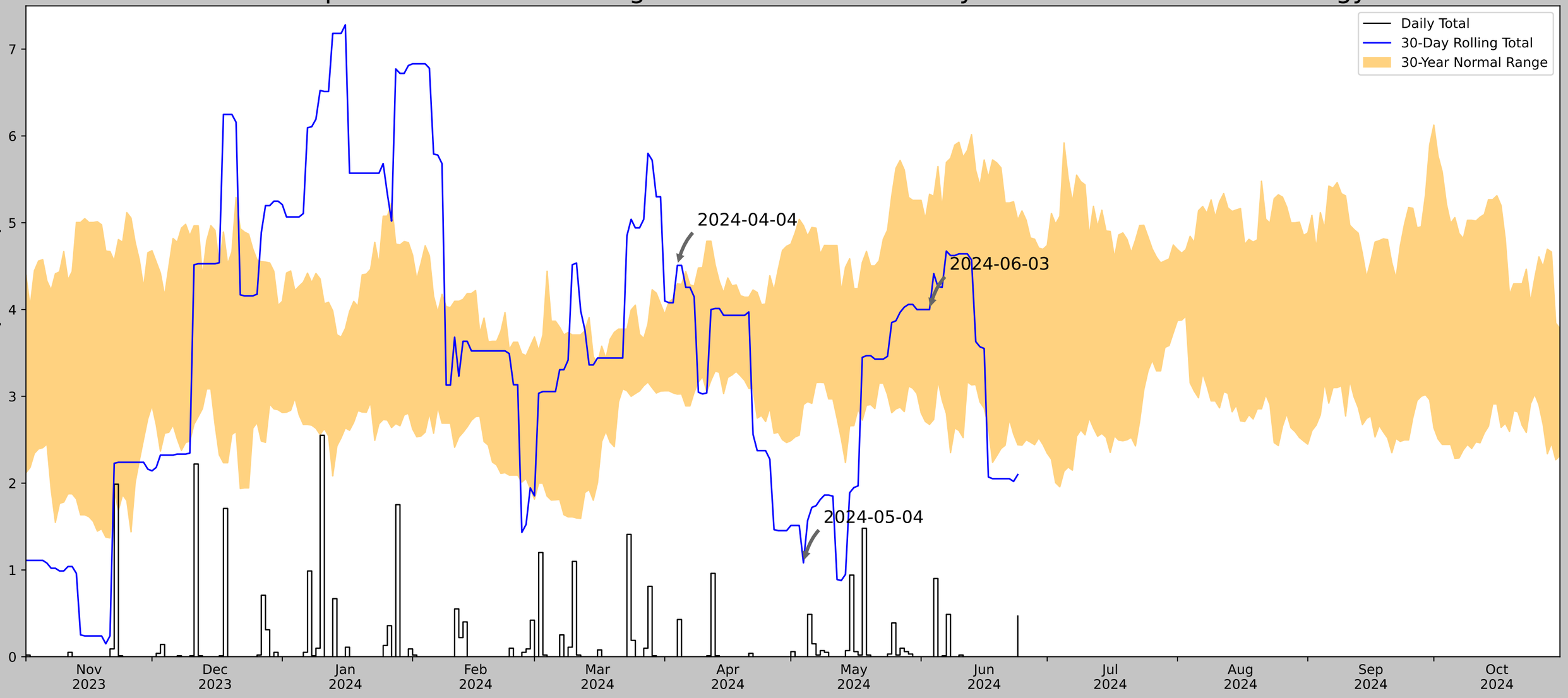
Qualifiers	Attributes Check all that apply & identify which Attribute the Qualifier applies to										Comments and/or detailed observations
		A	B	C	D	E	F	G	H	I	
1. Public or private wells occur below the wetland	N/A										
2. Gravel/sandy soils are present in/adjacent to the wetland	N/A										
3. Fragipan/impervious soils/bedrock are present in the wetland	N/A										
4. Fine grained mineral/organic soils are present in the wetland	X				X	X					
5. A man-made ditch is associated with/adjacent/contiguous to the wetland	N/A										
6. A perennial/intermittent watercourse is associated with/adjacent/contiguous to the wetland	X	X		X				X			
7. A pond/lake is associated with/adjacent/contiguous to the wetland	N/A										
8. Critical habitat for state/federally listed rare/threatened/endangered plant/animal species is present in the wetland	N/A										
9. State/federally listed rare/threatened/endangered plant/animal species are present in the wetland	N/A										
10. A defined/constricted outlet Is associated with the wetland	N/A										
11. A defined inlet is associated with the wetland	N/A										
12. Water quality of the watercourse/pond/lake associated with the wetland meets or exceeds standards	X	X							X		
13. Signs of groundwater discharge are present in the wetland	N/A										
14. Signs of variable water levels are present in the wetland	N/A										
15. The size of the wetland relative to its watershed is large	N/A										
16. Ponded/open water is within the wetland	N/A										
17. The wetland exists in a flat area with flood storage potential	X		X								
18. The wetland watershed contains a high percentage of impervious surfaces	N/A										
19. Flood storage is small/nonexistent in the watershed	N/A										
20. The wetland receives/retains sheetflow from the surrounding uplands	X		X								
21. The wetland receives/detains excessive flood water from watercourses within the watershed	X		X								
22. The watercourse associated with the wetland is sinuous or diffuse	N/A										
23. The wetland is located in/along/at the head of a watercourse	N/A										
24. The wetland contains a high density of vegetation	X		X		X	X	X		X		
25. Forest is the dominant cover type in the watershed	N/A										
26. Woody debris, undercut/overhanging banks and/or vegetation are present within the wetland or the watercourse associated with the wetland	N/A										
27. Width of watercourse (bank to bank) associated with the wetland is more than 50 feet	N/A										
28. Vegetation along the banks provides shade for the watercourse associated with the wetland	N/A										
29. Submerged vegetation/gravel beds/other habitat that appears to be suitable for spawning is present in the watercourse associated with the wetland	N/A										
30. Barrier(s) to anadromous fish (such as dams, waterfalls, road crossings) are absent from the watercourse associated with the wetland	X			X							
31. Evidence of fish/shellfish is present within the watercourse associated with the wetland and/or within the wetland	N/A										
32. Sources of excess sediments are present in the watershed	N/A										
33. Sources of pollutants are present in the watershed	N/A										
34. Flow velocities visibly decrease within the wetland	N/A										
35. Erosion is visible within the watercourse associated with the wetland and/or within the wetland	N/A										
36. Flows within the wetland are diffuse	N/A										

US Army Corps of Engineers Norfolk District Wetland Attribute Form

		A	B	C	D	E	F	G	H	I
37. Vegetation and water within the wetland is interspersed	N/A									
38. Evidence of sediment accumulation is present within the wetland	N/A									
39. Water intakes are located within 1 mile upstream or downstream of the wetland	N/A									
40. Sources of excess nutrients are present in the watershed	X					X				
41. The wetland soils are saturated for most of the season	X					X				
42. Deep organic sediment deposits are present in the wetland	N/A									
43. Emergent vegetation is present in the wetland	X					X				
44. Dense woody vegetation is present in the wetland	N/A									
45. More than one of wetland vegetation is present	X					X	X		X	
46. Flows within the wetland have a low velocity	N/A									
47. Wildlife food sources exist within the wetland	N/A									
48. Economically/commercially used products are within the wetland	N/A									
49. Evidence of wildlife, to include avian and amphibian, uses are found within the wetland	N/A									
50. Evidence of macrobenthic use is found within the watercourse associated with the wetland	N/A									
51. More than one vegetative layer is present within the wetland	N/A									
52. A distinct shoreline/streambank exists between the wetland and the watercourse associated with the wetland and/or the upland	N/A									
53. The streambank/shoreline contains dense roots	N/A									
54. The wetland is greater than 10 feet in width	X							X		
55. Flows within the wetland have a high velocity	N/A									
56. Flows within the wetland are channelized	N/A									
57. Open water fetch is present	N/A									
58. Dense woody vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
59. Dense emergent vegetation borders the watercourse/lake/pond associated with the wetland	N/A									
60. Wetland is fragmented by development	N/A									
61. Buffer surrounding wetland is contiguous and undeveloped	N/A									
62. Wetland is part of a wildlife corridor	N/A									
63. Wetland includes deep/shallow marsh or wooded swamp	X								X	
64. Logs/snags are present in the watercourse associated with the wetland	N/A									
65. Other										

Appendix E – USACE Antecedent Precipitation Tool Results

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-03
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-03	2.676378	5.329134	4.0	Normal	2	3	6
2024-05-04	2.904725	4.967323	1.082677	Dry	1	2	2
2024-04-04	3.025197	4.296851	4.507874	Wet	3	1	3
Result							Normal Conditions - 11

US Army Corps of Engineers

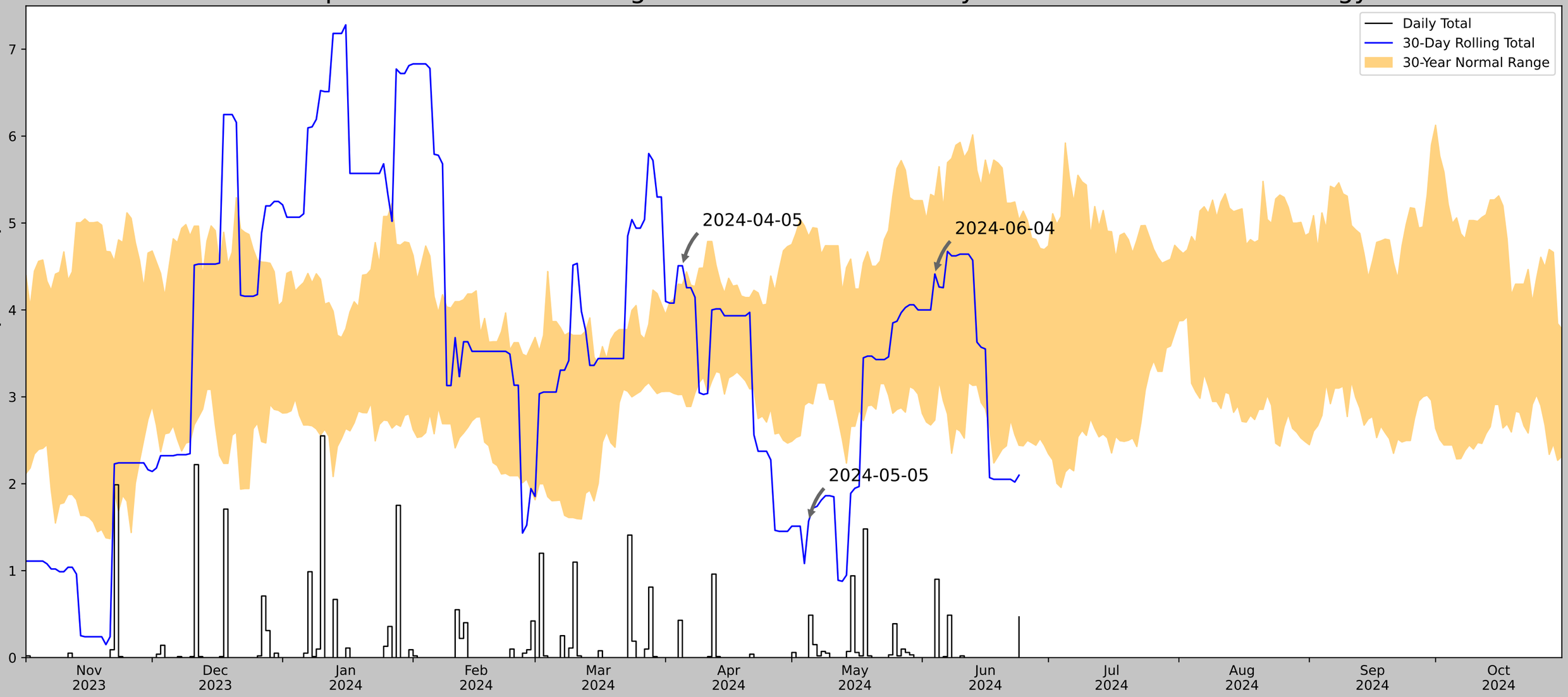
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-04
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-04	2.733465	5.303543	4.413386	Normal	2	3	6
2024-05-05	2.940158	4.846063	1.570866	Dry	1	2	2
2024-04-05	3.027953	4.290945	4.507874	Wet	3	1	3
Result							Normal Conditions - 11

US Army Corps of Engineers

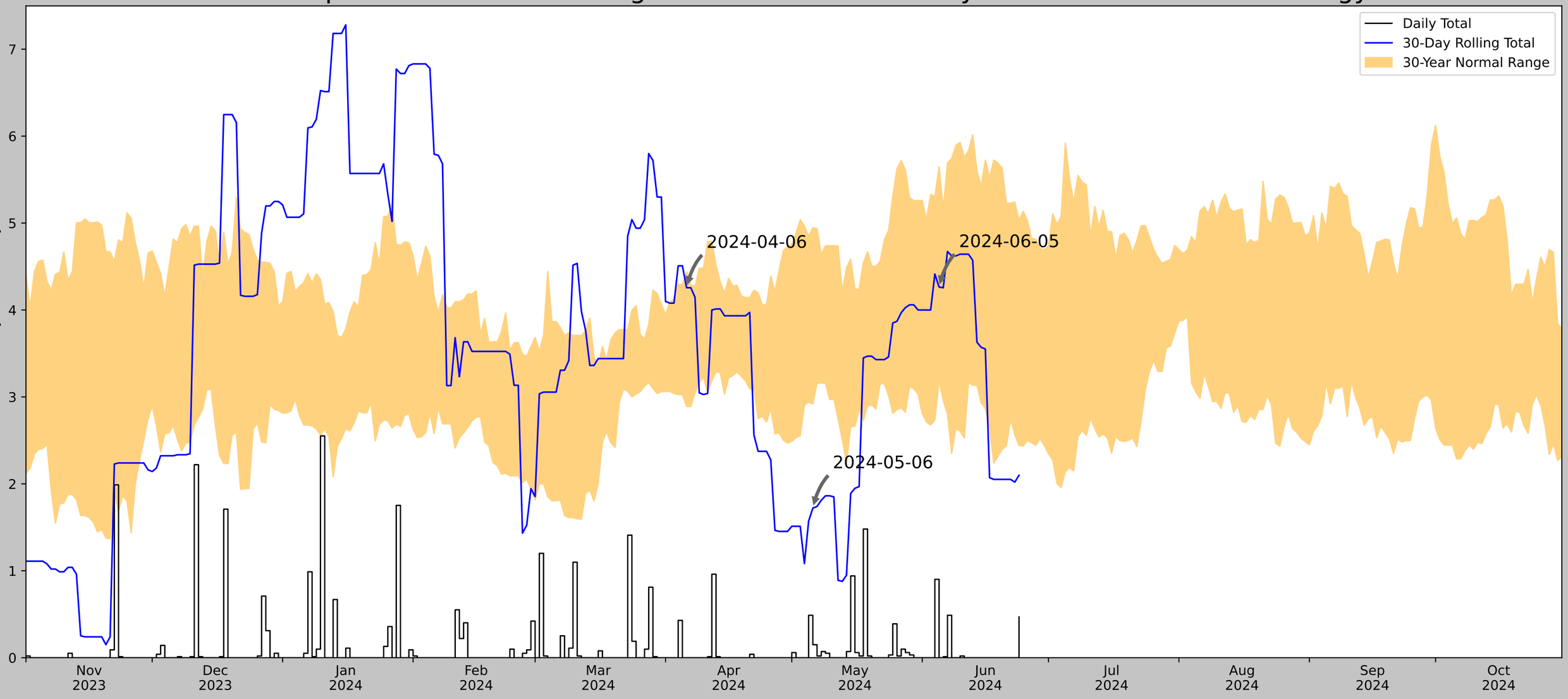
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-05
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-05	3.182677	5.648425	4.26378	Normal	2	3	6
2024-05-06	2.918898	4.946063	1.720472	Dry	1	2	2
2024-04-06	2.88937	4.438583	4.255906	Normal	2	1	2
Result							Normal Conditions - 10

US Army Corps of Engineers

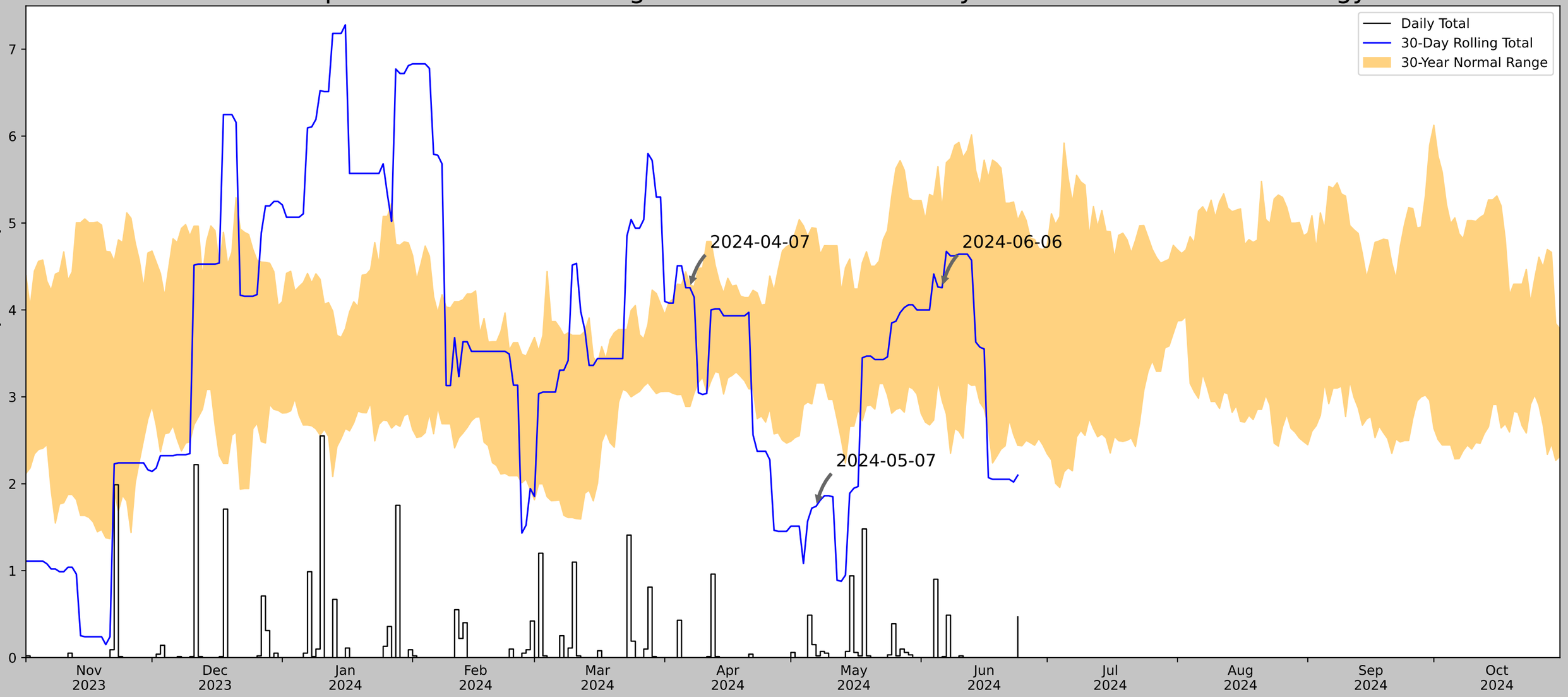
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-06
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-06	2.956693	5.162992	4.255906	Normal	2	3	6
2024-05-07	3.158268	4.937795	1.740158	Dry	1	2	2
2024-04-07	2.88937	4.285433	4.255906	Normal	2	1	2
Result							Normal Conditions - 10

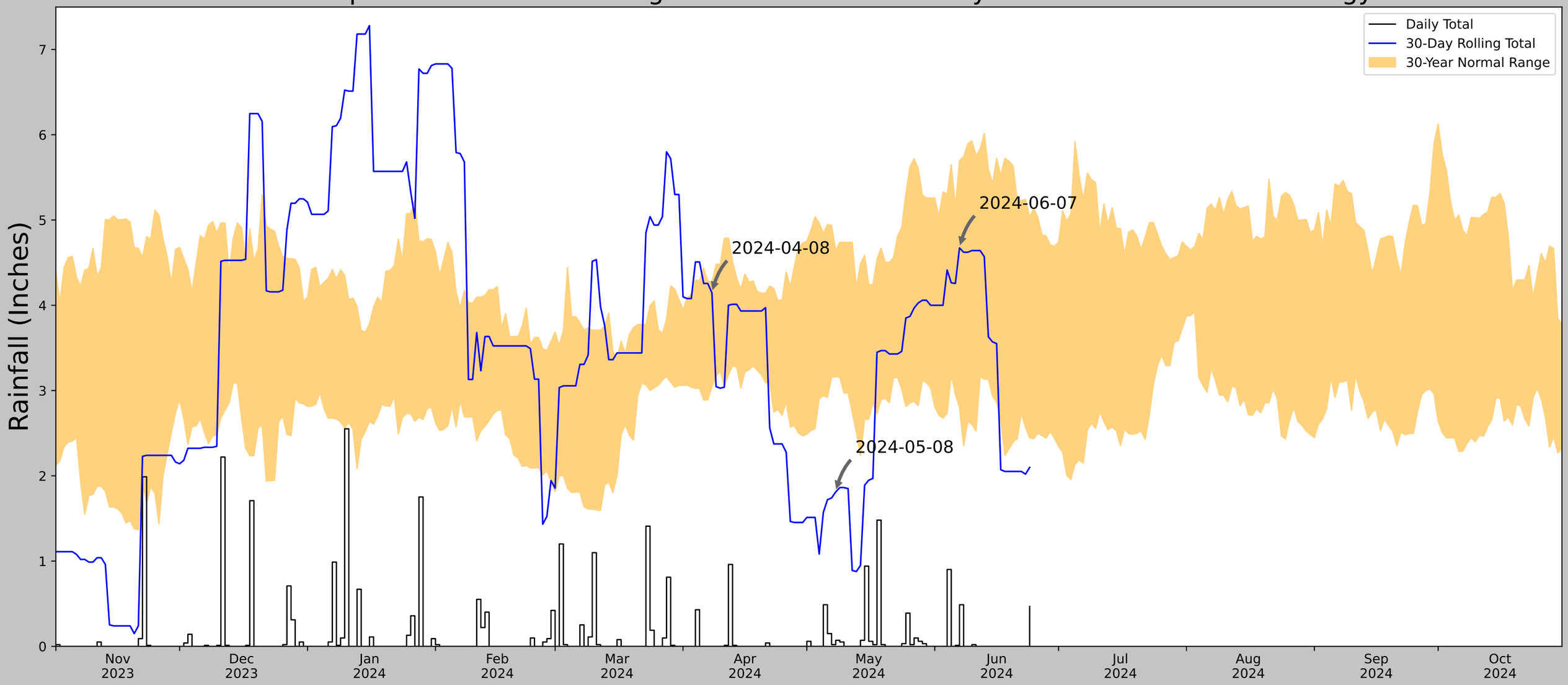
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-07
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-07	2.802362	5.695276	4.673228	Normal	2	3	6
2024-05-08	3.16063	4.63937	1.811024	Dry	1	2	2
2024-04-08	3.04685	4.268898	4.145669	Normal	2	1	2
Result							Normal Conditions - 10

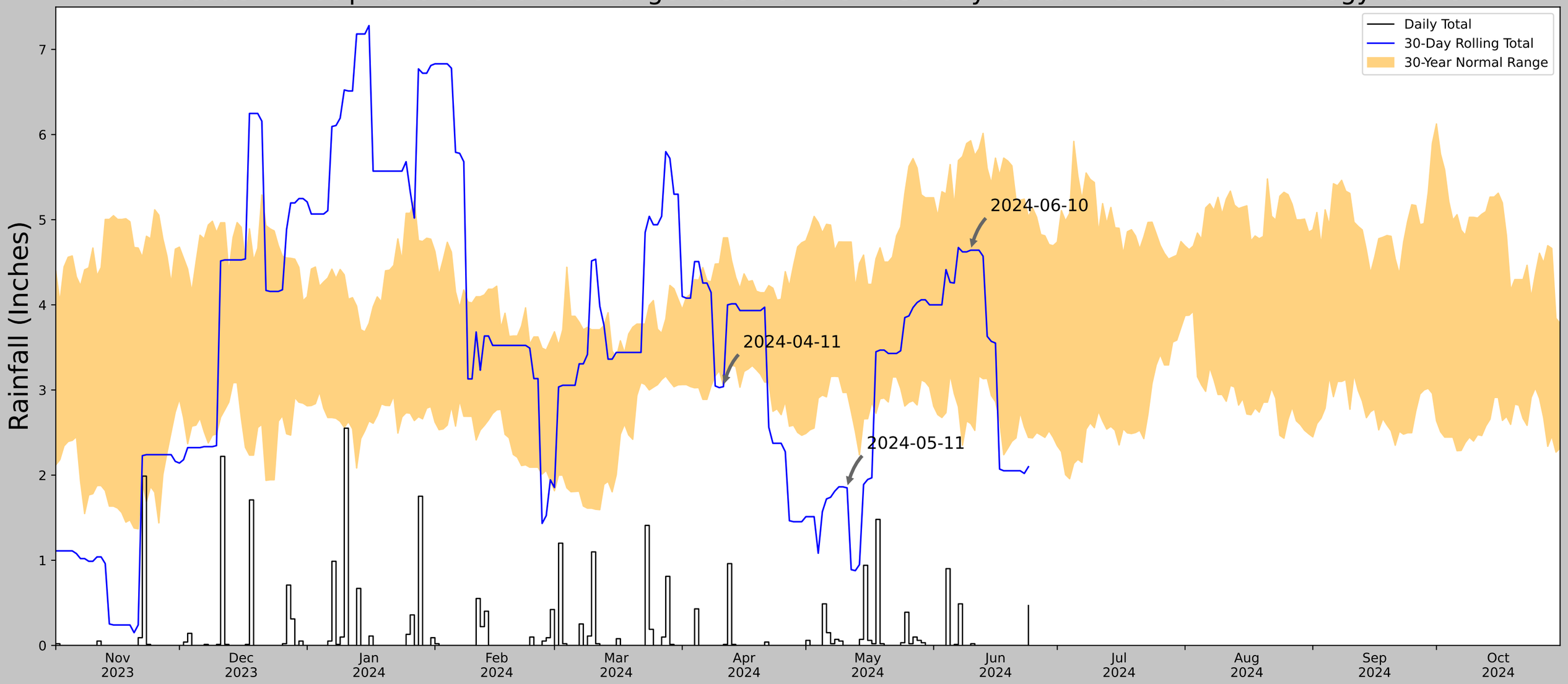
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-10
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-10	2.605906	5.927559	4.641732	Normal	2	3	6
2024-05-11	2.970473	4.738189	1.850394	Dry	1	2	2
2024-04-11	3.051181	4.787795	3.03937	Dry	1	1	1
Result							Drier than Normal - 9

US Army Corps of Engineers

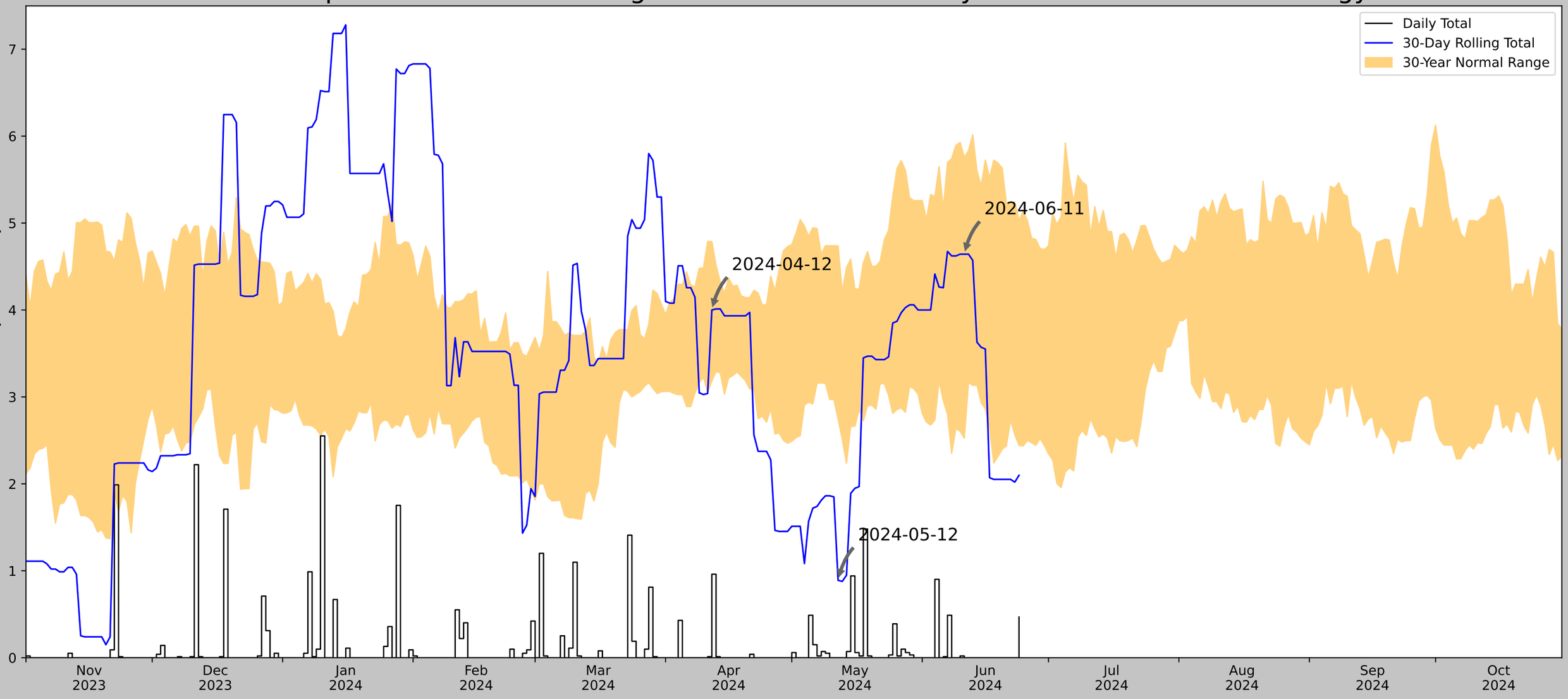
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-11
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-11	2.52441	5.755118	4.641732	Normal	2	3	6
2024-05-12	2.74685	4.738189	0.889764	Dry	1	2	2
2024-04-12	3.183465	4.787795	4.0	Normal	2	1	2
Result							Normal Conditions - 10

US Army Corps of Engineers

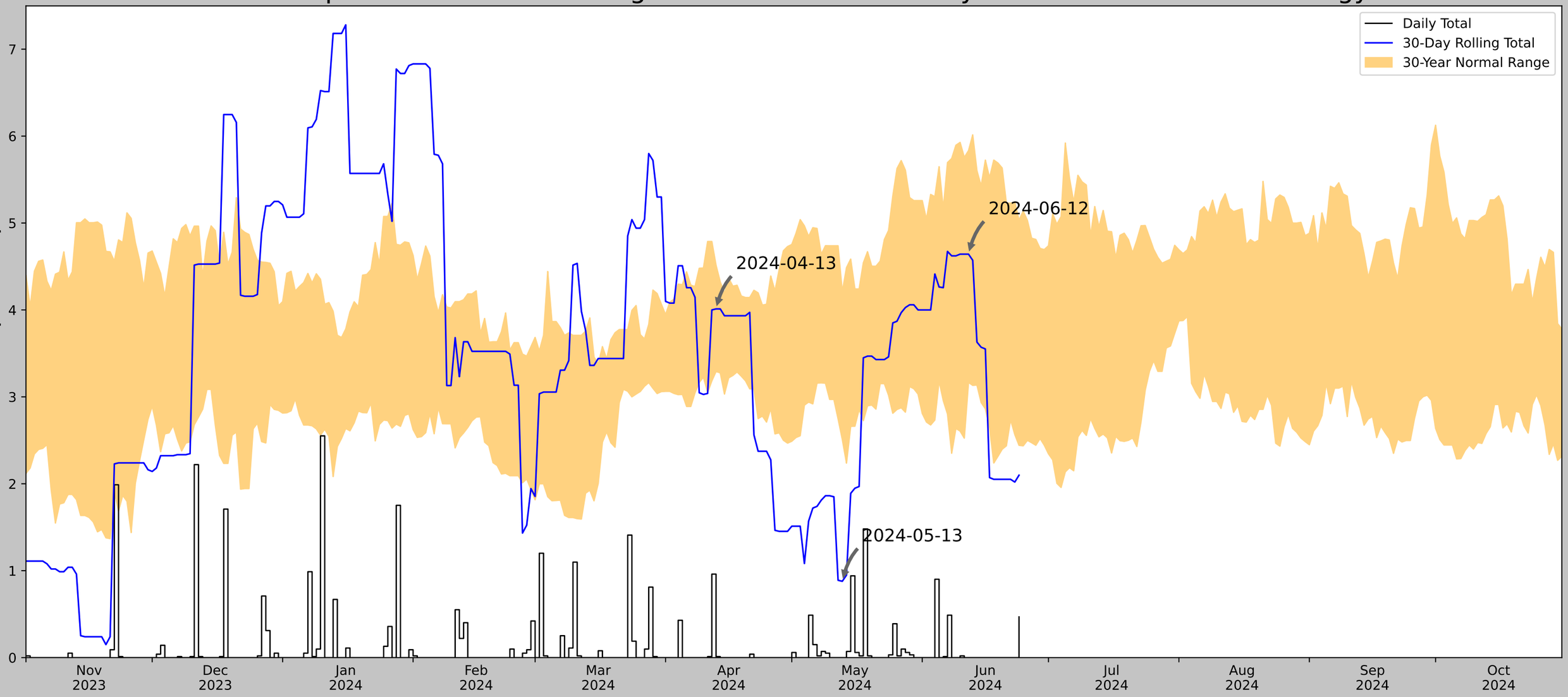
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-12
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-12	3.166142	5.833071	4.641732	Normal	2	3	6
2024-05-13	2.511024	4.208662	0.877953	Dry	1	2	2
2024-04-13	3.291339	4.514567	4.011811	Normal	2	1	2
Result							Normal Conditions - 10

US Army Corps of Engineers

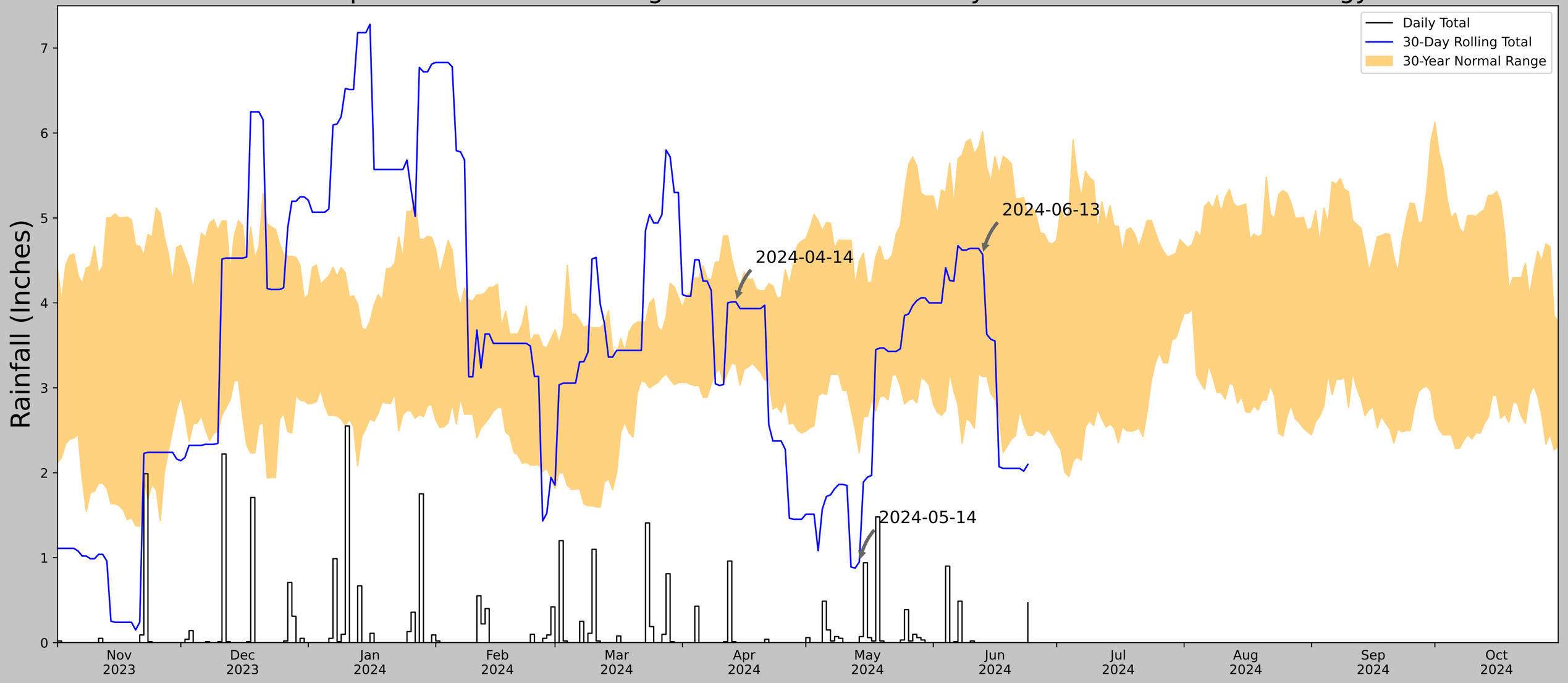
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-13
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-13	3.13189	6.014567	4.570866	Normal	2	3	6
2024-05-14	2.237008	4.487008	0.948819	Dry	1	2	2
2024-04-14	3.275984	4.322047	4.011811	Normal	2	1	2
Result							Normal Conditions - 10

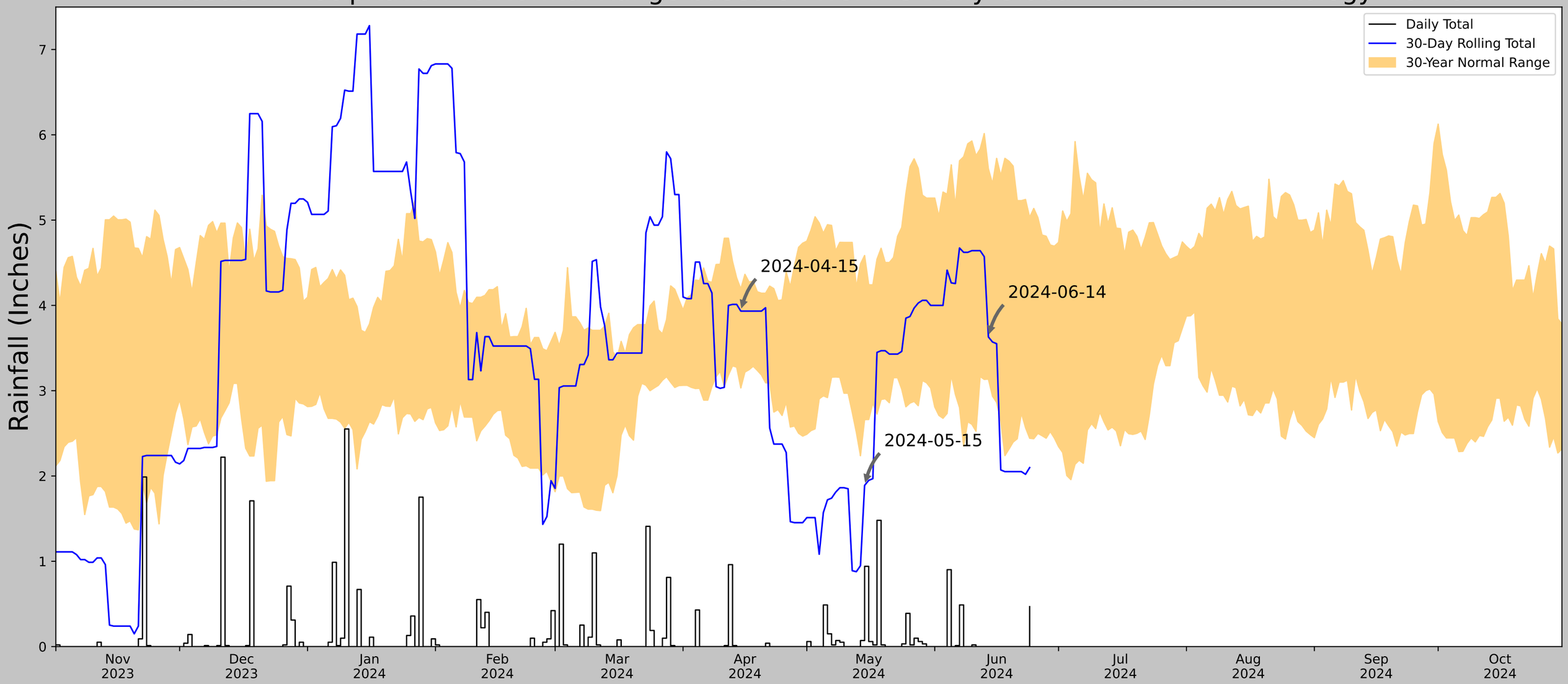
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-14
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-14	3.135827	5.602362	3.629921	Normal	2	3	6
2024-05-15	2.661024	4.585433	1.889764	Dry	1	2	2
2024-04-15	3.03189	4.193701	3.933071	Normal	2	1	2
Result							Normal Conditions - 10

US Army Corps of Engineers

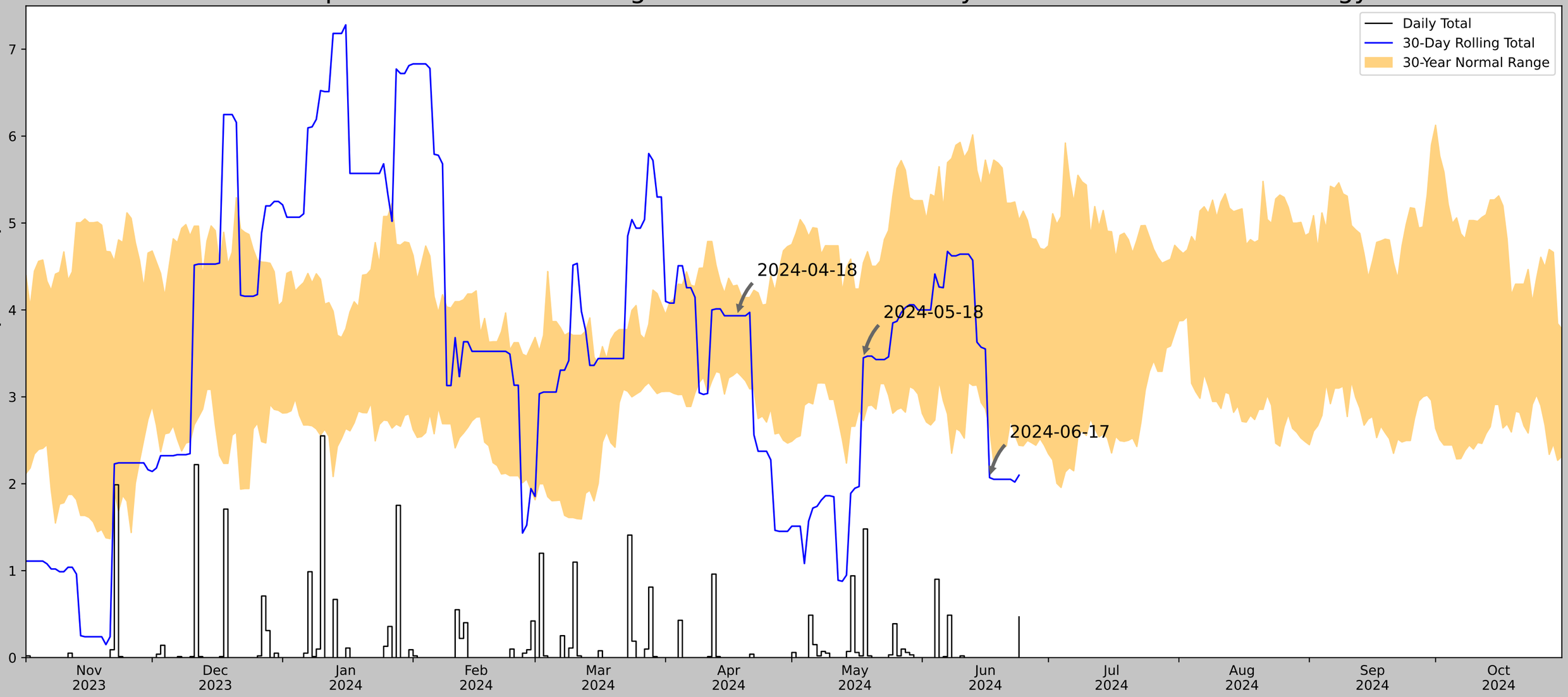
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-17
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-17	2.647638	5.52126	2.070866	Dry	1	3	3
2024-05-18	2.725591	4.541732	3.448819	Normal	2	2	4
2024-04-18	3.286614	4.284252	3.933071	Normal	2	1	2
Result							Drier than Normal - 9

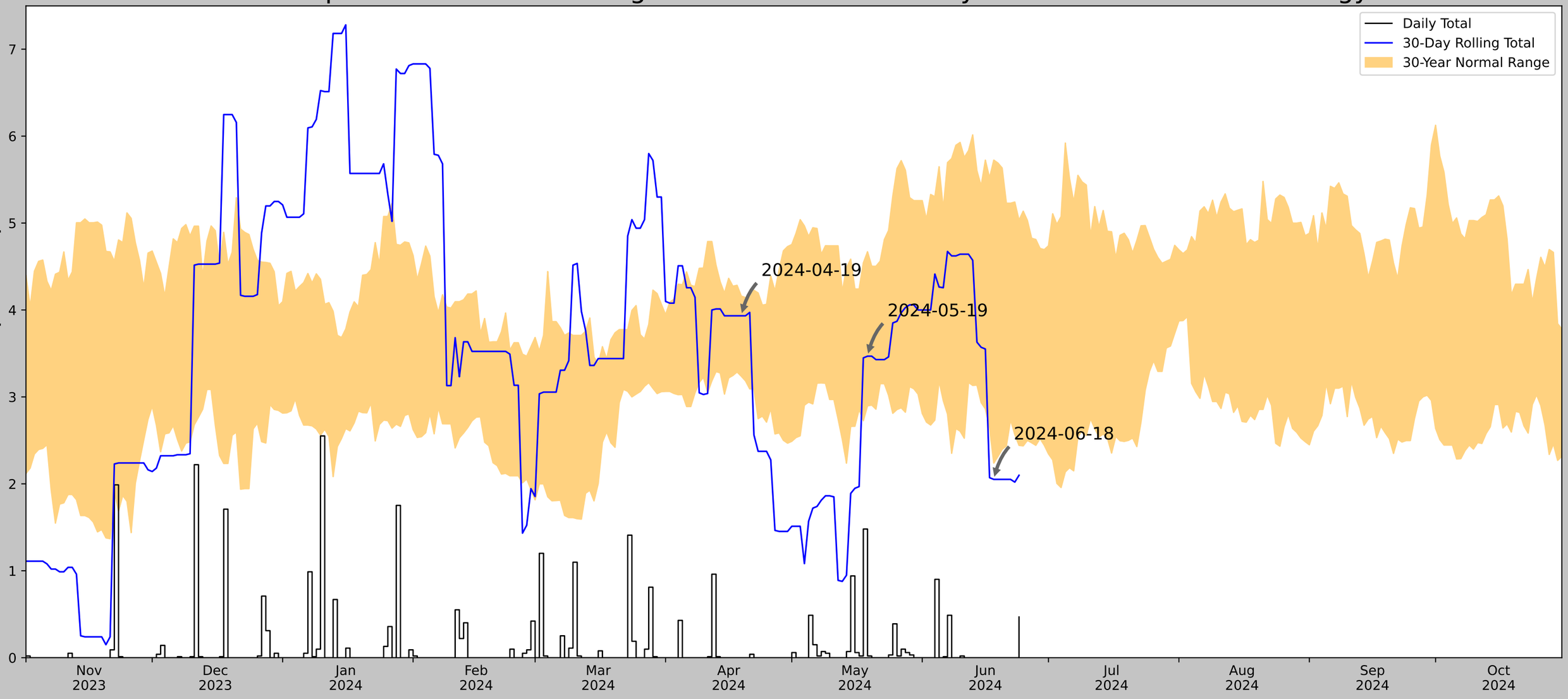
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0



Coordinates	36.6602981, -79.5133263
Observation Date	2024-06-18
Elevation (ft)	694.149
Drought Index (PDSI)	Normal (2024-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-06-18	2.238583	5.72441	2.051181	Dry	1	3	3
2024-05-19	2.89685	4.670079	3.468504	Normal	2	2	4
2024-04-19	3.237795	4.159843	3.933071	Normal	2	1	2
Result							Drier than Normal - 9

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.538	47.167	6.234	11342	88
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Coordinates	36.666523, -79.507490
Observation Date	2024-08-19
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-19	2.738976	4.776772	11.775591	Wet	3	3	9
2024-07-20	2.499606	4.808662	2.858268	Normal	2	2	4
2024-06-20	2.397244	5.633071	2.110236	Dry	1	1	1
Result							Normal Conditions - 14

US Army Corps of Engineers

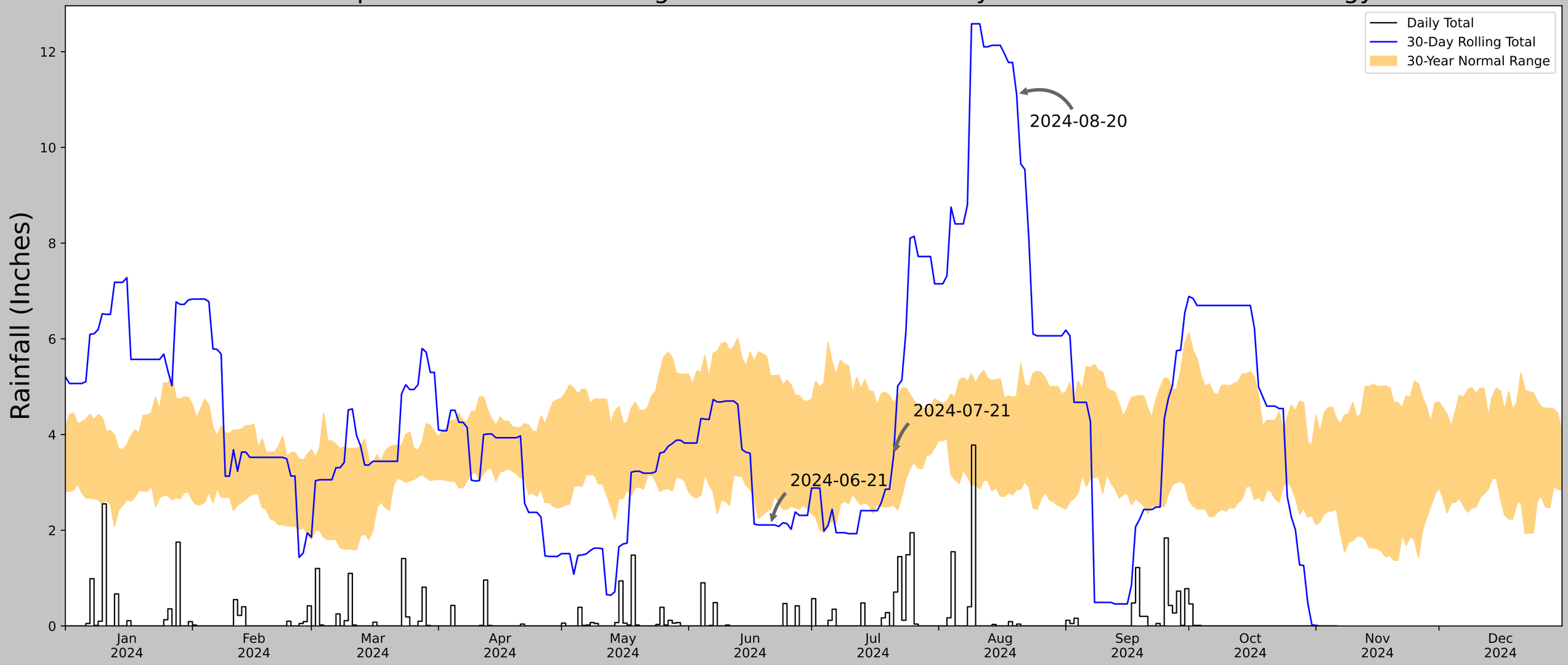
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	85
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	2
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-08-20
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-20	2.856299	4.803543	11.1063	Wet	3	3	9
2024-07-21	2.527165	4.655906	3.566929	Normal	2	2	4
2024-06-21	2.436614	5.228347	2.110236	Dry	1	1	1
Result							Normal Conditions - 14

US Army Corps of Engineers

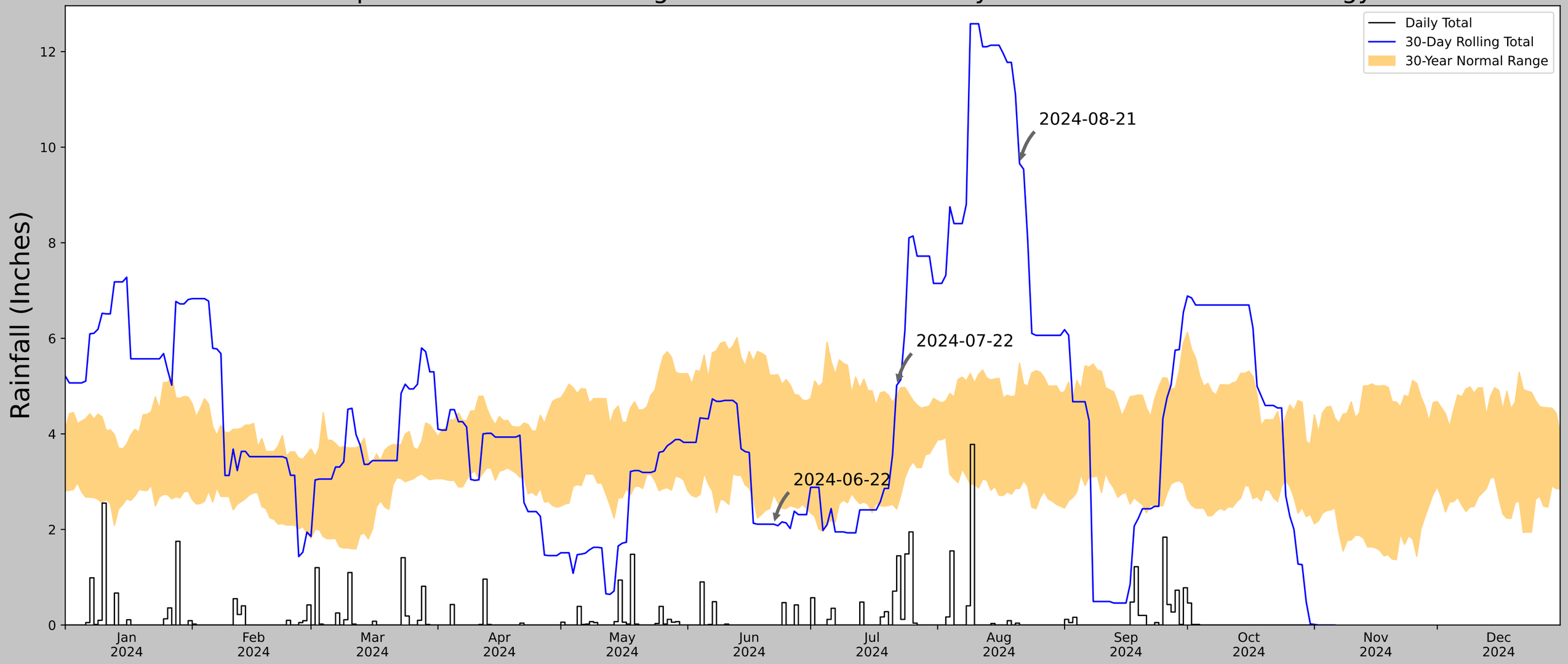
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	85
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	2
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-08-21
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-21	2.856299	5.479134	9.657481	Wet	3	3	9
2024-07-22	2.427953	4.800394	5.015748	Wet	3	2	6
2024-06-22	2.737402	5.228347	2.110236	Dry	1	1	1
Result							Wetter than Normal - 16

US Army Corps of Engineers

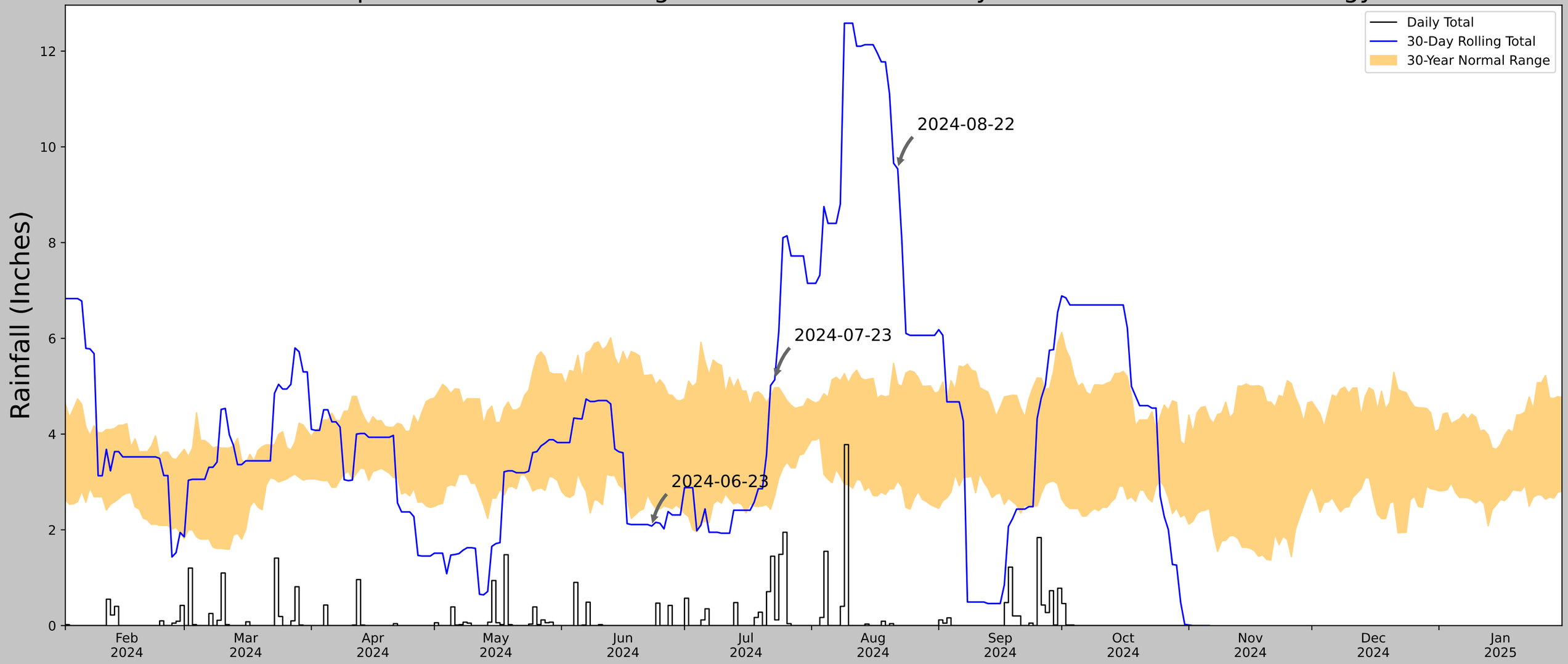
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	84
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	3
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-08-22
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-22	3.02126	5.040158	9.53937	Wet	3	3	9
2024-07-23	2.713386	4.968504	5.133858	Wet	3	2	6
2024-06-23	2.566142	5.242126	2.07874	Dry	1	1	1
Result							Wetter than Normal - 16

US Army Corps of Engineers

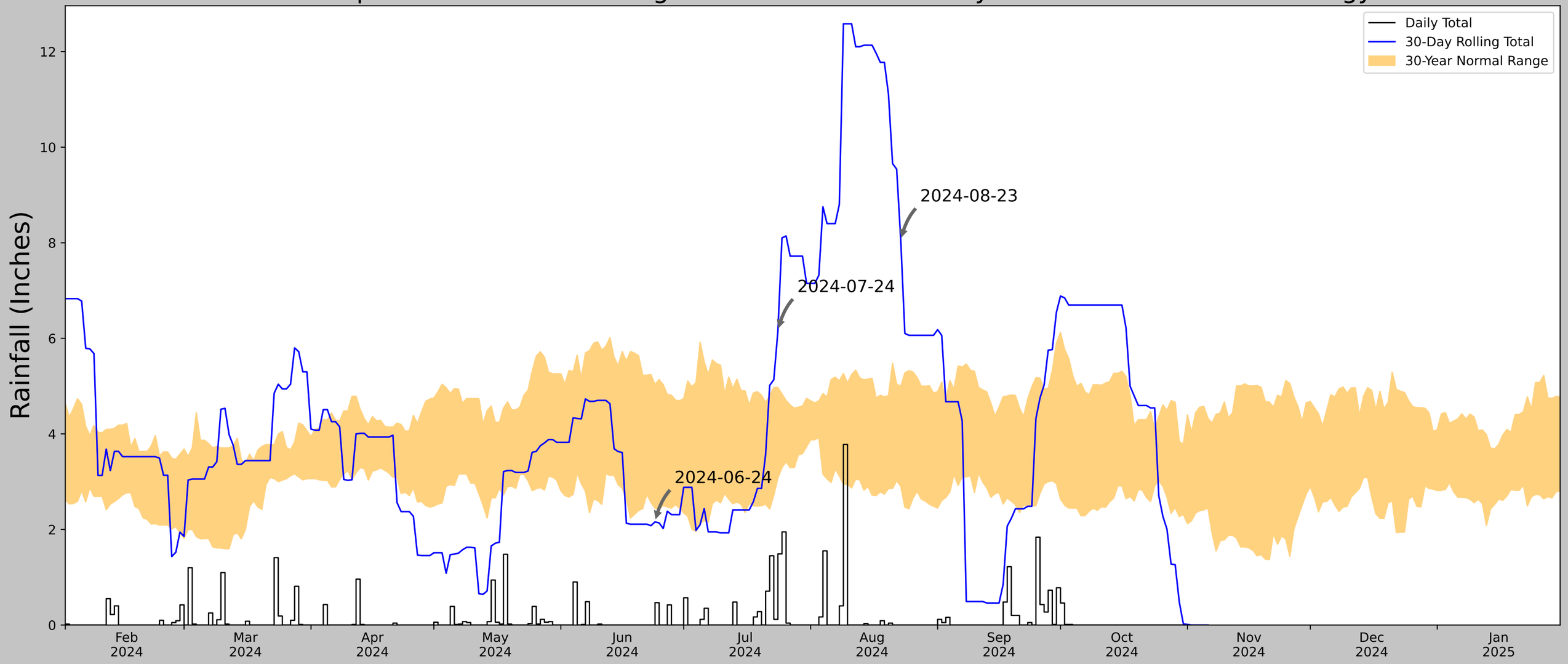
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-08-23
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-23	2.903937	4.996063	8.051181	Wet	3	3	9
2024-07-24	3.078347	4.97126	6.153544	Wet	3	2	6
2024-06-24	2.442126	5.033071	2.15748	Dry	1	1	1
Result							Wetter than Normal - 16

US Army Corps of Engineers

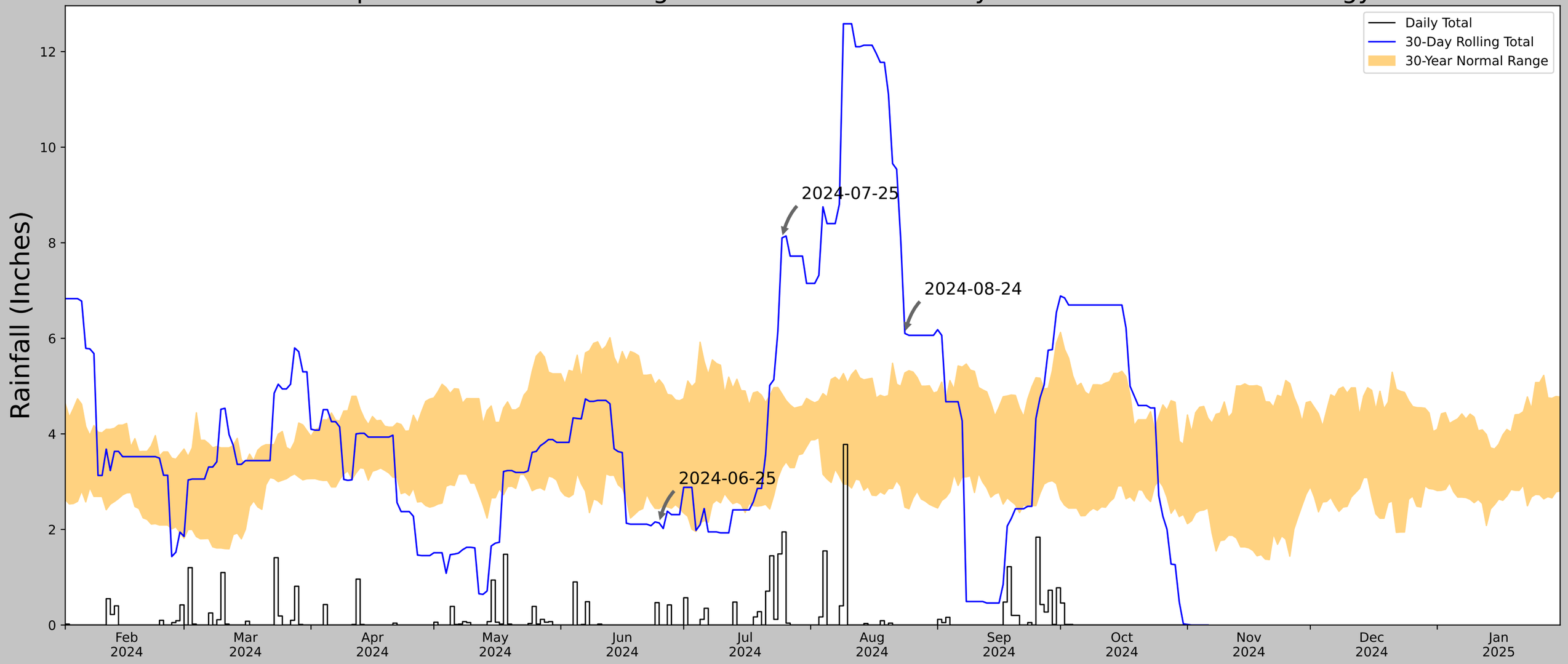
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-08-24
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-24	2.466929	5.277166	6.102362	Wet	3	3	9
2024-07-25	3.293307	4.836221	8.102362	Wet	3	2	6
2024-06-25	2.436614	5.137008	2.137795	Dry	1	1	1
Result							Wetter than Normal - 16

US Army Corps of Engineers

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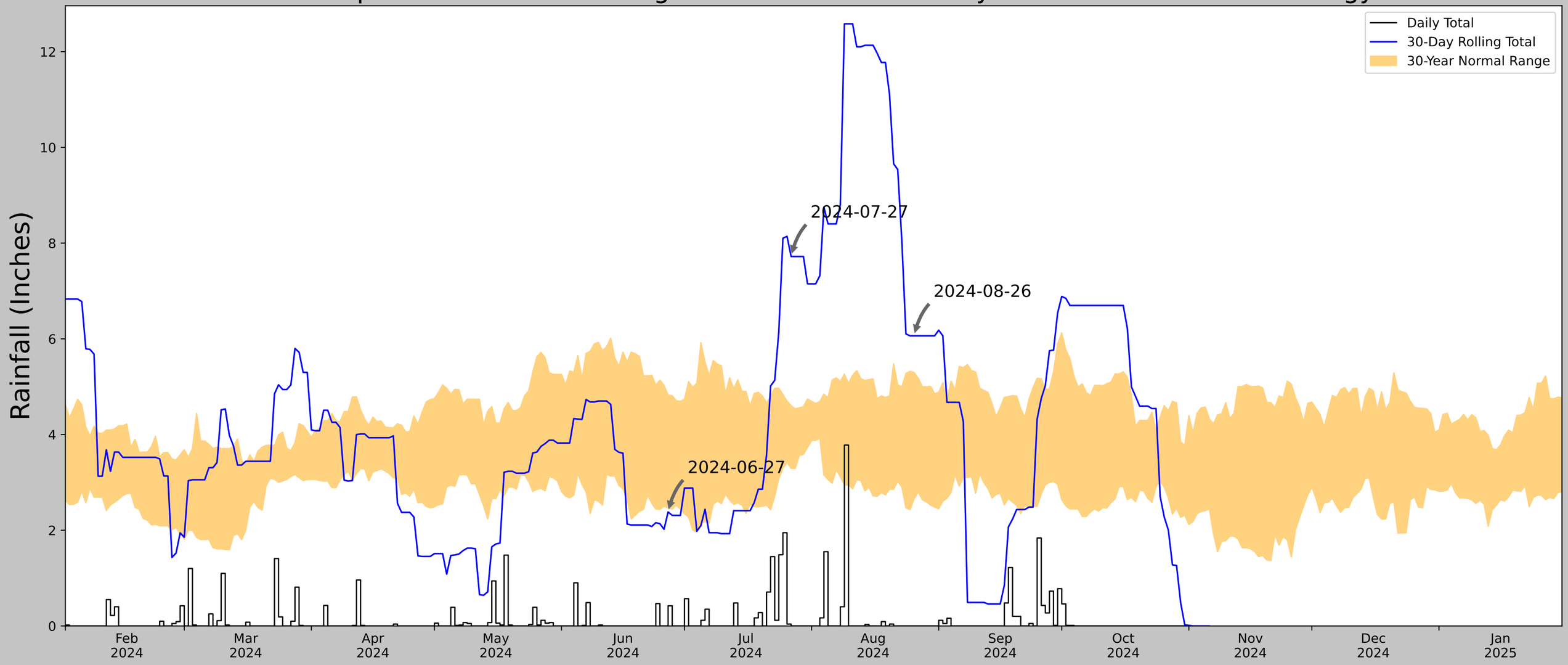
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-08-26
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-26	2.655906	5.294882	6.062992	Wet	3	3	9
2024-07-27	3.293307	4.604331	7.720473	Wet	3	2	6
2024-06-27	2.472441	4.825197	2.38189	Dry	1	1	1
Result							Wetter than Normal - 16

US Army Corps of Engineers

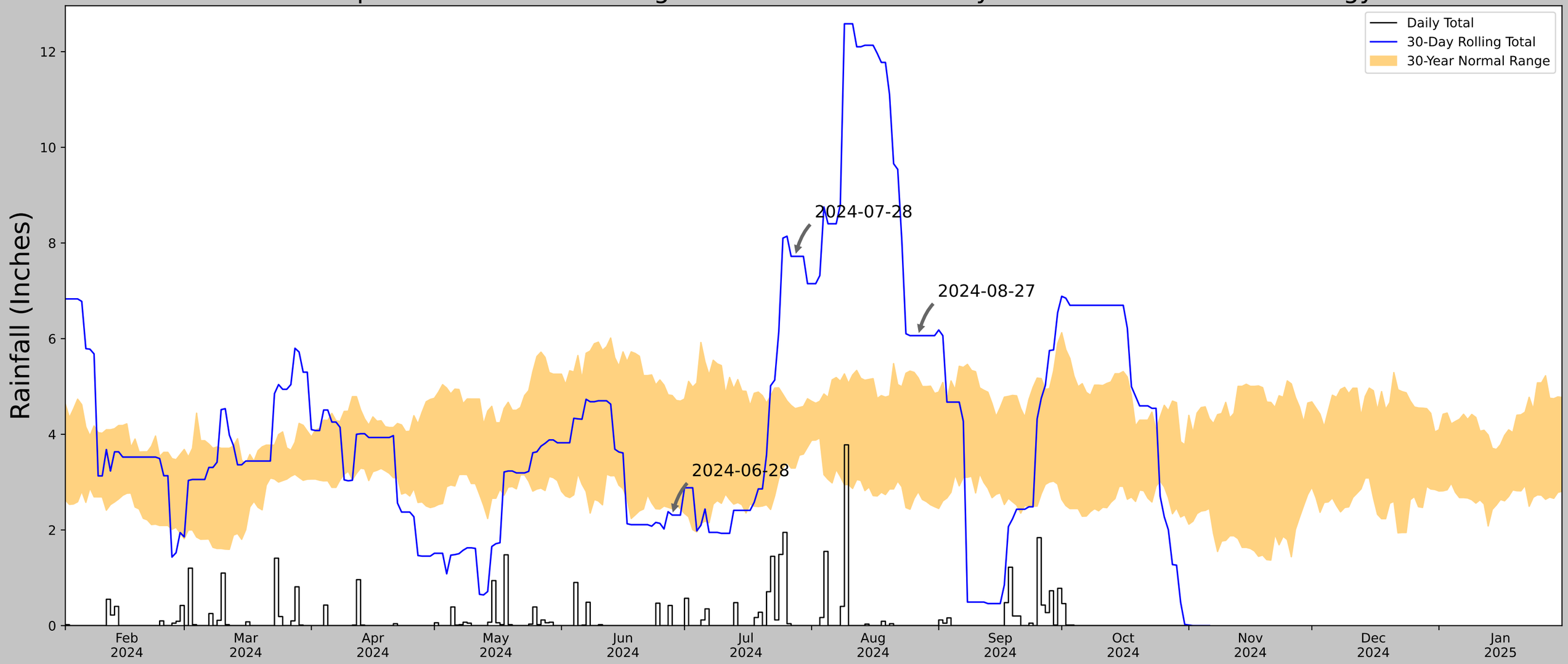
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-08-27
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-27	2.800394	5.181103	6.062992	Wet	3	3	9
2024-07-28	3.293307	4.537402	7.720473	Wet	3	2	6
2024-06-28	2.442913	4.811024	2.311024	Dry	1	1	1
Result							Wetter than Normal - 16

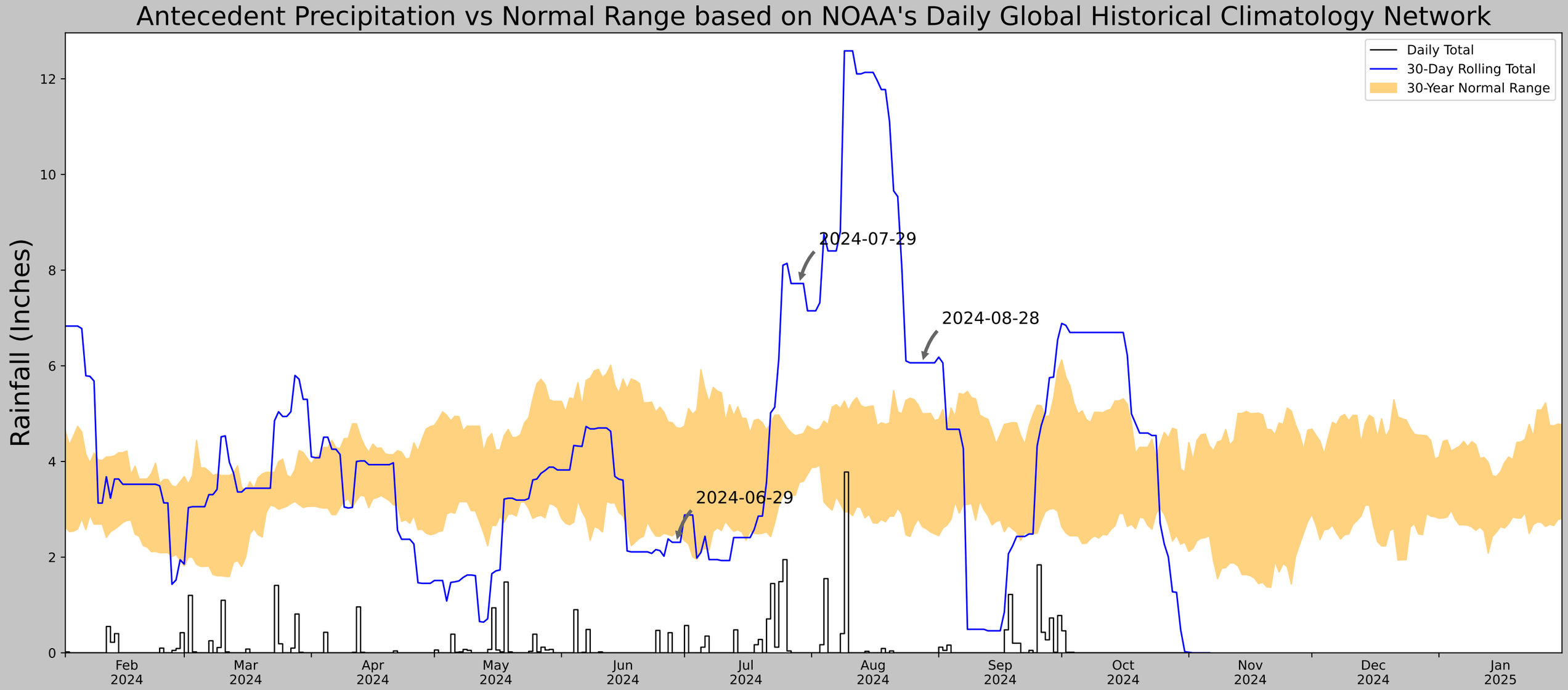
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0



Coordinates	36.666523, -79.507490
Observation Date	2024-08-28
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-28	2.637795	4.999213	6.062992	Wet	3	3	9
2024-07-29	3.562992	4.56063	7.720473	Wet	3	2	6
2024-06-29	2.520866	4.707874	2.311024	Dry	1	1	1
Result							Wetter than Normal - 16

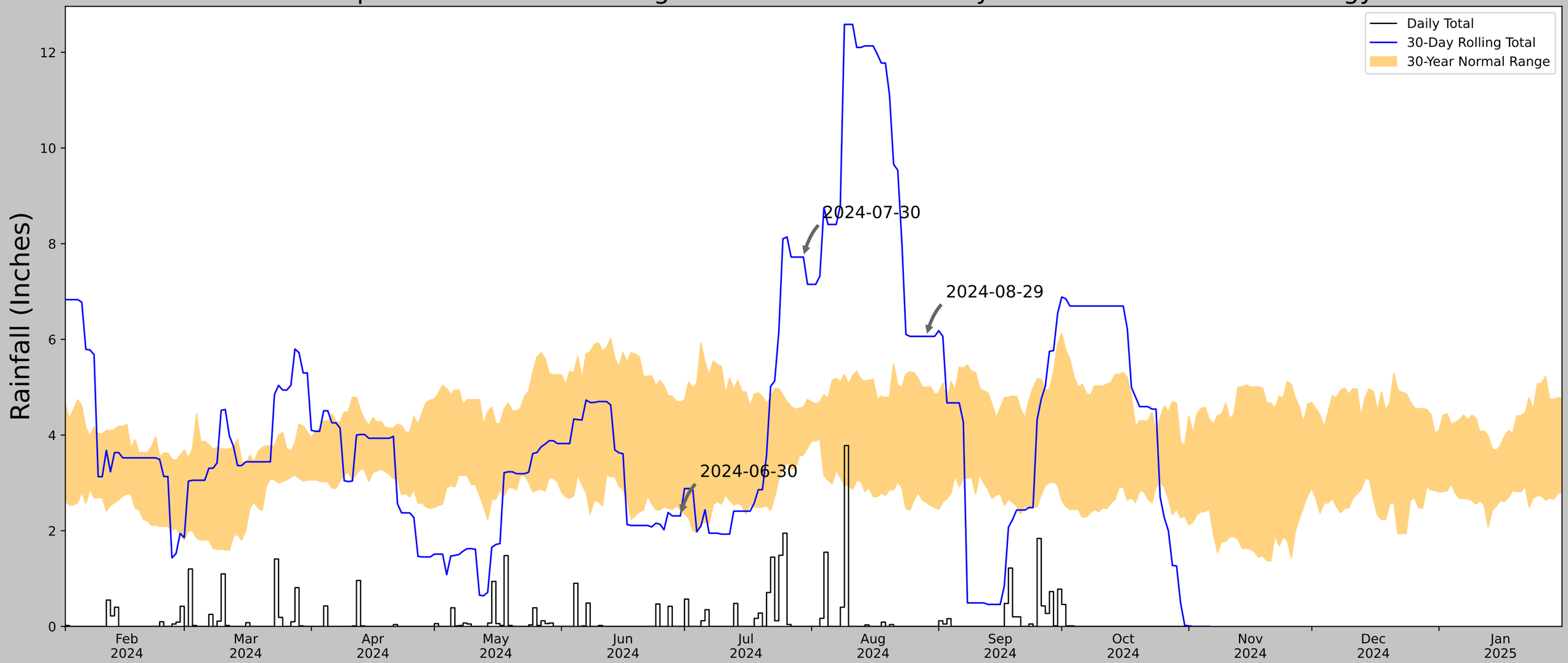
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0



Coordinates	36.666523, -79.507490
Observation Date	2024-08-29
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-29	2.59252	4.999213	6.062992	Wet	3	3	9
2024-07-30	3.585039	4.582284	7.720473	Wet	3	2	6
2024-06-30	2.443701	4.694095	2.311024	Dry	1	1	1
Result							Wetter than Normal - 16

US Army Corps of Engineers

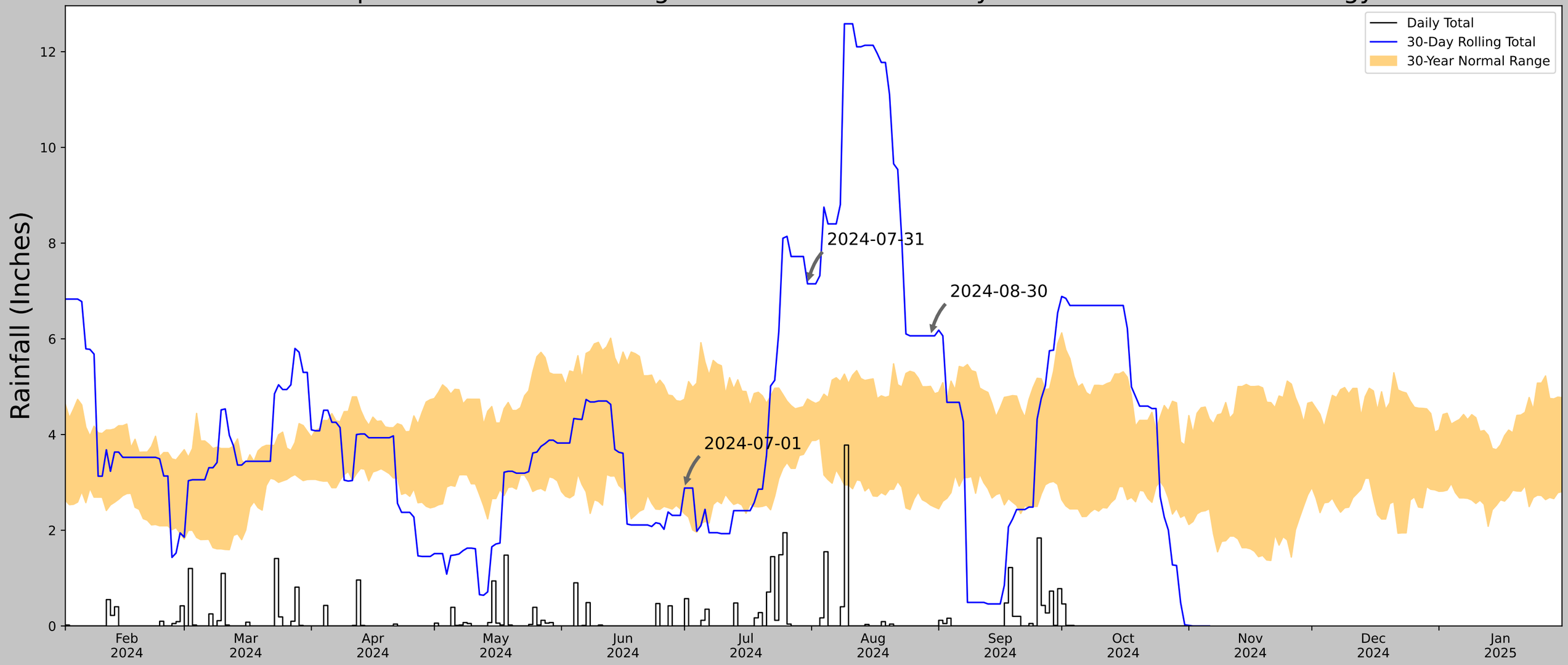
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-08-30
Elevation (ft)	742.562
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-08-30	2.526378	5.00748	6.062992	Wet	3	3	9
2024-07-31	3.731102	4.744095	7.149607	Wet	3	2	6
2024-07-01	2.344488	4.738583	2.88189	Normal	2	1	2
Result							Wetter than Normal - 17

US Army Corps of Engineers

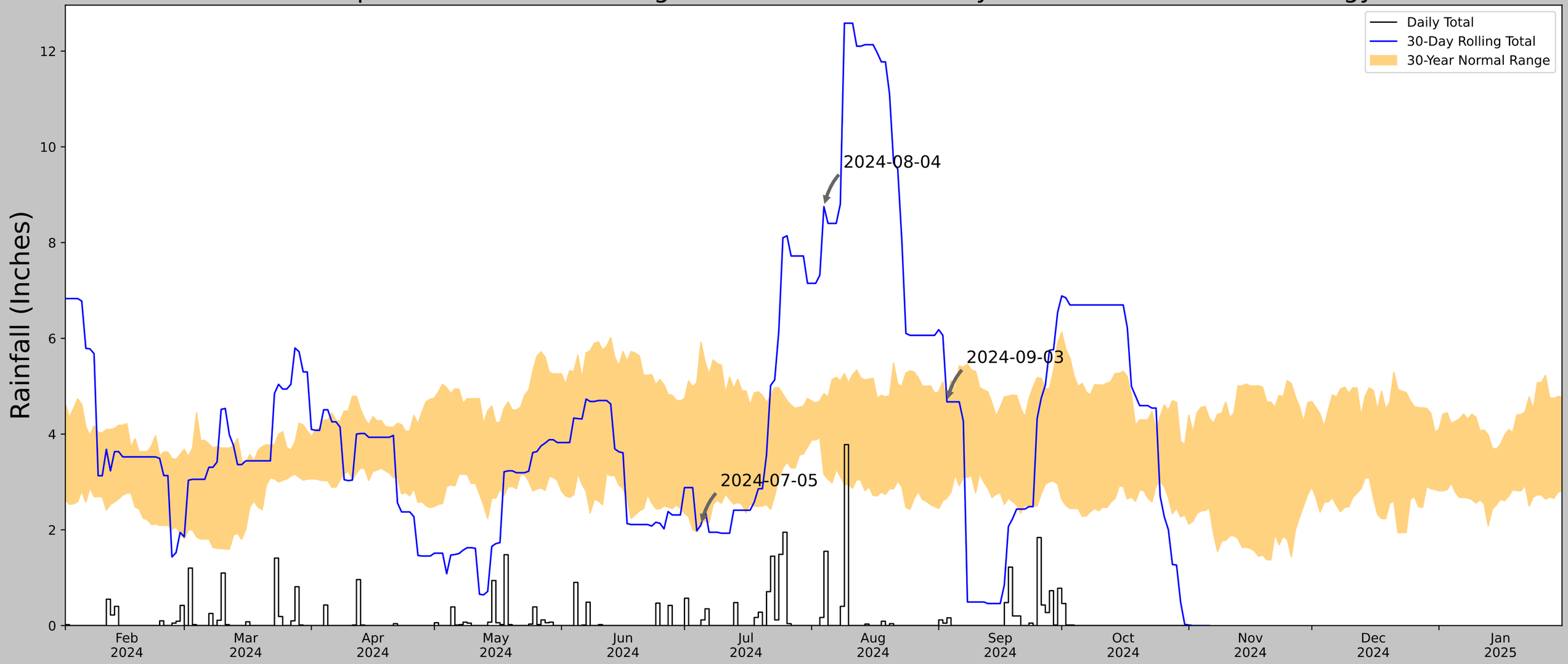
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-09-03
Elevation (ft)	742.562
Drought Index (PDSI)	Mild wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-09-03	2.66811	4.703937	4.673228	Normal	2	3	6
2024-08-04	3.155906	4.844095	8.751969	Wet	3	2	6
2024-07-05	2.137008	5.920473	2.098425	Dry	1	1	1
Result							Normal Conditions - 13

US Army Corps of Engineers

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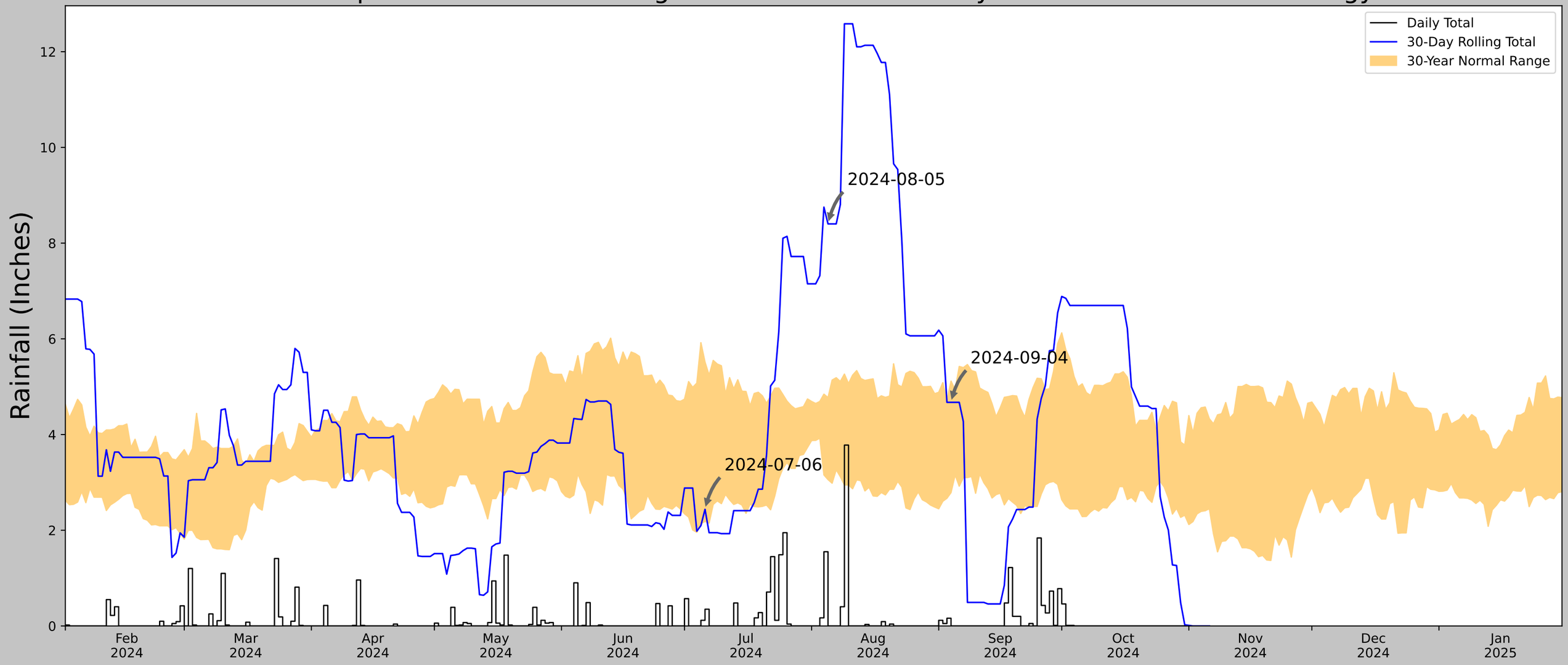
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-09-04
Elevation (ft)	742.562
Drought Index (PDSI)	Mild wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-09-04	2.787008	5.116929	4.673228	Normal	2	3	6
2024-08-05	3.058662	4.771654	8.401575	Wet	3	2	6
2024-07-06	2.185039	5.515355	2.437008	Normal	2	1	2
Result							Normal Conditions - 14

US Army Corps of Engineers

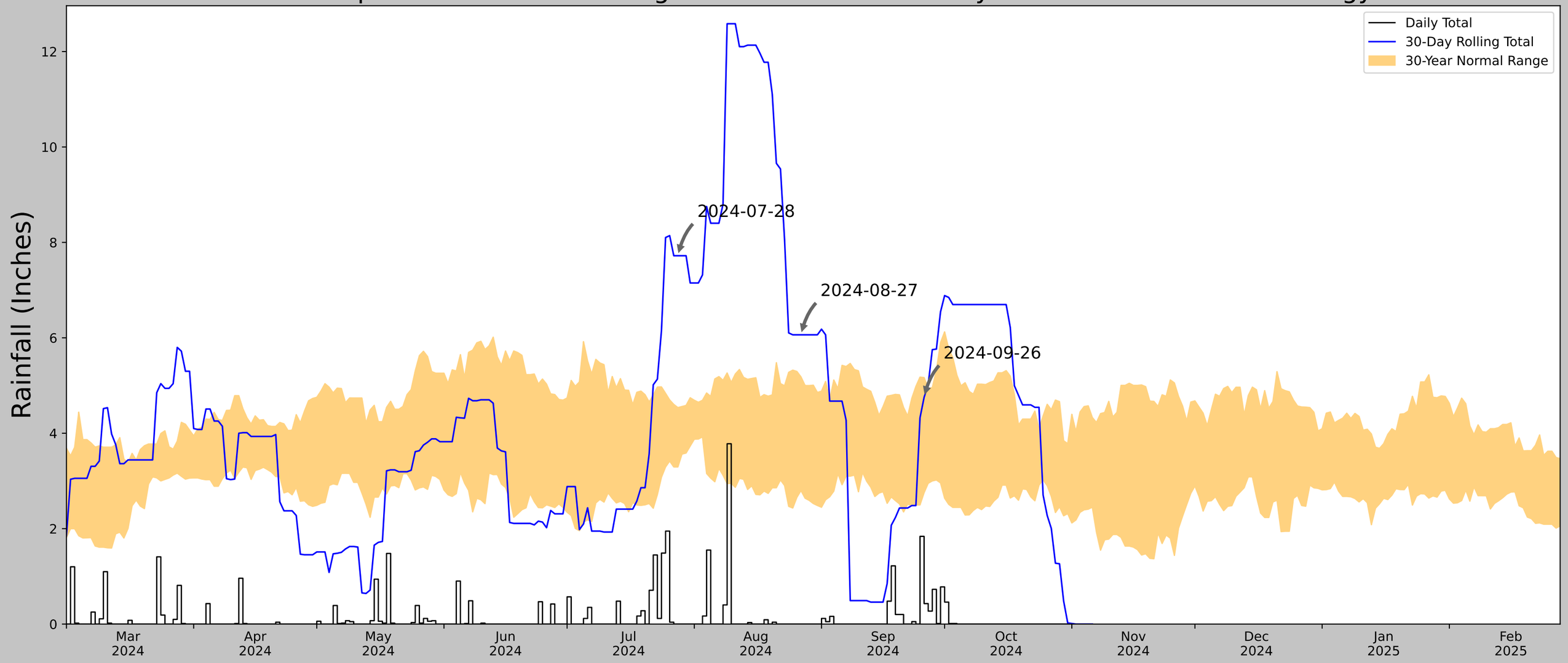
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-09-26
Elevation (ft)	742.562
Drought Index (PDSI)	Mild wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-09-26	2.753543	5.166536	4.751969	Normal	2	3	6
2024-08-27	2.800394	5.181103	6.062992	Wet	3	2	6
2024-07-28	3.293307	4.537402	7.720473	Wet	3	1	3
Result							Wetter than Normal - 15

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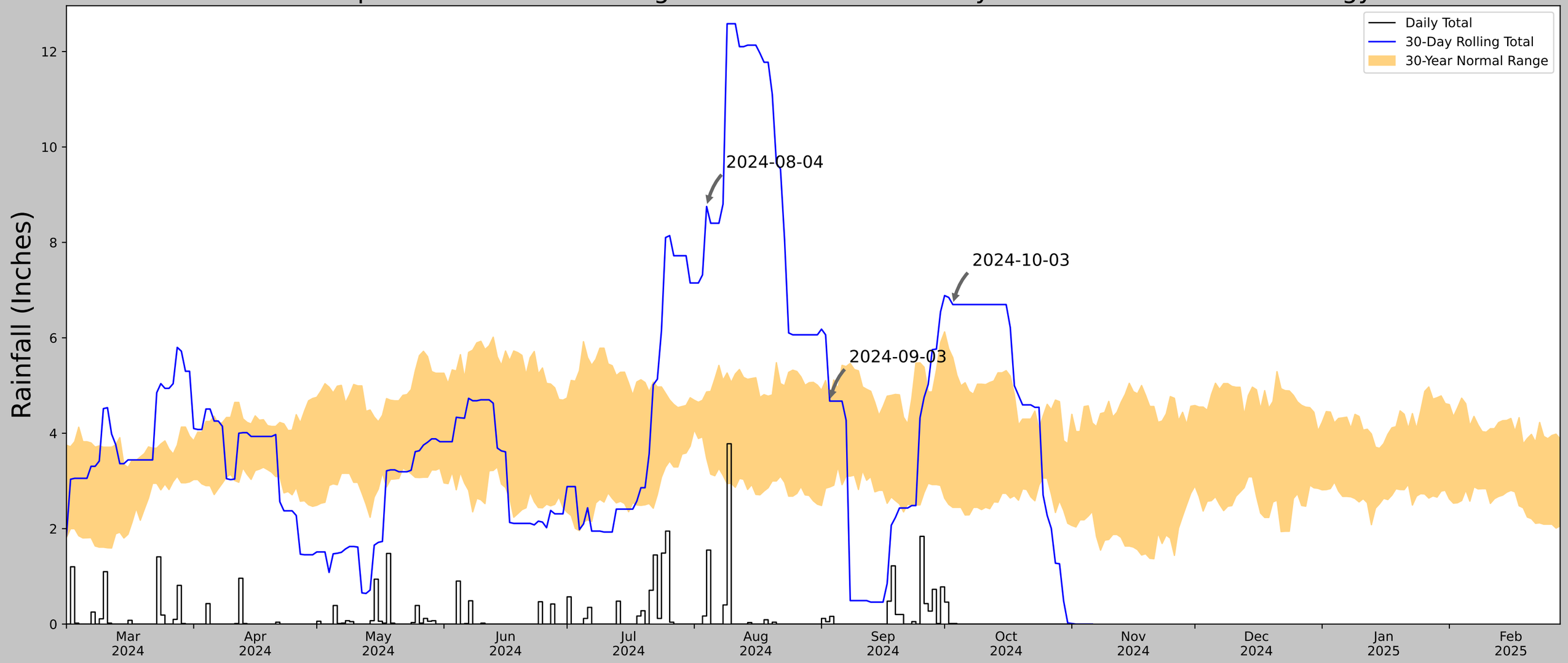
Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11342	83
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	0	2
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	0	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	0	4
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	36.666523, -79.507490
Observation Date	2024-10-03
Elevation (ft)	742.562
Drought Index (PDSI)	Mild wetness (2024-09)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-10-03	2.445669	5.585433	6.696851	Wet	3	3	9
2024-09-03	2.872047	4.703937	4.673228	Normal	2	2	4
2024-08-04	3.472047	4.866142	8.751969	Wet	3	1	3
Result							Wetter than Normal - 16

US Army Corps of Engineers

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Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHATHAM	36.8219, -79.4103	646.982	12.009	95.58	6.552	11336	86
CHATHAM 4.9 ENE	36.8576, -79.3237	692.913	5.387	45.931	2.672	2	1
CHATHAM 5.9 SW	36.7512, -79.4635	812.992	5.703	166.01	3.513	4	0
DANVILLE 5.5 N	36.6627, -79.4199	670.932	11.013	23.95	5.22	1	1
RINGGOLD 2.6 NNW	36.643, -79.312	676.837	13.506	29.855	6.481	1	0
GRETNA 0.5 WNW	36.9545, -79.3724	910.105	9.398	263.123	6.702	4	2
PITTSVILLE 4.5 NNW	37.0508, -79.4822	683.071	16.306	36.089	7.926	1	0
DANVILLE RGNL AP	36.5728, -79.335	551.837	17.709	95.145	9.654	1	0
DANVILLE 2 SE	36.5628, -79.3633	392.06	18.09	254.922	12.752	3	0

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