GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 34.6 - Tributary to Town Creek, NC	**Site Location:** Lat: 36.444453°, Lon: -79.688527°

Photograph: 4

Direction: Upstream.

Note: View of adjacent tributary at confluence (left of photograph 3) with Tributary to Town Creek. Confluence located ~15-20 ft downstream of crossing location

Date: 08/06/2019

Photograph: 5

Direction: Upstream

Note: View of upstream vegetation debris and obstruction in the channel. Debris ~15 to 20 feet upstream of crossing location

Date: 08/06/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 34.6 - Tributary to Town Creek, NC	**Site Location:** Lat: 36.444453°, Lon: -79.688527°

Photograph: 6

Direction: Right Bank.

Note: View of right bank at crossing location. Bank height ~ 6.1 ft. Note sparse vegetation and steepness of bank. Crossing at location of pink flagging tape

Date: 08/06/2019

Photograph: 7

Direction: Left bank.

Note: View of left bank at crossing location immediately upstream of inside bend of meander. Bank height ~ 2.1 ft. Crossing at location of pink flagging tape

Date: 08/06/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 34.6 - Tributary to Town Creek, NC	**Site Location:** Lat: 36.444453°, Lon: -79.688527°

Photograph: 8

Direction: Right bank.

Note: View of exposed roots at right bank at bend, downstream of proposed pipeline crossing. Note adjacent tributary confluence (Photograph 4) at right of photo

Date: 08/06/2019

Photograph: 9

Direction: Right bank.

Note: view of bedrock exposed at bend downstream of proposed pipeline crossing. Rock consists on an Amphibole-Schist with mica, slightly weathered.

Date: 08/06/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 34.6 - Tributary to Town Creek, NC	**Site Location:** Lat: 36.444453°, Lon: -79.688527°

Photograph: 10

Direction: Right bank.

Note: View of right bank at crossing location. Note lack of vegetation along bank and steepness of bank.

Date: 08/06/2019

Photograph: 11

Direction: Left bank.

Note: View of bedrock exposed at bend upstream of proposed pipeline crossing. Rock consists on an Amphibole-Schist with mica, slightly weathered.

Date: 08/06/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 34.6 - Tributary to Town Creek, NC	**Site Location:** Lat: 36.444453°, Lon: -79.688527°

Photograph: 12

Direction: Top-down.

Note: Top-down view of bedrock exposed at bend downstream of proposed pipeline crossing. Sheared surface evidences a dextral fault parallel to outcrop plane.

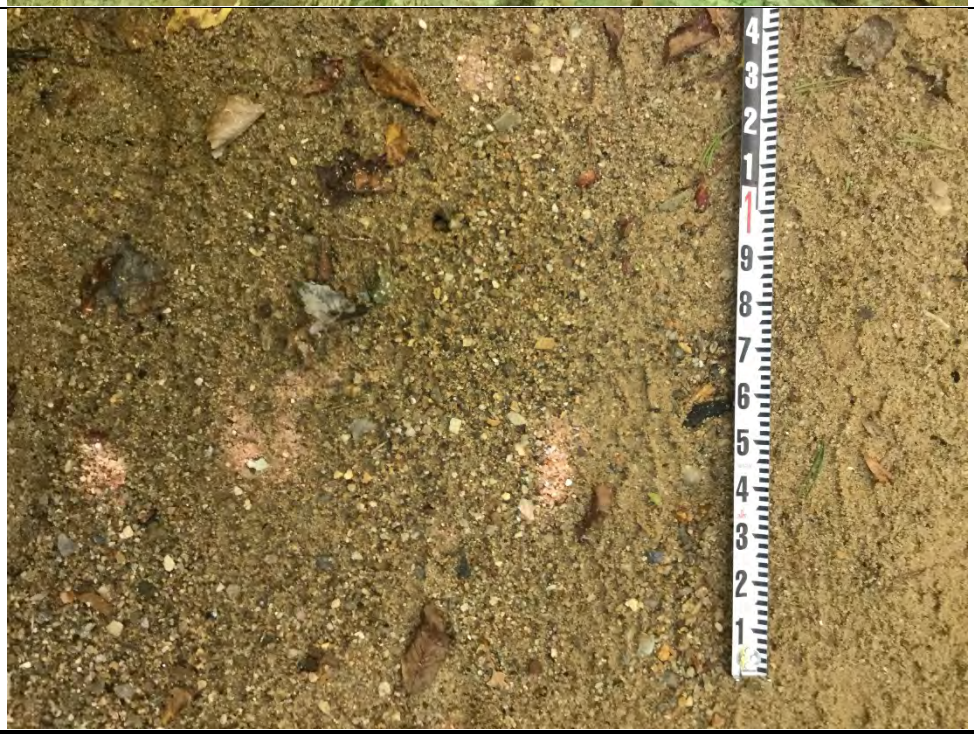
Date: 08/06/2019

Photograph: 13

Direction: Top-down.

Note: Coarse sand and fine gravel inner-bank point bar at upstream bend of proposed pipeline crossing.

Date: 08/06/2019



GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 34.6 - Tributary to Town Creek, NC	**Site Location:** Lat: 36.444453°, Lon: -79.688527°

Photograph: 14

Direction: Downstream.

Note: Mid-channel bar upstream of proposed pipeline crossing with coarse gravel to cobble-sized particles.

Date: 08/06/2019

Photograph: 15

Direction: Top-down.

Note: Bed material 10 ft downstream of proposed pipeline crossing, composed of silty sand with coarse gravel to coarse cobble, predominantly angular particles.

Date: 08/06/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 34.6 - Tributary to Town Creek, NC	**Site Location:** Lat: 36.444453°, Lon: -79.688527°

Photograph: 16

Direction: Left bank.

Note: Benchmark survey point 1, left bank, upstream of proposed pipeline crossing.

Date: 08/06/2019

Photograph: 17

Direction: Left bank.

Note: Benchmark survey point 2, right bank, downstream of proposed pipeline crossing.

Date: 08/06/2019

Stream Name	Tributary to Jones Creek	**GEO_ID**	SC_047
Survey Date	07-August-2019	**MP**	43.7
Start Time	0800	**Drainage Area (sq. mi)**	0.99

- Bankfull (Bkf) width = 16.5 ft; Bkf depth = 1.34 ft; Max Bkf depth = 2.1 ft
- Crossing located, ~60 ft upstream of confluence and ~10 to 20 ft upstream of fallen tree
    - Fallen tree caused aggradation and mid channel bar to development downstream of crossing
- Channel is incised with bank heights between 7 to 10 ft
- Significant large woody debris observed throughout reach
- Current alignment crosses channel obliquely and crosses adjacent tributary beyond left bank
    - Crosses main channel at two locations
    - Tributary channel moderately incised
- D_{50} of bed material = 35mm
- Scour observed
    - D_{max} of pool from woody debris = 2.29 ft
    - D_{max} of bend scour pool = 2.36 ft
    - D_{max} of riffle = 2.1 ft
    - D_{max} at confluence = 2.03 ft
- Left bank at crossing has moderate vegetation and shows evidence of bank erosion and migration
- Riparian buffer > 5 channel widths along right bank to valley wall.
- Flat, vegetated terrain within left and right floodplains;
- Flood-prone area width > 300-ft;

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 43.7 - Tributary to Jones Creek	**Site Location:** Lat: 36.347230°, Lon: -79.606734°

Photograph: 1

Direction: Downstream.

Note: upstream view of site at proposed pipeline crossing. Observed a mid-channel bar.

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 43.7 - Tributary to Jones Creek	Site Location: Lat: 36.347230°, Lon: -79.606734°

Photograph: 2

Direction: Downstream

Note: general upstream view from mid-channel bar with vegetation debris.

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 43.7 - Tributary to Jones Creek	**Site Location:** Lat: 36.347230°, Lon: -79.606734°

Photograph: 3

Direction: Top-down.

Note: bed material on left branch of mid-channel bar.

Date: 08/07/2019

Photograph: 4

Direction: Upstream

Note: riffle at left branch of mid-channel bar.

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 43.7 - Tributary to Jones Creek	**Site Location:** Lat: 36.347230°, Lon: -79.606734°

Photograph: 5

Direction: Upstream

Note: upstream bend view from benchmark point 1.

Date: 08/07/2019

Photograph: 6

Direction: Upstream

Note: downstream confluence of right and left branch of mid-channel bar.

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 43.7 - Tributary to Jones Creek	**Site Location:** Lat: 36.347230°, Lon: -79.606734°

Photograph: 7

Direction: Left bank.

Note: left bank material at proposed pipeline crossing, next to benchmark point 1.

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Proposed pipeline crossings	**Project Number:** TXG0072
Site Name: MP 43.7 - Tributary to Jones Creek	**Site Location:** Lat: 36.347230°, Lon: -79.606734°

Photograph: 8

Direction: Upstream

Note: upstream bend view from benchmark point 1.

Date: 08/07/2019

Photograph: 9

Direction: Downstream.

Note: upstream bend view from benchmark point 2.

Date: 08/07/2019

Stream Name	Tributary to Hogans Creek	**GEO_ID**	SC_050
Survey Date	07-August-2019	**MP**	47.7
Start Time	1300	**Drainage Area (sq. mi)**	0.35

- Bankfull (Bkf) width = 10.6 ft; Bkf depth = 1.21 ft; Max Bkf depth = 1.72 ft
- Measured slope of 0.0058 ft/ft
- Crossing located, ~15 ft upstream of confluence
- Current alignment crosses an adjacent tributary beyond the left bank.
- Current alignment crosses channel at meander bend; right bank is outside meander bend
- Bank heights between 1.5 to 4.5 ft
- Right bank approximately 4.4 ft, bank material stratified with coarse gravel to coarse cobble overlaid by sandy silt
    - Right bank undercut with presence of vegetation and exposed roots
- Bed material consists of coarse gravel to coarse cobble with predominantly angular particles
- D_{50} of bed material = 25mm
- Scour observed
    - D_{max} of bend scour pool = 3.04 ft
    - D_{max} of riffle = 1.8 ft
    - D_{max} at confluence = 1.85 ft
- Accessible, flat, vegetated floodplain > 10 channel widths;
- Riparian buffer > 5 channel widths along right bank to valley wall.
- Flood-prone area width > 300-ft;

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Crossings	**Project Number:** TXG0072
Site Name: MP 47.7 - Tributary to Hogans Creek	**Site Location:** Lat: 36.297591°Lon: -79.581231°

Photograph: 1

Direction: Upstream

Note: View of crossing location located immediately upstream of confluence. Pipeline crosses both channels at location of Geosyntec personnel

Date: 08/07/2019

Photograph: 2

Direction: Upstream

Note: View of crossing location at meander bend on left channel in Photograph 1. Note root wad/woody debris along right bank near crossing location.

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Crossings	**Project Number:** TXG0072
Site Name: MP 47.7 - Tributary to Hogans Creek	**Site Location:** Lat: 36.297591°Lon: -79.581231°

Photograph: 3

Direction: Upstream

Note: View of crossing location on right channel in Photograph 1. Note vegetated banks and floodplain

Date: 08/07/2019

Photograph: 4

Direction: Downstream

Note: View downstream at crossing location. Note root wad and woody debris photographed in Photograph 2 on right bank. MVP inspector standing at crossing locations

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

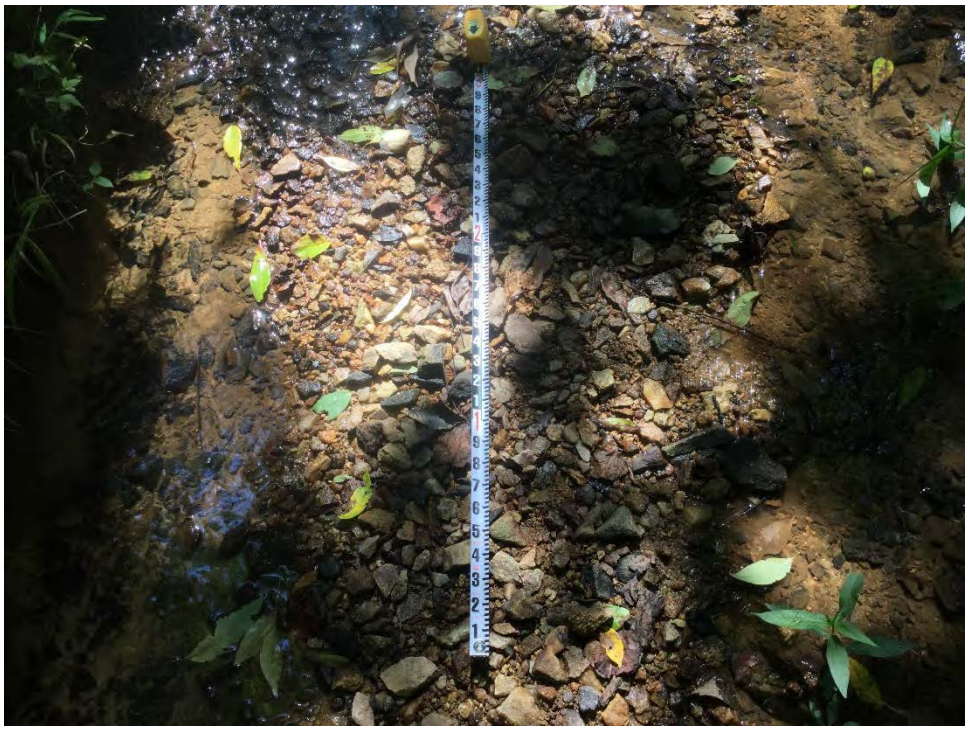
Project: Phase 2, MVP Southgate Stream Crossings	**Project Number:** TXG0072
Site Name: MP 47.7 - Tributary to Hogans Creek	**Site Location:** Lat: 36.297591°Lon: -79.581231°

Photograph: 5

Direction: View of bed material at riffle

Note: Mid-channel bar material at riffle upstream of crossing, composed of coarse gravel to coarse cobbles, predominantly angular particles.

Date: 08/07/2019



Photograph: 6

Direction: Downstream

Note: View of root exposure along right bank at crossing location. Note undercut right bank and vegetated upper bank

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Crossings	**Project Number:** TXG0072
Site Name: MP 47.7 - Tributary to Hogans Creek	**Site Location:** Lat: 36.297591°Lon: -79.581231°

Photograph: 7

Direction: View of right bank at crossing

Note: Stratified material at right bank at crossing. Coarse gravel to coarse cobbles overlaid by sandy silt.

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Crossings	**Project Number:** TXG0072
Site Name: MP 47.7 - Tributary to Hogans Creek	**Site Location:** Lat: 36.297591°Lon: -79.581231°

Photograph: 8

Direction: Downstream

Note: Right bank at crossing. Bank height of 4.4 ft. Note undercutting of lower bank and presence of vegetation of upper bank

Date: 08/07/2019

Photograph: 9

Direction: Downstream

Note: View of riffle located upstream of crossing. Note woody debris within channel and along banks

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Crossings	**Project Number:** TXG0072
Site Name: MP 47.7 - Tributary to Hogans Creek	**Site Location:** Lat: 36.297591°Lon: -79.581231°

Photograph: 10

Direction: Upstream

Note: View of adjacent tributary (right channel in Photograph 1) pipeline crosses. Note woody debris within channel and flat, well vegetated floodplain

Date: 08/07/2019

Photograph: 11

Direction: Downstream

Note: View of channel downstream of confluence with adjacent tributary. Note low right bank height and woody debris within channel downstream

Date: 08/07/2019

GEOSYNTEC CONSULTANTS
Site Photographic Records

Project: Phase 2, MVP Southgate Stream Crossings	**Project Number:** TXG0072
Site Name: MP 47.7 - Tributary to Hogans Creek	**Site Location:** Lat: 36.297591°Lon: -79.581231°

Photograph: 12

Direction: View of BM01

Note: Benchmark survey point near crossing location.

Date: 08/07/2019

Photograph: 11

Direction: Downstream

Note: View of channel downstream of confluence with adjacent tributary. Note low right bank height and woody debris within channel downstream

Date: 08/07/2019

MVP Southgate Project

Docket No. CP19-14-000

Resource Report 7 Table Updates

October 2019

LIST OF TABLES

REVISED [Oct 2019] - Table 7.2-1 Summary of Soil Characteristics and Limitations for the MVP Southgate Project								
Facility / County, State	**Area of Project Workspace within Designated Soil Classification / Limitation (Acres)**							
	Prime Farmland or Farmland of Statewide Importance a/	**Compaction Prone b/**	**Hydric Soils c/**	**Highly Water Erodible d/**	**Highly Wind Erodible e/**	**Shallow Depth to Bedrock f/**	**Low Revegetation Potential g/**	**Stony / Rocky h/**
H-605 Pipeline								
Pittsylvania, Virginia	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H-650 Pipeline								
Pittsylvania, Virginia	360.2	2.6	2.6	9.2	0.0	18.5	19.8	18.5
Rockingham, North Carolina	260.7	2.2	2.6	16.9	0.0	61.6	0.0	0.0
Alamance, North Carolina	284.2	9.2	0.0	0.0	0.0	10.0	0.0	0.0
Cathodic Protection Groundbeds								
Pittsylvania, Virginia	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rockingham, North Carolina	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alamance, North Carolina	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aboveground Facilities								
Pittsylvania, Virginia								
Lambert Compressor Station / Interconnect / MLV 1 (MP 0.0)	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REVISED [Oct 2019] - Table 7.2-1 Summary of Soil Characteristics and Limitations for the MVP Southgate Project								
Facility / County, State	**Area of Project Workspace within Designated Soil Classification / Limitation (Acres)**							
	Prime Farmland or Farmland of Statewide Importance a/	**Compaction Prone b/**	**Hydric Soils c/**	**Highly Water Erodible d/**	**Highly Wind Erodible e/**	**Shallow Depth to Bedrock f/**	**Low Revegetation Potential g/**	**Stony / Rocky h/**
MLV 2 and 3 (MPs 7.4 and 18.3)	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Yards	98.1	0.0	0.0	0.0	0.0	0.0	4.1	0.0
Access Roads	35.1	0.0	0.0	0.3	0.0	0.5	0.6	0.5
Rockingham, North Carolina								
LN 3600 Interconnect (MP 28.2)	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-15 Dan River Interconnect / MLV 4 (MP 30.4)	5.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
MLV 5 (MP 42.2)	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Yards	0.0	10.9	10.9	7.4	0.0	10.9	0.0	18.3
Access Roads	28.8	0.3	0.0	0.5	0.0	5.2	0.0	<0.1
Alamance County, North Carolina								
MLVs 6 and 7 (MPs 55.1 and 68.7)	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T-21 Haw River Interconnect / MLV 8 (MP 73.1)	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Yards	22.1	0.0	0.0	0.0	0.0	10.2	0.0	0.0
Access Roads	18.1	0.4	0.0	0.0	0.0	0.3	0.3	0.0
Caswell County, North Carolina								

REVISED [Oct 2019] - Table 7.2-1

Summary of Soil Characteristics and Limitations for the MVP Southgate Project

Facility / County, State	Area of Project Workspace within Designated Soil Classification / Limitation (Acres)							
	Prime Farmland or Farmland of Statewide Importance a/	Compaction Prone b/	Hydric Soils c/	Highly Water Erodible d/	Highly Wind Erodible e/	Shallow Depth to Bedrock f/	Low Revegetation Potential g/	Stony / Rocky h/
Contractor Yards	23.4	0.0	0.0	0.0	0.0	2.4	0.0	0.0
Access Roads	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Area within Soil Designation	**1,171.8**	**25.7**	**16.2**	**34.4**	**0.0**	**119.6**	**24.8**	**37.3**
Percent of Project Area i/	**80**	**2**	**1**	**2**	**0**	**8**	**2**	**3**

Note: Pig launchers and receivers will be within other aboveground facility sites (i.e., the Lambert Compressor Station, T-15 Dan River Interconnect, and T-21 Haw River Interconnect), therefore, acreages calculations for the pig launchers and receivers are included with those facilities. Mainline Valves (MLVs) 1, 4, and 8 will be within other aboveground facility sites (i.e., the Lambert Compressor Station, T-15 Dan River Interconnect, and T-21 Haw River Interconnect), therefore, acreages calculations for these MLVs are included with those facilities.

a/ Prime farmland and Farmland of Statewide Importance includes soils mapped and designated as prime farmland and farmland of statewide importance by the NRCS (SSURGO reference column "farmlndcl"). Prime Farmland if drained and / or irrigated and / or reclaimed of excess salts and sodium is not included in this acreage. No areas of Farmland of local importance or unique farmland are affected by the Project.
b/ Soils categorized as compaction prone include soils with clay loam or finer texture and a drainage class of poor, somewhat poor, and very poor.
c/ Hydric soils include soils with a USDA NRCS hydric classification – presence of predominantly hydric (67% to 99%) and hydric (100%).
d/ Highly water erodible soils include soils with a K factor that is greater than 0.4.
e/ Highly wind erodible soils include those in wind erodibility groups 1 or 2.
f/ Shallow bedrock soils included soils that have a depth to bedrock of less than 5 feet (60 inches).
g/ Soils with low revegetation potential include soils with an average low rating based on factors including but not limited to drainage class of excessively drained or very poorly drained, K Factor greater than 0.40, and slope greater than 25 percent (see Table 7.2-2 in Appendix 7-A).
h/ Stony/Rocky soils include those with a cobbley, stony, bouldery, shaly, channery, very gravelly, or extremely gravelly modifier to the textural class of the surface layer and / or that have a surface layer that contains greater than 5 percent by weight rock fragments larger than 3 inches.
i/ Totals do not equal 100 percent as not all soils are classified with limitations and certain soils are classified as having multiple limitations. Percent of Project Area based on a total Project area of 1,465.9 acres.

REVISED [Oct 2019] - Table 7.2-2

Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
H-605 Pipeline													
Pittsylvania County, Virginia													
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	0	0.08	446	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
9B	Creedmoor fine sandy loam, 2 to 7 percent slopes	0.08	0.1	58	Yes	3	0.2	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	0.1	0.17	374	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	0.17	0.47	1,609	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
H-650 Pipeline													
Pittsylvania County, Virginia													
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	0 RR	0.13	802	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	0.13	0.3	928	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
8A	Chenneby-Toccoa complex, 0 to 2 percent slopes, frequently flooded	0.3	0.4	495	No	5	0.38	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
9C	Creedmoor fine sandy loam, 7 to 15 percent slopes	0.4	0.45	251	Yes	3	0.2	Predominantly Non-Hydric	Low	>60	No	No	Moderately well drained
22B	Mattaponi sandy loam, 2 to 7 percent slopes	0.45	0.53	444	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Moderately well drained
9C	Creedmoor fine sandy loam, 7 to 15 percent slopes	0.53	0.61	412	Yes	3	0.2	Predominantly Non-Hydric	Low	>60	No	No	Moderately well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	0.61	0.63	132	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	0.63	0.77	732	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
9B	Creedmoor fine sandy loam, 2 to 7 percent slopes	0.77	0.89	616	Yes	3	0.2	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	0.89	0.93	232	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
9B	Creedmoor fine sandy loam, 2 to 7 percent slopes	0.93	1.06	691	Yes	3	0.2	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
9C	Creedmoor fine sandy loam, 7 to 15 percent slopes	1.06	1.15	468	Yes	3	0.2	Predominantly Non-Hydric	Low	>60	No	No	Moderately well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	1.15	1.25 RR	541	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
9C	Creedmoor fine sandy loam, 7 to 15 percent slopes	1.25 RR	1.35 RR	490	Yes	3	0.2	Predominantly Non-Hydric	Low	>60	No	No	Moderately well drained
7A	Chenneby loam, 0 to 2 percent slopes, occasionally flooded	1.35 RR	1.86	2,872	Yes	5	0.44	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
41A	Wehadkee silt loam, 0 to 2 percent slopes, frequently flooded	1.86	2.16	1,589	No	6	0.41	Predominantly Hydric	High	>60	No	Yes	Poorly drained
7A	Chenneby loam, 0 to 2 percent slopes, occasionally flooded	2.16	2.19	152	Yes	5	0.44	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	2.19	2.28	475	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	2.28	2.95	3,536	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	2.95	3.16	1,076	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	3.16	3.18	129	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	3.18	3.29	585	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	3.29	3.41	634	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained

REVISED [Oct 2019] - Table 7.2-2

Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	3.41	3.64	1,182	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	3.64	3.89 RR	1,337	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	3.89 RR	4.15	1,440	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	4.15	4.31	862	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	4.31	4.44	686	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	4.44	4.81	1,958	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	4.81	4.83	69	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
8A	Chenneby-Toccoa complex, 0 to 2 percent slopes, frequently flooded	4.83	5.22	2,073	No	5	0.38	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
1C	Appling sandy loam, 7 to 15 percent slopes	5.22	5.47	1,320	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
1B	Appling sandy loam, 2 to 7 percent slopes	5.47	5.64	910	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
1C	Appling sandy loam, 7 to 15 percent slopes	5.64	5.7	306	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	5.7	6.03	1,747	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	6.03	6.08	284	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
1B	Appling sandy loam, 2 to 7 percent slopes	6.08	6.13	272	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	6.13	6.25	590	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
39	Udorthents, loamy	6.25	6.32	366	No	Unknown	Unknown	Non-Hydric	High	>60	Unknown	Unknown	Unknown
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	6.32	6.57	1,347	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	6.57	6.59	104	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	6.59	6.74	814	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	6.74	6.86	617	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	6.86	6.95	486	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	6.95	6.99	218	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	6.99	7.09	523	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	7.09	7.25	835	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	7.25	7.29	183	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	7.29	7.33	213	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	7.33	7.38	261	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	7.38	7.5	636	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	7.5	7.55	303	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21E	Madison fine sandy loam, 25 to 45 percent slopes	7.55	7.61	276	No	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	7.61	7.71	563	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	7.71	7.78	350	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	7.78	7.84	334	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	7.84	7.97	657	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	7.97	8.02	279	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	8.02	8.12	516	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	8.12	8.2	457	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	8.2	8.33	644	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	8.33	8.46	715	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	8.46	8.5	190	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	8.5	8.53	149	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
8A	Chenneby-Toccoa complex, 0 to 2 percent slopes, frequently flooded	8.53	8.58	292	No	5	0.38	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
21E	Madison fine sandy loam, 25 to 45 percent slopes	8.58	8.65	358	No	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	8.65	8.76	586	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	8.76	8.84	421	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	8.84	8.87	166	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	8.87	8.92	265	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
4C	Cecil sandy loam, 7 to 15 percent slopes	8.92	9.04	644	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	9.04	9.08	207	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	9.08	9.12	180	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	9.12	9.31	1,017	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	9.31	9.37	318	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	9.37	9.41	229	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	9.41	9.47	289	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	9.47	9.52	299	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	9.52	9.61	440	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	9.61	9.76	807	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
11B3	Cullen clay loam, 2 to 7 percent slopes, severely eroded	9.76	9.83	371	No	6	0.27	Non-Hydric	High	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	9.83	9.89	314	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
11C3	Cullen clay loam, 7 to 15 percent slopes, severely eroded	9.89	9.91	89	No	6	0.27	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	9.91	10.02	598	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
4C	Cecil sandy loam, 7 to 15 percent slopes	10.02	10.05	167	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
21D	Madison fine sandy loam, 15 to 25 percent slopes	10.05	10.12	385	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	10.12	10.27	757	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	10.27	10.32	290	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	10.32	10.72	2,113	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	10.72	10.93	1,105	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	10.93	11.26	1,711	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	11.26	11.43	933	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	11.43	11.54	589	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	11.54	11.66	589	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	11.66	11.8	742	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	11.8	11.86	351	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	11.86	11.96	503	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	11.96	12.03	388	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	12.03	12.12	485	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	12.12	12.34	1,159	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	12.34	12.37	156	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	12.37	12.49	620	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	12.49	12.75	1,381	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
8A	Chenneby-Toccoa complex, 0 to 2 percent slopes, frequently flooded	12.75	12.8	257	No	5	0.38	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	12.8	12.86	286	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	12.86	13.05	1,045	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
17B	Hiwassee loam, 2 to 7 percent slopes	13.05	13.21	810	Yes	6	0.21	Non-Hydric	High	>60	No	No	Well drained
18C3	Hiwassee clay loam, 7 to 15 percent slopes, severely eroded	13.21	13.42 RR	1,106	No	6	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
8A	Chenneby-Toccoa complex, 0 to 2 percent slopes, frequently flooded	13.42 RR	13.47 RR	276	No	5	0.38	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	13.47 RR	13.51 RR	207	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	13.51 RR	13.54 RR	186	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	13.54 RR	13.6 RR	296	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	13.6 RR	13.73 RR	700	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	13.73 RR	13.9 RR	901	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	13.9 RR	13.99 RR	465	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	13.99 RR	14.04 RR	289	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained

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5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	14.04 RR	14.14 RR	481	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	14.14 RR	14.22 RR	464	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	14.22 RR	14.35 RR	688	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	14.35 RR	14.39 RR	185	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	14.39 RR	14.42 RR	175	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
11C3	Cullen clay loam, 7 to 15 percent slopes, severely eroded	14.42 RR	14.51 RR	481	No	6	0.27	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	14.51 RR	14.63 RR	635	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	14.63 RR	14.69 RR	293	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
11B3	Cullen clay loam, 2 to 7 percent slopes, severely eroded	14.69 RR	14.73 RR	212	No	6	0.27	Non-Hydric	High	>60	No	No	Well drained
4C	Cecil sandy loam, 7 to 15 percent slopes	14.73 RR	14.69	167	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	14.69	14.72	169	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
9C	Creedmoor fine sandy loam, 7 to 15 percent slopes	14.72	14.78	302	Yes	3	0.2	Predominantly Non-Hydric	Low	>60	No	No	Moderately well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	14.78	14.94	847	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	14.94	15.45	2,720	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	15.45	15.49	178	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	15.49	15.88	2,049	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	15.88	15.95	391	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	15.95	16.02	381	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	16.02	16.06	219	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	16.06	16.22	821	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	16.22	16.48	1,388	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	16.48	16.98	2,601	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	16.98	17.25	1,439	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23D	Mayodan fine sandy loam, 15 to 25 percent slopes	17.25	17.32	390	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	17.32	17.4	397	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23D	Mayodan fine sandy loam, 15 to 25 percent slopes	17.4	17.65 RR	1,324	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
W	Water	17.65 RR	17.67 RR	120	No	Unknown	Unknown	Non-Hydric	Unknown	>60	Unknown	Unknown	Unknown
23D	Mayodan fine sandy loam, 15 to 25 percent slopes	17.67 RR	17.82 RR	788	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	17.82 RR	17.85 RR	187	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23D	Mayodan fine sandy loam, 15 to 25 percent slopes	17.85 RR	17.89 RR	200	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	17.89 RR	17.95 RR	287	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained

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23C	Mayodan fine sandy loam, 7 to 15 percent slopes	17.95 RR	18.01	686	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	18.01	18.4	2,095	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	18.4	18.45	228	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	18.45	18.82	1,990	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	18.82	18.88	294	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	18.88	18.99	585	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	18.99	19.05	340	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	19.05	19.12	327	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	19.12	19.22	519	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	19.22	19.3	442	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	19.3	19.35	268	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	19.35	19.59	1,259	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	19.59	19.64	295	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
4C	Cecil sandy loam, 7 to 15 percent slopes	19.64	19.68	174	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	19.68	19.77	480	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
4C	Cecil sandy loam, 7 to 15 percent slopes	19.77	19.89	656	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	19.89	19.99	496	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	19.99	20.01	142	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	20.01	20.04	135	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	20.04	20.09	251	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	20.09	20.18	521	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	20.18	20.32	735	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	20.32	20.41	448	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	20.41	20.46	288	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	20.46	20.52	297	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	20.52	20.57	294	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	20.57	20.66	429	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	20.66	20.71	291	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	20.71	20.75	200	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	20.75	21	1,345	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	21	21.05	250	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	21.05	21.15	502	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	21.15	21.28	703	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	21.28	21.34	302	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	21.34	21.48	753	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23D	Mayodan fine sandy loam, 15 to 25 percent slopes	21.48	21.56	404	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
29C	Pinkston-Mayodan complex, 7 to 15 percent slopes, very stony	21.56	21.72	866	No	5	0.27	Non-Hydric	Low	18.1	Yes	No	Excessively drained
29D	Pinkston-Mayodan complex, 15 to 35 percent slopes, very stony	21.72	21.76	214	No	5	0.28	Non-Hydric	Low	18.1	Yes	No	Excessively drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	21.76	22.02	1,393	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	22.02	22.07	252	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	22.07	22.15	412	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	22.15	22.2	267	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
28C	Pinkston cobbly sandy loam, 7 to 15 percent slopes	22.2	22.25	284	No	5	0.3	Non-Hydric	Low	18.1	Yes	No	Excessively drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	22.25	22.28	140	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	22.28	22.32	184	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	22.32	22.33	98	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	22.33	22.47 RR	720	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	22.47 RR	22.49 RR	100	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
23D	Mayodan fine sandy loam, 15 to 25 percent slopes	22.49 RR	22.59 RR	555	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
29C	Pinkston-Mayodan complex, 7 to 15 percent slopes, very stony	22.59 RR	22.66 RR	349	No	5	0.27	Non-Hydric	Low	18.1	Yes	No	Excessively drained
29D	Pinkston-Mayodan complex, 15 to 35 percent slopes, very stony	22.66 RR	22.77 RR	603	No	5	0.28	Non-Hydric	Low	18.1	Yes	No	Excessively drained
29C	Pinkston-Mayodan complex, 7 to 15 percent slopes, very stony	22.77 RR	22.83 RR	302	No	5	0.27	Non-Hydric	Low	18.1	Yes	No	Excessively drained
29E	Pinkston-Mayodan complex, 35 to 50 percent slopes, very stony	22.83 RR	22.93 RR	500	No	5	0.28	Non-Hydric	Low	18.1	Yes	No	Excessively drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	22.93 RR	23 RR	398	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
34B	Sheva fine sandy loam, 2 to 7 percent slopes	23 RR	23.08 RR	432	No	3	0.35	Non-Hydric	Moderate	29.1	Yes	No	Moderately well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	23.08 RR	23.2 RR	589	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23D	Mayodan fine sandy loam, 15 to 25 percent slopes	23.2 RR	23.27 RR	397	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	23.27 RR	23.36 RR	470	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	23.36 RR	23.7 RR	1,816	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	23.7 RR	23.78 RR	424	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	23.78 RR	23.91 RR	677	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	23.91 RR	23.89	497	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	23.89	24.01	617	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	24.01	24.3	1,563	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
29C	Pinkston-Mayodan complex, 7 to 15 percent slopes, very stony	24.3	24.39	482	No	5	0.27	Non-Hydric	Low	18.1	Yes	No	Excessively drained
17B	Hiwassee loam, 2 to 7 percent slopes	24.39	24.59	1,023	Yes	6	0.21	Non-Hydric	High	>60	No	No	Well drained
34B	Sheva fine sandy loam, 2 to 7 percent slopes	24.59	24.82	1,212	No	3	0.35	Non-Hydric	Moderate	29.1	Yes	No	Moderately well drained
18C3	Hiwassee clay loam, 7 to 15 percent slopes, severely eroded	24.82	24.83	53	No	6	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
17B	Hiwassee loam, 2 to 7 percent slopes	24.83	24.91	454	Yes	6	0.21	Non-Hydric	High	>60	No	No	Well drained
18C3	Hiwassee clay loam, 7 to 15 percent slopes, severely eroded	24.91	24.94	170	No	6	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
28C	Pinkston cobbly sandy loam, 7 to 15 percent slopes	24.94	25	313	No	5	0.3	Non-Hydric	Low	18.1	Yes	No	Excessively drained
17B	Hiwassee loam, 2 to 7 percent slopes	25	25.08	386	Yes	6	0.21	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	25.08	25.26	955	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
17B	Hiwassee loam, 2 to 7 percent slopes	25.26	25.46	1,067	Yes	6	0.21	Non-Hydric	High	>60	No	No	Well drained
28C	Pinkston cobbly sandy loam, 7 to 15 percent slopes	25.46	25.68	1,137	No	5	0.3	Non-Hydric	Low	18.1	Yes	No	Excessively drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	25.68	25.77	480	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	25.77	25.82	295	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	25.82	26.04	1,164	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	26.04	26.08	218	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
Rockingham County, North Carolina													
CmB	Clover sandy loam, 2 to 8 percent slopes	26.08	26.43	1,834	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	26.43	26.61 RR	930	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmB	Clover sandy loam, 2 to 8 percent slopes	26.61 RR	26.66 RR	259	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	26.66 RR	26.76 RR	550	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CnB2	Clover sandy clay loam, 2 to 8 percent slopes, moderately eroded	26.76 RR	26.84	438	Yes	5	0.3	Non-Hydric	High	>60	No	No	Well drained
CnE2	Clover sandy clay loam, 15 to 25 percent slopes, moderately eroded	26.84	26.97 RR	662	No	5	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	26.97 RR	27.3	1,781	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained
DaA	Dan River loam, 0 to 2 percent slopes, frequently flooded	27.3	27.66 RR	1,893	No	5	0.31	Predominantly Non-Hydric	High	>60	No	No	Well drained
WhB	Wickham sandy loam, mesic, 1 to 4 percent slopes, rarely flooded	27.66 RR	27.92 RR	1,369	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	27.92 RR	28.14 RR	1,192	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CmB	Clover sandy loam, 2 to 8 percent slopes	28.14 RR	28.36 RR	1,177	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	28.36 RR	28.43 RR	343	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CmB	Clover sandy loam, 2 to 8 percent slopes	28.43 RR	28.55 RR	613	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
CmD	Clover sandy loam, 8 to 15 percent slopes	28.55 RR	28.77	1,214	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmE	Clover sandy loam, 15 to 25 percent slopes	28.77	28.87	482	No	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	28.87	28.96	484	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmE	Clover sandy loam, 15 to 25 percent slopes	28.96	29.02	334	No	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	29.02	29.08	304	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmE	Clover sandy loam, 15 to 25 percent slopes	29.08	29.18	552	No	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	29.18	29.25	340	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CnE2	Clover sandy clay loam, 15 to 25 percent slopes, moderately eroded	29.25	29.51	1,523	No	5	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	29.51	29.84	1,759	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
DaA	Dan River loam, 0 to 2 percent slopes, frequently flooded	29.84	30.05	1,103	No	5	0.31	Predominantly Non-Hydric	High	>60	No	No	Well drained
W	Water	30.05	30.1	226	No	Unknown	Unknown	Non-Hydric	Unknown	>60	Unknown	Unknown	Unknown
DaA	Dan River loam, 0 to 2 percent slopes, frequently flooded	30.1	30.21	606	No	5	0.31	Predominantly Non-Hydric	High	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	30.21	30.33	627	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	30.33	30.61	1,486	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	30.61	30.68	378	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	30.68	30.81	680	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	30.81	30.86	280	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
CmD	Clover sandy loam, 8 to 15 percent slopes	30.86	30.89	128	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	30.89	30.97	419	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	30.97	31.03	337	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	31.03	31.11	436	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	31.11	31.14	162	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	31.14	31.18	170	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	31.18	31.23	286	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	31.23	31.33	533	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	31.33	31.53	1,040	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	31.53	31.58	263	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	31.58	31.61	171	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	31.61	31.65	188	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	31.65	31.66	88	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	31.66	31.72	311	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	31.72	31.81	447	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	31.81	32.14	1,751	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	32.14	32.23	486	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	32.23	32.3	353	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	32.3	32.33	176	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	32.33	32.44	587	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	32.44	32.48	183	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	32.48	32.5	117	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	32.5	32.56	327	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	32.56	32.61	283	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
DaA	Dan River loam, 0 to 2 percent slopes, frequently flooded	32.61	32.72	549	No	5	0.31	Predominantly Non-Hydric	High	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	32.72	32.75	147	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	32.75	32.83	436	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	32.83	32.92	468	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	32.92	32.98	349	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
HbA	Hatboro silt loam, 0 to 2 percent slopes, frequently flooded, long duration	32.98	33.01	128	No	5	0.21	Predominantly Hydric	High	>60	No	No	Poorly drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	33.01	33.08	366	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HbA	Hatboro silt loam, 0 to 2 percent slopes, frequently flooded, long duration	33.08	33.11	180	No	5	0.21	Predominantly Hydric	High	>60	No	No	Poorly drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	33.11	33.14	151	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	33.14	33.32	948	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	33.32	33.54	1,141	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
JkB	Jackland fine sandy loam, 2 to 8 percent slopes	33.54	33.59	267	Yes	3	0.3	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	33.59	33.74	800	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
DeD	Devotion fine sandy loam, 6 to 15 percent slopes	33.74	33.79	290	No	3	0.27	Non-Hydric	Moderate	25.2	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	33.79	33.83	190	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
DeD	Devotion fine sandy loam, 6 to 15 percent slopes	33.83	33.89	308	No	3	0.27	Non-Hydric	Moderate	25.2	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	33.89	33.94	257	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	33.94	33.96	133	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	33.96	33.99	137	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	33.99	34.15	843	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	34.15	34.21 RR	309	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	34.21 RR	34.32	661	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	34.32	34.34	97	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	34.34	34.45	584	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	34.45	34.53	395	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	34.53	34.77	1,274	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	34.77	34.84	382	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	34.84	34.94	500	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	34.94	35	316	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	35	35.03	170	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	35.03	35.1	400	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	35.1	35.23	673	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	35.23	35.31	420	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	35.31	35.38	379	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	35.38	35.46	406	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	35.46	35.58	641	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	35.58	35.73	796	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	35.73	35.77	175	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	35.77	35.8	170	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	35.8	35.91	612	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	35.91	36.08	854	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	36.08	36.21	727	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	36.21	36.25	172	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	36.25	36.68	2,316	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	36.68	36.79	560	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	36.79	36.86	394	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	36.86	37.06	1,036	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	37.06	37.11	239	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	37.11	37.19	415	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	37.19	37.21	129	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	37.21	37.32	562	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	37.32	37.34	131	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	37.34	37.39	253	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	37.39	37.55	846	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
PpE2	Poplar Forest sandy clay loam, 15 to 25 percent slopes, moderately eroded	37.55	37.6	257	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
Ud	Udorthents, loamy	37.6	37.67	402	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
PpE2	Poplar Forest sandy clay loam, 15 to 25 percent slopes, moderately eroded	37.67	37.72	243	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	37.72	37.77	250	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	37.77	37.98	1,143	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
CfB	Clifford sandy loam, 2 to 8 percent slopes	37.98	38.03	228	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	38.03	38.17 RR	744	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	38.17 RR	38.22	291	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
PpE2	Poplar Forest sandy clay loam, 15 to 25 percent slopes, moderately eroded	38.22	38.37	815	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	38.37	38.5	646	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	38.5	38.55	264	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
PpB2	Poplar Forest sandy clay loam, 2 to 8 percent slopes, moderately eroded	38.55	38.57	113	Yes	5	0.3	Non-Hydric	High	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	38.57	38.59	122	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	38.59	38.78	1,001	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	38.78	38.84	333	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	38.84	38.86	103	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	38.86	38.94	396	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	38.94	38.99	260	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	38.99	39.02	188	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	39.02	39.07	235	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	39.07	39.14	372	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	39.14	39.17	194	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	39.17	39.25	404	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
DeD	Devotion fine sandy loam, 6 to 15 percent slopes	39.25	39.37	616	No	3	0.27	Non-Hydric	Moderate	25.2	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	39.37	39.46	469	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	39.46	39.65	1,044	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	39.65	39.84	969	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
ChC	Clifford-Urban land complex, 2 to 10 percent slopes	39.84	39.93	466	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
Ur	Urban land	39.93	40.13	1,090	No	Unknown	Unknown	Non-Hydric	High	>60	Unknown	Unknown	Unknown

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
CaD	Casville sandy loam, 8 to 15 percent slopes	40.13	40.13	12	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	40.13	40.27 RR	708	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	40.27 RR	40.49 RR	1,145	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	40.49 RR	40.51 RR	118	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	40.51 RR	40.51	343	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	40.51	40.52	19	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	40.52	40.54	101	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	40.54	40.62	452	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	40.62	40.71	461	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	40.71	40.72	51	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	40.72	40.83	608	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	40.83	41.11	1,459	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
HbA	Hatboro silt loam, 0 to 2 percent slopes, frequently flooded, long duration	41.11	41.18	374	No	5	0.21	Predominantly Hydric	High	>60	No	No	Poorly drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	41.18	41.26	402	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	41.26	41.32	323	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	41.32	41.41	456	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	41.41	41.45	247	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	41.45	41.52	374	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	41.52	41.83	1,595	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	41.83	42.08	1,348	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	42.08	42.11	144	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	42.11	42.16	293	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	42.16	42.21	225	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	42.21	42.31	553	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	42.31	42.45	719	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	42.45	42.5	260	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	42.5	42.63	713	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
PpB2	Poplar Forest sandy clay loam, 2 to 8 percent slopes, moderately eroded	42.63	42.7	385	Yes	5	0.3	Non-Hydric	High	>60	No	No	Well drained
PpD2	Poplar Forest sandy clay loam, 8 to 15 percent slopes, moderately eroded	42.7	42.82	623	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
PpB2	Poplar Forest sandy clay loam, 2 to 8 percent slopes, moderately eroded	42.82	42.85	144	Yes	5	0.3	Non-Hydric	High	>60	No	No	Well drained
PpD2	Poplar Forest sandy clay loam, 8 to 15 percent slopes, moderately eroded	42.85	42.87	125	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
PoE	Poplar Forest sandy loam, 15 to 35 percent slopes	42.87	42.88	36	No	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	42.88	42.93	281	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
PpD2	Poplar Forest sandy clay loam, 8 to 15 percent slopes, moderately eroded	42.93	43.04	545	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
PoE	Poplar Forest sandy loam, 15 to 35 percent slopes	43.04	43.13	515	No	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained
PpB2	Poplar Forest sandy clay loam, 2 to 8 percent slopes, moderately eroded	43.13	43.17	206	Yes	5	0.3	Non-Hydric	High	>60	No	No	Well drained
PpD2	Poplar Forest sandy clay loam, 8 to 15 percent slopes, moderately eroded	43.17	43.21	213	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	43.21	43.29	395	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	43.29	43.36	378	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	43.36	43.46	553	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	43.46	43.51	243	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	43.51	43.6	473	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	43.6	43.64	187	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	43.64	43.67	182	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	43.67	43.75	398	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	43.75	43.79	237	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	43.79	43.87	418	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	43.87	43.92	291	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	43.92	43.97	216	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	43.97	44.06	512	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	44.06	44.09	168	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	44.09	44.15	307	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	44.15	44.21	297	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	44.21	44.45	1,268	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	44.45	44.51	305	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	44.51	44.58	399	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	44.58	44.64	301	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	44.64	44.76	631	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	44.76	45.34	3,067	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
DcB	Davie sandy loam, 2 to 8 percent slopes	45.34	45.41	368	Yes	3	0.28	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
JkD	Jackland fine sandy loam, 8 to 15 percent slopes	45.41	45.47	325	No	3	0.3	Non-Hydric	Moderate	>60	No	Yes	Somewhat poorly drained
DcB	Davie sandy loam, 2 to 8 percent slopes	45.47	45.55	421	Yes	3	0.28	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
JkD	Jackland fine sandy loam, 8 to 15 percent slopes	45.55	45.57	123	No	3	0.3	Non-Hydric	Moderate	>60	No	Yes	Somewhat poorly drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	45.57	45.72	768	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	45.72	45.76	229	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	45.76	45.86	534	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	45.86	45.93	352	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	45.93	45.96	163	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	45.96	45.96	8	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
OkB2	Oak Level sandy clay loam, 2 to 8 percent slopes, moderately eroded	45.96	45.98 RR	84	Yes	6	0.29	Non-Hydric	High	>60	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	45.98 RR	46 RR	98	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	46 RR	46.1 RR	548	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	46.1 RR	46.16 RR	299	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	46.16 RR	46.25 RR	466	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	46.25 RR	46.3 RR	264	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	46.3 RR	46.33	148	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	46.33	46.36	147	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	46.36	46.52	869	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
OkB2	Oak Level sandy clay loam, 2 to 8 percent slopes, moderately eroded	46.52	46.63	592	Yes	6	0.29	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	46.63	46.67	187	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	46.67	46.8	721	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	46.8	46.83	158	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	46.83	46.88	259	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	46.88	46.93	225	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
HbA	Hatboro silt loam, 0 to 2 percent slopes, frequently flooded, long duration	46.93	47.01	434	No	5	0.21	Predominantly Hydric	High	>60	No	No	Poorly drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	47.01	47.08	390	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	47.08	47.33	1,287	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	47.33	47.48	806	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	47.48	47.51	171	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	47.51	47.58	369	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	47.58	47.63	245	No	3	0.22	Non-Hydric	High	15.0	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	47.63	47.73	530	No	3	0.22	Non-Hydric	Moderate	15.0	No	No	Well drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	47.73	47.75	121	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	47.75	47.79	223	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	47.79	47.9	576	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	47.9	47.96	328	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	47.96	48.02	276	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	48.02	48.02	35	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	48.02	48.02	12	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	48.02	48.04	61	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	48.04	48.55	2,736	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
HaB	Halifax sandy loam, 2 to 8 percent slopes	48.55	48.61	281	Yes	3	0.22	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
CeA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	48.61	48.66	269	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HaB	Halifax sandy loam, 2 to 8 percent slopes	48.66	48.68	92	Yes	3	0.22	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
CaB	Casville sandy loam, 2 to 8 percent slopes	48.68	49.24	2,960	Yes	3	0.26	Non-Hydric	High	>60	No	No	Well drained
PcD2	Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	49.24	49.3	327	Yes	5	0.29	Non-Hydric	Moderate	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	49.3	49.67	1,987	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	49.67	49.84 RR	884	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 8 percent slopes	49.84 RR	49.94 RR	506	Yes	3	0.22	Non-Hydric	Moderate	>60	No	No	Moderately well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	49.94 RR	50.06 RR	652	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 8 percent slopes	50.06 RR	50.17 RR	548	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	50.17 RR	50.23 RR	357	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 8 percent slopes	50.23 RR	50.44 RR	1,119	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	50.44 RR	50.52 RR	411	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 8 percent slopes	50.52 RR	50.69 RR	862	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	50.69 RR	50.76 RR	410	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CeA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	50.76 RR	50.81 RR	238	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	50.81 RR	50.98 RR	893	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	50.98 RR	51.18 RR	1,070	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained
MkB2	Mecklenburg sandy clay loam, 2 to 8 percent slopes, moderately eroded	51.18 RR	51.25 RR	363	Yes	6	0.29	Non-Hydric	High	>60	No	No	Well drained
PcD2	Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	51.25 RR	51.3 RR	280	Yes	5	0.29	Non-Hydric	Moderate	>60	No	No	Well drained
MkB2	Mecklenburg sandy clay loam, 2 to 8 percent slopes, moderately eroded	51.3 RR	51.32 RR	119	Yes	6	0.29	Non-Hydric	High	>60	No	No	Well drained
PcD2	Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	51.32 RR	51.44 RR	618	Yes	5	0.29	Non-Hydric	Moderate	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	51.44 RR	51.98	3,000	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
PaD	Pacolet sandy loam, 8 to 15 percent slopes	51.98	52.07 RR	456	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	52.07 RR	52.1 RR	187	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	52.1 RR	52.19 RR	460	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 8 percent slopes	52.19 RR	52.16	97	Yes	3	0.22	Non-Hydric	Moderate	>60	No	No	Moderately well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	52.16	52.17	20	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	52.17	52.36 RR	1,025	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	52.36 RR	52.42 RR	314	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	52.42 RR	52.48 RR	297	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	52.48 RR	52.51	271	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	52.51	52.56	258	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained
PcD2	Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	52.56	52.59	146	Yes	5	0.29	Non-Hydric	Moderate	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	52.59	52.59	3	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained
PcD2	Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	52.59	52.63	224	Yes	5	0.29	Non-Hydric	Moderate	>60	No	No	Well drained
Alamance County, North Carolina													
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	52.63	52.68	245	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	52.68	52.74	296	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	52.74	52.77	172	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	52.77	52.83	314	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	52.83	53.07	1,262	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	53.07	53.09	118	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	53.09	53.18	483	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
EnC	Enon sandy loam, 6 to 10 percent slopes	53.18	53.21	179	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	53.21	53.31	480	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	53.31	53.34	186	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	53.34	53.51	922	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	53.51	53.53	94	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	53.53	53.6	330	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	53.6	53.63	163	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	53.63	53.64	77	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	53.64	53.68	215	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
FgC	Frogsboro sandy loam, 6 to 10 percent slopes	53.68	53.72	181	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained

REVISED [Oct 2019] - Table 7.2-2

Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	53.72	53.74	154	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	53.74	53.77	117	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	53.77	53.8	191	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	53.8	53.89	441	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	53.89	53.9	57	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	53.9	53.92	94	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	53.92	53.94	143	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	53.94	53.96	86	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	53.96	53.99	186	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
FgC	Frogsboro sandy loam, 6 to 10 percent slopes	53.99	54.05	297	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	54.05	54.07	115	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	54.07	54.14	369	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	54.14	54.15	23	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	54.15	54.16	48	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	54.16	54.18	143	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	54.18	54.21	141	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	54.21	54.24	170	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	54.24	54.28	231	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	54.28	54.3	81	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	54.3	54.33	174	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	54.33	54.41	386	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	54.41	54.45	248	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EsD	Enon loam, 10 to 15 percent slopes, very stony	54.45	54.47	98	No	5	0.26	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	54.47	54.51	207	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
EsD	Enon loam, 10 to 15 percent slopes, very stony	54.51	54.53	117	No	5	0.26	Non-Hydric	Moderate	>60	No	No	Well drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	54.53	54.59	316	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	54.59	54.62	157	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
EsD	Enon loam, 10 to 15 percent slopes, very stony	54.62	54.65	123	No	5	0.26	Non-Hydric	Moderate	>60	No	No	Well drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	54.65	54.66	96	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	54.66	54.79	662	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	54.79	54.85	314	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
EnD	Enon sandy loam, 10 to 15 percent slopes	54.85	54.88	168	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	54.88	54.9	97	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
VaC	Vance sandy loam, 6 to 10 percent slopes	54.9	54.93	163	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 10 to 15 percent slopes	54.93	54.97	198	Yes	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
CcC	Cecil sandy loam, 6 to 10 percent slopes	54.97	54.99	107	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	54.99	55.25 RR	1,382	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	55.25 RR	55.29 RR	193	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	55.29 RR	55.3 RR	90	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	55.3 RR	55.32 RR	85	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
VaD	Vance sandy loam, 10 to 15 percent slopes	55.32 RR	55.37 RR	293	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	55.37 RR	55.45 RR	422	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 6 percent slopes	55.45 RR	55.54 RR	460	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	55.54 RR	55.62 RR	404	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 6 percent slopes	55.62 RR	55.64 RR	134	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	55.64 RR	55.51	474	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	55.51	55.56	219	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	55.56	55.6	260	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	55.6	55.8	1,029	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 6 percent slopes	55.8	55.8	3	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
PaE	Pacolet sandy loam, 15 to 45 percent slopes	55.8	55.82	99	No	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
LoE	Louisburg coarse sandy loam, 15 to 45 percent slopes	55.82	55.85	149	No	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
VaD	Vance sandy loam, 10 to 15 percent slopes	55.85	55.91	322	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	55.91	56.28	1,983	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	56.28	56.32	213	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	56.32	56.42 RR	486	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	56.42 RR	56.44 RR	134	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
VaC	Vance sandy loam, 6 to 10 percent slopes	56.44 RR	56.55 RR	615	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	56.55 RR	56.69 RR	744	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	56.69 RR	56.71 RR	112	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	56.71 RR	56.73 RR	96	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	56.73 RR	56.81	709	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	56.81	57.04	1,190	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	57.04	57.05	45	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	57.05	57.12	386	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	57.12	57.15	187	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	57.15	57.19	175	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	57.19	57.26	374	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	57.26	57.33	398	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	57.33	57.44	562	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	57.44	57.56	614	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	57.56	57.85	1,568	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	57.85	57.88	124	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	57.88	57.91	187	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	57.91	58	458	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	58	58	26	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	58	58.03	150	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	58.03	58.04	48	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	58.04	58.08	183	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	58.08	58.11	195	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	58.11	58.15	225	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	58.15	58.27	611	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	58.27	58.28	43	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	58.28	58.47	1,030	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	58.47	58.51	208	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	58.51	58.62 RR	542	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	58.62 RR	58.65 RR	184	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	58.65 RR	58.67 RR	123	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
EnD	Enon sandy loam, 10 to 15 percent slopes	58.67 RR	58.69 RR	108	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	58.69 RR	58.85	1,052	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	58.85	59 RR	815	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	59 RR	59.35 RR	1,846	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	59.35 RR	59.39 RR	201	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	59.39 RR	59.44 RR	259	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	59.44 RR	59.5 RR	341	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	59.5 RR	59.6	385	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	59.6	59.63	144	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	59.63	59.63	9	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	59.63	59.65	95	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	59.65	59.68	182	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	59.68	59.81	697	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	59.81	60.05	1,258	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	60.05	60.22	877	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	60.22	60.67	2,406	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	60.67	60.68	26	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 10 to 15 percent slopes	60.68	60.72 RR	218	Yes	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	60.72 RR	60.76 RR	232	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	60.76 RR	60.82 RR	328	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	60.82 RR	60.84 RR	100	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	60.84 RR	60.86 RR	82	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	60.86 RR	60.91	422	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	60.91	60.95	235	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	60.95	61.01	320	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	61.01	61.08	351	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	61.08	61.1	94	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	61.1	61.15	283	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
IrB	Iredell loam, 2 to 6 percent slopes	61.15	61.31	820	Yes	3	0.31	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	61.31	61.36	296	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	61.36	61.67	1,605	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	61.67	61.76	492	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	61.76	61.83	352	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	61.83	61.9	405	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	61.9	61.93	141	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	61.93	61.95	82	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
IrB	Iredell loam, 2 to 6 percent slopes	61.95	61.99	224	Yes	3	0.31	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	61.99	62.13	771	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	62.13	62.32 RR	1,005	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	62.32 RR	62.33 RR	37	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	62.33 RR	62.38 RR	246	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	62.38 RR	62.38 RR	6	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	62.38 RR	62.39 RR	80	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	62.39 RR	62.44 RR	244	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	62.44 RR	62.52 RR	403	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
VaD	Vance sandy loam, 10 to 15 percent slopes	62.52 RR	62.54 RR	118	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	62.54 RR	62.56 RR	121	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	62.56 RR	62.58	518	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	62.58	62.63	306	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	62.63	62.69	312	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	62.69	62.72	147	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	62.72	63 RR	1,490	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	63 RR	63.09 RR	479	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	63.09 RR	63.22 RR	681	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	63.22 RR	63.27 RR	275	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	63.27 RR	63.32 RR	247	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	63.32 RR	63.34 RR	106	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	63.34 RR	63.37 RR	139	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
LoE	Louisburg coarse sandy loam, 15 to 45 percent slopes	63.37 RR	63.44 RR	368	No	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	63.44 RR	63.35	299	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	63.35	63.45	557	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
VaC	Vance sandy loam, 6 to 10 percent slopes	63.45	63.46	57	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
VaD	Vance sandy loam, 10 to 15 percent slopes	63.46	63.51	246	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	63.51	63.55	225	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
VaD	Vance sandy loam, 10 to 15 percent slopes	63.55	63.59	188	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained
W	Water	63.59	63.64	273	No	Unknown	Unknown	Non-Hydric	Unknown	>60	Unknown	Unknown	Unknown
EnD	Enon sandy loam, 10 to 15 percent slopes	63.64	63.69	256	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
EnC	Enon sandy loam, 6 to 10 percent slopes	63.69	63.73	247	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	63.73	63.78	232	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	63.78	63.85	351	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	63.85	63.85	1	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	63.85	63.85	46	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	63.85	63.9	231	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	63.9	64 RR	558	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	64 RR	64.01 RR	8	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	64.01 RR	64.03 RR	110	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	64.03 RR	64.06 RR	202	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	64.06 RR	64.09 RR	141	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	64.09 RR	64.11	202	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	64.11	64.32	1,115	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	64.32	64.4	395	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
VaC	Vance sandy loam, 6 to 10 percent slopes	64.4	64.42	100	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	64.42	64.52	557	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	64.52	64.58	312	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	64.58	64.67	456	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	64.67	64.7	151	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	64.7	64.95 RR	1,363	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	64.95 RR	64.97 RR	66	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	64.97 RR	65.03 RR	307	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	65.03 RR	65.09 RR	329	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	65.09 RR	65.1 RR	88	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	65.1 RR	65.12 RR	89	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
VaD	Vance sandy loam, 10 to 15 percent slopes	65.12 RR	65.16 RR	220	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	65.16 RR	65.26 RR	516	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	65.26 RR	65.3 RR	234	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
VaC	Vance sandy loam, 6 to 10 percent slopes	65.3 RR	65.41 RR	534	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	65.41 RR	65.48 RR	374	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	65.48 RR	65.51 RR	166	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
HeC	Helena sandy loam, 6 to 10 percent slopes	65.51 RR	65.56 RR	265	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	65.56 RR	65.52	268	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	65.52	65.53	51	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	65.53	65.58	279	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	65.58	65.64	302	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	65.64	65.64	10	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
HeC	Helena sandy loam, 6 to 10 percent slopes	65.64	65.68	229	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
IrB	Iredell loam, 2 to 6 percent slopes	65.68	65.82	746	Yes	3	0.31	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	65.82	65.86	180	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	65.86	65.96 RR	554	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	65.96 RR	65.98 RR	66	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	65.98 RR	66 RR	128	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	66 RR	66.02 RR	103	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
VaB	Vance sandy loam, 2 to 6 percent slopes	66.02 RR	66.28 RR	1,396	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
VaC	Vance sandy loam, 6 to 10 percent slopes	66.28 RR	66.32 RR	214	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	66.32 RR	66.48 RR	811	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	66.48 RR	66.56 RR	429	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	66.56 RR	66.6 RR	208	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	66.6 RR	66.63 RR	186	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
W	Water	66.63 RR	66.64 RR	49	No	Unknown	Unknown	Non-Hydric	Unknown	>60	Unknown	Unknown	Unknown
VaC	Vance sandy loam, 6 to 10 percent slopes	66.64 RR	66.72 RR	403	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	66.72 RR	66.79 RR	378	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
HeB	Helena sandy loam, 2 to 6 percent slopes	66.79 RR	66.91 RR	605	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	66.91 RR	66.94 RR	209	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	66.94 RR	67.02 RR	375	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	67.02 RR	67.07 RR	310	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	67.07 RR	67.19 RR	617	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	67.19 RR	67.4 RR	1,095	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	67.4 RR	67.44 RR	225	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	67.44 RR	67.47 RR	156	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
VaD	Vance sandy loam, 10 to 15 percent slopes	67.47 RR	67.51 RR	188	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
VaB	Vance sandy loam, 2 to 6 percent slopes	67.51 RR	67.55 RR	244	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
VaC	Vance sandy loam, 6 to 10 percent slopes	67.55 RR	67.6 RR	245	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 6 percent slopes	67.6 RR	67.62 RR	131	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 10 to 15 percent slopes	67.62 RR	67.5	139	Yes	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 6 percent slopes	67.5	67.54	237	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 10 to 15 percent slopes	67.54	67.59	269	Yes	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	67.59	67.62	124	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 10 to 15 percent slopes	67.62	67.64	121	Yes	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	67.64	67.71	370	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
PaD	Pacolet sandy loam, 10 to 15 percent slopes	67.71	67.73	122	Yes	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	67.73	67.78	255	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	67.78	67.84	326	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	67.84	67.88	176	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 10 to 15 percent slopes	67.88	67.9	137	Yes	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
PaE	Pacolet sandy loam, 15 to 45 percent slopes	67.9	67.93	134	No	3	0.33	Non-Hydric	Moderate	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	67.93	67.97	207	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	67.97	68.06	496	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	68.06	68.08	110	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	68.08	68.14	331	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	68.14	68.19	233	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	68.19	68.24	281	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	68.24	68.3	330	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	68.3	68.33	139	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	68.33	68.37	240	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	68.37	68.39	71	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	68.39	68.43	234	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	68.43	68.48	228	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	68.48	68.6	640	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	68.6	68.63	168	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CuC2	Cullen-Urban land complex, 6 to 10 percent slopes, moderately eroded	68.63	68.64	75	No	6	0.23	Non-Hydric	High	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	68.64	68.72	414	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
EnD	Enon sandy loam, 10 to 15 percent slopes	68.72	68.83	555	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	68.83	68.86	159	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	68.86	68.87	79	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	68.87	68.91	187	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	68.91	68.96	260	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
Ud	Udorthents, loamy 0 to 25 percent slopes	68.96	69.03	394	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	69.03	69.14	594	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	69.14	69.17	153	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	69.17	69.22	237	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	69.22	69.5	1,512	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	69.5	69.59 RR	438	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
Ur	Urban land	69.59 RR	69.65 RR	335	No	Unknown	Unknown	Non-Hydric	High	>60	Unknown	Unknown	Unknown
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	69.65 RR	69.72 RR	392	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
Ur	Urban land	69.72 RR	69.8 RR	384	No	Unknown	Unknown	Non-Hydric	High	>60	Unknown	Unknown	Unknown
EnD	Enon sandy loam, 10 to 15 percent slopes	69.8 RR	69.84 RR	246	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
Ur	Urban land	69.84 RR	69.92 RR	419	No	Unknown	Unknown	Non-Hydric	High	>60	Unknown	Unknown	Unknown
Ud	Udorthents, loamy 0 to 25 percent slopes	69.92 RR	69.95 RR	150	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	69.95 RR	69.98 RR	178	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	69.98 RR	70.03 RR	218	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.03 RR	69.99	264	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	69.99	70.04	255	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	70.04	70.08	186	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.08	70.11	198	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	70.11	70.17	279	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	70.17	70.17 RR	32	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.17 RR	70.26 RR	456	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	70.26 RR	70.28 RR	93	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	70.28 RR	70.3	147	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.3	70.32	117	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	70.32	70.37	250	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	70.37	70.38	51	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	70.38	70.42	240	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.42	70.43	60	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	70.43	70.5	324	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.5	70.51	87	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	70.51	70.55	220	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.55	70.64	467	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	70.64	70.72	400	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	70.72	70.75	158	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	70.75	70.77	138	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.77	70.79	99	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	70.79	70.84	241	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	70.84	70.86	95	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	70.86	70.98	678	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	70.98	71.04	305	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	71.04	71.29	1,288	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	71.29	71.36	362	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
Ur	Urban land	71.36	71.46	532	No	Unknown	Unknown	Non-Hydric	High	>60	Unknown	Unknown	Unknown
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	71.46	71.73	1,472	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	71.73	71.77	191	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	71.77	71.93	830	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	71.93	71.96 RR	152	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	71.96 RR	72.01 RR	280	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	72.01 RR	72.07	409	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	72.07	72.09	80	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	72.09	72.12	156	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	72.12	72.24	670	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	72.24	72.28	164	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	72.28	72.3	144	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	72.3	72.34	188	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	72.34	72.41	356	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	72.41	72.44	187	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	72.44	72.57	665	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	72.57	72.6	196	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	72.6	72.67	349	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	72.67	72.67	5	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	72.67	72.69	82	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	72.69	72.88 RR	1,011	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	72.88 RR	72.93 RR	289	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	72.93 RR	73.05	709	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	73.05	73.16 RR	586	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	73.16 RR	73.17 RR	70	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
Aboveground Facilities													
Pittsylvania County, Virginia													
Lambert Compressor Station / Interconnect / Mainline valve 1 (MP 0.0RR)													
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
Mainline valves 2 and 3 MP 7.4 and 18.3													
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	NA	NA	NA	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
Contractor Yards													
16B	Helena sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
16C	Helena sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
1B	Appling sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	NA	NA	NA	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
22B	Mattaponi sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Moderately well drained
22C	Mattaponi sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.19	Non-Hydric	Low	>60	No	No	Moderately well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
26D	Fairview fine sandy loam, 15 to 25 percent slopes	NA	NA	NA	Yes	3	0.22	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	NA	NA	NA	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	NA	NA	NA	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
9B	Creedmoor fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.2	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
Access Roads													
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	NA	NA	NA	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
9B	Creedmoor fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.2	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
39	Udorthents, loamy	NA	NA	NA	No	Unknown	Unknown	Non-Hydric	High	>60	Unknown	Unknown	Unknown
11B3	Cullen clay loam, 2 to 7 percent slopes, severely eroded	NA	NA	NA	No	6	0.27	Non-Hydric	High	>60	No	No	Well drained
17B	Hiwassee loam, 2 to 7 percent slopes	NA	NA	NA	Yes	6	0.21	Non-Hydric	High	>60	No	No	Well drained
18C3	Hiwassee clay loam, 7 to 15 percent slopes, severely eroded	NA	NA	NA	No	6	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
1B	Appling sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
1C	Appling sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
21D	Madison fine sandy loam, 15 to 25 percent slopes	NA	NA	NA	Yes	3	0.37	Non-Hydric	Moderate	>60	No	No	Well drained
22C	Mattaponi sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.19	Non-Hydric	Low	>60	No	No	Moderately well drained
23B	Mayodan fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
23C	Mayodan fine sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
23D	Mayodan fine sandy loam, 15 to 25 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
29D	Pinkston-Mayodan complex, 15 to 35 percent slopes, very stony	NA	NA	NA	No	5	0.28	Non-Hydric	Low	18.1	Yes	No	Excessively drained
29E	Pinkston-Mayodan complex, 35 to 50 percent slopes, very stony	NA	NA	NA	No	5	0.28	Non-Hydric	Low	18.1	Yes	No	Excessively drained
3B	Bolling fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.29	Non-Hydric	Moderate	>60	No	No	Moderately well drained
4B	Clifford sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
4C	Cecil sandy loam, 7 to 15 percent slopes	NA	NA	NA	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
5B3	Cecil sandy clay loam, 2 to 7 percent slopes, severely eroded	NA	NA	NA	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
5C3	Cecil sandy clay loam, 7 to 15 percent slopes, severely eroded	NA	NA	NA	Yes	5	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
7A	Chenneby loam, 0 to 2 percent slopes, occasionally flooded	NA	NA	NA	Yes	5	0.44	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
8A	Chenneby-Toccoa complex, 0 to 2 percent slopes, frequently flooded	NA	NA	NA	No	5	0.38	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
9B	Creedmoor fine sandy loam, 2 to 7 percent slopes	NA	NA	NA	Yes	3	0.2	Predominantly Non-Hydric	Moderate	>60	No	No	Moderately well drained
Rockingham County, North Carolina													
LN 3600 Interconnect (MP 28.2)													
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	NA	NA	NA	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
CmB	Clover sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	NA	NA	NA	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
T-15 Dan River Interconnect / Mainline Valve 4 (MP 30.4)													
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	NA	NA	NA	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	NA	NA	NA	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
Mainline valve 5 (MP 42.2)													
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	NA	NA	NA	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
Contractor Yards													
ChC	Clifford-Urban land complex, 2 to 10 percent slopes	NA	NA	NA	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
LeB	Leaksville silt loam, 0 to 4 percent slopes	NA	NA	NA	No	6	0.37	Hydric	High	24	Yes	Yes	Poorly drained
SpB	Spray loam, 0 to 5 percent slopes	NA	NA	NA	No	6	0.43	Non-Hydric	High	>60	Yes	No	Well drained
Ud	Udorthents, loamy	NA	NA	NA	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
Access Roads													
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	NA	NA	NA	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
CmB	Clover sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	NA	NA	NA	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmE	Clover sandy loam, 15 to 25 percent slopes	NA	NA	NA	No	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
BaB	Banister loam, 0 to 4 percent slopes, rarely flooded	NA	NA	NA	Yes	5	0.26	Non-Hydric	Moderate	>60	No	No	Moderately well drained
CaB	Casville sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.26	Non-Hydric	High	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
CdB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.25	Non-Hydric	High	>60	No	No	Well drained
CeA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	NA	NA	NA	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
CfB	Clifford sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
CgB2	Clifford sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.21	Non-Hydric	High	>60	No	No	Well drained
ChC	Clifford-Urban land complex, 2 to 10 percent slopes	NA	NA	NA	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmB	Clover sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmD	Clover sandy loam, 8 to 15 percent slopes	NA	NA	NA	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CmE	Clover sandy loam, 15 to 25 percent slopes	NA	NA	NA	No	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CnB2	Clover sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.3	Non-Hydric	High	>60	No	No	Well drained

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
CnE2	Clover sandy clay loam, 15 to 25 percent slopes, moderately eroded	NA	NA	NA	No	5	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
CsA	Codorus loam, 0 to 2 percent slopes, frequently flooded	NA	NA	NA	No	6	0.41	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
DaA	Dan River loam, 0 to 2 percent slopes, frequently flooded	NA	NA	NA	No	5	0.31	Predominantly Non-Hydric	High	>60	No	No	Well drained
FpE	Fairview-Poplar Forest complex, 15 to 25 percent slopes	NA	NA	NA	No	3	0.21	Non-Hydric	Moderate	>60	No	No	Well drained
FrD2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
FrE2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	NA	NA	NA	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
HwD	Hiwassee loam, 8 to 15 percent slopes	NA	NA	NA	Yes	6	0.18	Non-Hydric	Moderate	>60	No	No	Well drained
IrD	Iredell fine sandy loam, 8 to 15 percent slopes	NA	NA	NA	No	3	0.3	Non-Hydric	Moderate	>60	No	Yes	Somewhat poorly drained
JkB	Jackland fine sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.3	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
NaB	Nathalie sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.18	Non-Hydric	Moderate	>60	No	No	Well drained
OkB2	Oak Level sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.29	Non-Hydric	High	>60	No	No	Well drained
PaD	Pacolet sandy loam, 8 to 15 percent slopes	NA	NA	NA	Yes	3	0.19	Non-Hydric	Moderate	>60	No	No	Well drained
PcD2	Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.29	Non-Hydric	Moderate	>60	No	No	Well drained
PpB2	Poplar Forest sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.3	Non-Hydric	High	>60	No	No	Well drained
PpE2	Poplar Forest sandy clay loam, 15 to 25 percent slopes, moderately eroded	NA	NA	NA	No	5	0.31	Non-Hydric	Moderate	>60	No	No	Well drained
RnB	Rhodhiss sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.25	Non-Hydric	High	>60	No	No	Well drained
RnD	Rhodhiss sandy loam, 8 to 15 percent slopes	NA	NA	NA	Yes	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
RnE	Rhodhiss sandy loam, 15 to 30 percent slopes	NA	NA	NA	No	3	0.25	Non-Hydric	Moderate	>60	No	No	Well drained
SmC	Siloam sandy loam, 4 to 10 percent slopes	NA	NA	NA	No	3	0.22	Non-Hydric	High	15	No	No	Well drained
SmF	Siloam sandy loam, 10 to 45 percent slopes	NA	NA	NA	No	3	0.22	Non-Hydric	Moderate	15	No	No	Well drained
SpB	Spray loam, 0 to 5 percent slopes	NA	NA	NA	No	6	0.43	Non-Hydric	High	>60	Yes	No	Well drained
Ud	Udorthents, loamy	NA	NA	NA	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
W	Water	NA	NA	NA	No	Unknown	Unknown	Non-Hydric	Unknown	>60	Unknown	Unknown	Unknown
WhB	Wickham sandy loam, mesic, 1 to 4 percent slopes, rarely flooded	NA	NA	NA	Yes	3	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
Alamance County, North Carolina													
Mainline valves 6 and 7 (MP 55.1 and 68.7)													
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	NA	NA	NA	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
T-21 Haw River Interconnect / Mainline valve 8 (MP 73.2RR)													
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
Access Roads													

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Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
EnB	Enon sandy loam, 2 to 6 percent slopes	NA	NA	NA	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
Ud	Udorthents, loamy 0 to 25 percent slopes	NA	NA	NA	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
CcB	Cecil sandy loam, 2 to 6 percent slopes	NA	NA	NA	Yes	3	0.22	Non-Hydric	High	>60	No	No	Well drained
CeB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
CeC2	Cecil sandy clay loam, 6 to 10 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.28	Non-Hydric	High	>60	No	No	Well drained
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	NA	NA	NA	No	5	0.26	Predominantly Non-Hydric	High	>60	No	No	Somewhat poorly drained
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
CnE2	Cullen clay loam, 15 to 45 percent slopes, moderately eroded	NA	NA	NA	No	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
DAM	Dam	NA	NA	NA	No	Unknown	Unknown	Non-Hydric	Low	>60	Unknown	Unknown	Unknown
EnB	Enon sandy loam, 2 to 6 percent slopes	NA	NA	NA	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnC	Enon sandy loam, 6 to 10 percent slopes	NA	NA	NA	Yes	3	0.28	Non-Hydric	High	>60	No	No	Well drained
EnD	Enon sandy loam, 10 to 15 percent slopes	NA	NA	NA	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
EoB2	Enon clay loam, 2 to 6 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EoC2	Enon clay loam, 6 to 10 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.28	Non-Hydric	High	>60	No	No	Well drained
EsD	Enon loam, 10 to 15 percent slopes, very stony	NA	NA	NA	No	5	0.26	Non-Hydric	Moderate	>60	No	No	Well drained
FgB	Frogsboro sandy loam, 2 to 6 percent slopes	NA	NA	NA	No	3	0.26	Non-Hydric	High	>60	No	Yes	Somewhat poorly drained
HeB	Helena sandy loam, 2 to 6 percent slopes	NA	NA	NA	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
HeC	Helena sandy loam, 6 to 10 percent slopes	NA	NA	NA	Yes	3	0.27	Non-Hydric	Moderate	>60	No	No	Moderately well drained
IrB	Iredell loam, 2 to 6 percent slopes	NA	NA	NA	Yes	3	0.31	Non-Hydric	Moderate	>60	No	No	Moderately well drained
LoD	Louisburg coarse sandy loam, 10 to 15 percent slopes	NA	NA	NA	Yes	3	0.28	Non-Hydric	Moderate	>60	No	No	Well drained
RvA	Riverview loam, 0 to 2 percent slopes, occasionally flooded	NA	NA	NA	Yes	5	0.39	Non-Hydric	High	>60	No	No	Well drained
RxE	Rowan-Poindexter complex, 15 to 45 percent slopes	NA	NA	NA	No	3	0.35	Non-Hydric	Moderate	29.9	No	No	Well drained
Ud	Udorthents, loamy 0 to 25 percent slopes	NA	NA	NA	No	5	0.2	Non-Hydric	Moderate	>60	No	No	Well drained
Ur	Urban land	NA	NA	NA	No	Unknown	Unknown	Non-Hydric	High	>60	Unknown	Unknown	Unknown
VaB	Vance sandy loam, 2 to 6 percent slopes	NA	NA	NA	Yes	3	0.24	Non-Hydric	High	>60	No	No	Well drained
W	Water	NA	NA	NA	No	Unknown	Unknown	Non-Hydric	Unknown	>60	Unknown	Unknown	Unknown

REVISED [Oct 2019] - Table 7.2-2

Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class
WtC	Wynott-Enon complex, 6 to 10 percent slopes	NA	NA	NA	Yes	5	0.25	Non-Hydric	High	28	No	No	Well drained
Contractor Yards													
CnB2	Cullen clay loam, 2 to 6 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnC2	Cullen clay loam, 6 to 10 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	High	>60	No	No	Well drained
CnD2	Cullen clay loam, 10 to 15 percent slopes, moderately eroded	NA	NA	NA	Yes	6	0.23	Non-Hydric	Moderate	>60	No	No	Well drained
HnB	Herndon silt loam, 2 to 6 percent slopes	NA	NA	NA	Yes	6	0.36	Non-Hydric	High	>60	No	No	Well drained
HnC	Herndon silt loam, 6 to 10 percent slopes	NA	NA	NA	Yes	6	0.36	Non-Hydric	High	>60	No	No	Well drained
HnD	Herndon silt loam, 10 to 15 percent slopes	NA	NA	NA	Yes	6	0.36	Non-Hydric	Moderate	>60	No	No	Well drained
WtB	Wynott-Enon complex, 2 to 6 percent slopes	NA	NA	NA	Yes	5	0.25	Non-Hydric	High	28	No	No	Well drained
WtC	Wynott-Enon complex, 6 to 10 percent slopes	NA	NA	NA	Yes	5	0.25	Non-Hydric	High	28	No	No	Well drained
WtD	Wynott-Enon complex, 10 to 15 percent slopes	NA	NA	NA	Yes	5	0.25	Non-Hydric	Moderate	28	No	No	Well drained
Caswell County, North Carolina													
Contractor Yards													
CaB	Casville sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
FbB2	Fairview sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.23	Non-Hydric	High	>60	No	No	Well drained
HaC	Halifax sandy loam, 8 to 15 percent slopes	NA	NA	NA	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Moderately well drained
ReC	Rasalo-Enott complex, 8 to 15 percent slopes	NA	NA	NA	Yes	3	0.28	Non-Hydric	Moderate	48	No	No	Well drained
SkE	Spriggs-Mocksville complex, 25 to 45 percent slopes	NA	NA	NA	No	3	0.3	Non-Hydric	Moderate	29.9	No	No	Well drained
Access Roads													
CaB	Casville sandy loam, 2 to 8 percent slopes	NA	NA	NA	Yes	3	0.23	Non-Hydric	High	>60	No	No	Well drained
FbB2	Fairview sandy clay loam, 2 to 8 percent slopes, moderately eroded	NA	NA	NA	Yes	5	0.23	Non-Hydric	High	>60	No	No	Well drained
HaC	Halifax sandy loam, 8 to 15 percent slopes	NA	NA	NA	Yes	3	0.24	Non-Hydric	Moderate	>60	No	No	Moderately well drained

Notes:

NA = Not Applicable

a/: Prime farmland and Farmland of Statewide Importance includes soils mapped and designated as prime farmland and farmland of statewide importance by the NRCS (SSURGO reference column “farmlndcl”). Prime Farmland if drained and / or irrigated and / or reclaimed of excess salts and sodium is not included in this acreage. No areas of Farmland of local importance or unique farmland are affected by the Project.

b/: WEGs (Wind Erodibility Groups) obtained from the NRCS Soil Data Mart. WEGs range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest. Highly wind erodible soils include those in wind erodibility groups 1 or 2 (SSURGO reference column "weg").

c/: Water erosion potential was determined by averaging the K factor values of horizons of each soil type. Based on the average K factor, each soil type was grouped into a water erosion class of “Low”, “Moderate”, and “High”. Highly water erodible soils include those with a K factor greater than 0.4.

d/: “Urban Land” and “Udorthents” map units do not have a NRCS designated hydric soil status. These map units were considered to be non-hydric soils. Hydric Type is determined with Hydric Classification - Presence ("hydclprs") where if hydclprs of 0% is categorized as “Non-hydric”. Values between 1% – 33% are categorized as “Predominantly Non-hydric”, 34% - 66% as “Partially Hydric”, 67% - 99% as “Predominantly Hydric”, and 100% is categorized as “Hydric”.

e/: Revegetation Potential is determined by three parameters: drainage class, K factor, and slope, each parameter assigned a value of 1, 2, or 3, then averaged. Drainage classes of excessively drained and very poorly drained are designated low (1), somewhat excessively drained and poorly drained are designated moderate (2), and well drained, moderately well drained, and somewhat poorly drained are designated high (3). Low K factor (3), Moderate (2), and High (1). Slopes of 25% or more are low (1), 8%-25% are moderate (2), and slopes of less than 8% are high (3). The average of these three scores is then taken to determine the overall low, moderate, or high revegetation potential. 1.0-1.7 = Low, 1.8-2.3 = Moderate, 2.4-3.0 = High.

f/: Depth to bedrock is not defined by the NRCS for the “Pavement and Buildings” map unit. In these cases, a depth to bedrock of >60” was assigned, which is consistent with NRCS designations for other natural and fill soils in the Project area. Shallow bedrock soils include those that have lithic or paralithic bedrock within 60 inches or less of the soil surface (SSURGO and STATGO2 reference column “rescind” and “resdept_r”).

g/: Stony/Rocky soils include those with a cobbley, stony, bouldery, shaly, channery, very gravelly, or extremely gravelly modifier to the textural class of the surface layer and / or that have a surface layer that contains greater than 5 percent by weight rock fragments larger than 3 inches.

REVISED [Oct 2019] - Table 7.2-2

Soil Types Crossed by the MVP Southgate Project

Map Unit Symbol	Map Unit Name	Milepost Start	Milepost End	Crossing Length (feet)	Prime Farmland, Farmland of Statewide Importance & Local Farmland a/	WEG b/	K Factor c/	Hydric Rating d/	Revegetation Potential e/	Depth to Bedrock (inches) f/	Stony/Rocky g/	Compaction Prone h/	Drainage Class

h/: Compaction prone was determined by texture and drainage class. Compaction prone soils are those with clay loam or finer texture, and somewhat poor, poor, and very poor drainage class (SSURGO reference column "texcl" and "drainagecl").
i/: Mileposts represent soil types crossed by the pipeline alignment only. A summary of limitations associated with all soil types affected by the Project workspace areas is included in Table 7.2-1.

REVISED [Oct 2019] - Table 7.3-1

Prime Farmland Affected by the MVP Southgate Project

Facility, County, State	Area of Project Workspace within Prime Farmland Areas (Acres) a/							
	Mapped Prime Farmland b/		Prime Farmland currently in agricultural use c/		Mapped Farmland of Statewide Importance d/		Farmland of Statewide Importance currently in agricultural use e/	
	Construction f/	Operation g/	Construction	Operation	Construction	Operation	Construction	Operation
H-605 Pipeline								
Pittsylvania, Virginia	**6.4**	**2.2**	**1.0**	**0.6**	**1.5**	**0.5**	**0.0**	**0.0**
H-650 Pipeline								
Pittsylvania, Virginia	89.5	33.8	14.7	5.2	270.7	102.3	51.3	20.5
Rockingham, North Carolina	158.5	56.3	46.8	14.2	102.2	39.4	1.2	0.4
Alamance, North Carolina	146.8	54.0	33.2	11.7	137.3	51.3	12.4	4.1
Cathodic Protection Groundbeds								
Pittsylvania, Virginia	0.3	0.3	0.0	0.0	0.8	0.8	0.0	0.0
Rockingham, North Carolina	<0.1	<0.1	<0.1	<0.1	0.0	0.0	0.0	0.0
Alamance, North Carolina	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Aboveground Facilities								
Pittsylvania, Virginia								
Lambert Compressor Station / Interconnect / MLV 1 (MP 0.0)	16.1	6.6	12.2	6.1	3.0	2.0	0.5	0.2
MLVs 2 and 3 (MPs 7.4 and 18.3)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.0	0.0
Contractor Yards	54.7	0.0	0.0	0.0	43.4	0.0	0.0	0.0
Access Roads	14.8	1.9	1.4	0.7	20.3	0.4	2.7	0.1
Rockingham, North Carolina								
LN 3600 Interconnect (MP 28.2)	4.4	0.8	<0.1	0.0	0.2	<0.1	0.0	0.0
T-15 Dan River Interconnect / MLV 4 (MP 30.4)	5.1	0.8	<0.1	0.0	0.0	0.0	0.0	0.0
MLV 5 (MP 42.2)	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Yards	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Access Roads	21.1	1.9	2.9	<0.1	7.7	1.0	0.5	0.0

REVISED [Oct 2019] - Table 7.3-1

Prime Farmland Affected by the MVP Southgate Project

Facility, County, State	Area of Project Workspace within Prime Farmland Areas (Acres) a/							
	Mapped Prime Farmland b/		Prime Farmland currently in agricultural use c/		Mapped Farmland of Statewide Importance d/		Farmland of Statewide Importance currently in agricultural use e/	
	Construction f/	Operation g/	Construction	Operation	Construction	Operation	Construction	Operation
Alamance County, North Carolina								
T-21 Haw River Interconnect (MP 73.1) / MLV 8	0.0	0.0	0.0	0.0	1.3	0.6	0.0	0.0
MLVs 6 and 7 (MPs 55.1 and 68.7)	<0.0	<0.1	<0.1	<0.1	0.0	0.0	0.0	0.0
Contractor Yards	7.6	0.0	0.0	0.0	14.5	0.0	0.0	0.0
Access Roads	8.9	0.2	0.6	<0.1	9.2	0.1	1.1	0.0
Caswell County, North Carolina								
Contractor Yards	19.3	0.0	0.0	0.0	4.0	0.0	0.0	0.0
Access Roads	0.8	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Project Total h/	**555.1**	**159.4**	**112.9**	**38.6**	**616.7**	**198.5**	**69.7**	**25.3**

Note: Pig launchers and receivers will be within other aboveground facility sites (i.e., the Lambert Compressor Station, T-15 Dan River Interconnect, and T-21 Haw River Interconnect), therefore, acreages calculations for the pig launchers and receivers are included with those facilities. Mainline Valves ("MLVs") 1, 4, and 8 will be within other aboveground facility sites (i.e., the Lambert Compressor Station, T-15 Dan River Interconnect, and T-21 Haw River Interconnect), therefore, acreages calculations for these MLVs are included with those facilities.

a/ No areas of Farmland of local importance or unique farmland are affected by the Project.
b/ Prime farmland includes soils mapped and designated as prime farmland by the NRCS. Prime Farmland if drained and / or irrigated and / or reclaimed of excess salts and sodium is not included in this acreage (SSURGO reference column "farmlands").
c/ Agricultural land (i.e., cultivated land identified in Resource Report 8) within areas identified as Prime Farmland. Numbers represent actual land in agricultural use.
d/ Farmland of Statewide Importance includes soils mapped and designated as farmland of statewide importance by the NRCS (SSURGO reference column "farmlndcl"). Farmland of statewide importance are mapped by SSURGO and determined by the appropriate State agencies which may include areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.
e/ Agricultural land (i.e., cultivated land identified in Resource Report 8) within areas identified as Farmland of Statewide Importance. Numbers represent actual land in agricultural use.
f/ Construction acres includes the area affected by construction (i.e., temporary and additional temporary workspace, contractor yards, and access roads) and the area affected by operation of the Project (i.e., facility operation footprint and 50-foot pipeline permanent right-of-way). The 50-foot-wide permanent right-of-way between horizontal directional drill entry and exit points and railroad rights-of-way are not included in this acreage. Acreage includes a five-foot path between the HDD entry and exit workspace areas to allow for placement of the HDD guide wire.
g/ Includes only the operation footprint of the Project facilities and the 50-foot-wide permanent pipeline right-of-way.
h/ Sums may not equal addends due to rounding. Addends consist of six-decimal digits.

REVISED [Oct 2019] - Table 113-1

Prime Farmland Permanently Affected by the MVP Southgate Project

Facility, County, State	Area of Project Workspace within Prime Farmland Areas (Acres) a/			
	Mapped Prime Farmland b/	Prime Farmland currently in agricultural use c/	Mapped Farmland of Statewide Importance d/	Farmland of Statewide Importance currently in agricultural use e/
Aboveground Facilities				
Pittsylvania, Virginia				
Lambert Compressor Station / Interconnect / MLV 1 (MP 0.0)	6.6	6.1	2.0	0.2
MLVs 2 and 3 (MPs 7.4 and 18.3)	<0.1	<0.1	<0.1	0.0
Permanent Access Roads	1.9	0.7	0.4	0.1
Rockingham, North Carolina				
LN 3600 Interconnect (MP 28.2)	0.8	0.0	<0.1	0.0
T-15 Dan River Interconnect / MLV 4 (MP 30.4)	0.8	0.0	0.0	0.0
MLV 5 (MP 42.2)	<0.1	0.0	0.0	0.0
Permanent Access Roads	1.9	<0.1	1.0	0.0
Alamance County, North Carolina				
T-21 Haw River Interconnect (MP 73.1) / MLV 8	0.0	0.0	0.6	0.0
MLVs 6 and 7 (MPs 55.1 and 68.2)	<0.1	<0.1	0.0	0.0
Permanent Access Roads	0.2	<0.1	0.1	0.0
Caswell County, North Carolina				
None				
Project Total f/	**12.3**	**6.8**	**4.2**	**0.3**

Note: Pig launchers and receivers will be within other aboveground facility sites (i.e., the Lambert Compressor Station, T-15 Dan River Interconnect, and T-21 Haw River Interconnect), therefore, acreages calculations for the pig launchers and receivers are included with those facilities. Mainline Valves ("MLVs") 1, 4, and 8 will be within other aboveground facility sites (i.e., the Lambert Compressor Station, T-15 Dan River Interconnect, and T-21 Haw River Interconnect), therefore, acreages calculations for these MLVs are included with those facilities.

a/ No areas of Farmland of local importance or unique farmland are affected by the Project. Includes only the operation footprint of the Project facilities, permanent access roads, and the 50-foot-wide permanent pipeline right-of-way.

b/ Prime farmland includes soils mapped and designated as prime farmland by the NRCS. Prime Farmland if drained and / or irrigated and / or reclaimed of excess salts and sodium is not included in this acreage (SSURGO reference column "farmlands").

c/ Agricultural land (i.e., cultivated land identified in Resource Report 8) within areas identified as Prime Farmland. Numbers represent actual land in agricultural use.

d/ Farmland of Statewide Importance includes soils mapped and designated as farmland of statewide importance by the NRCS (SSURGO reference column "farmlndcl"). Farmland of statewide importance are mapped by SSURGO and determined by the appropriate State agencies which may include areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.

e/ Agricultural land (i.e., cultivated land identified in Resource Report 8) within areas identified as Farmland of Statewide Importance. Numbers represent actual land in agricultural use.

f/ Sums may not equal addends due to rounding. Addends consist of six-decimal digits.

MVP Southgate Project

Docket No. CP19-14-000

Resource Report 8 Table Updates

October 2019

LIST OF TABLES

REVISED [Oct 2019] - Table 8.2-1

Land Uses Crossed by the Southgate Project Pipeline

Facility	County, State	Upland Forest / Woodland a/		Upland Open Land b/		Agricultural c/		Commercial / Industrial d/		Wetland e/		Silviculture f/		Residential g/		Open Water h/		Total i/
		Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles
H-605 Pipeline	Pittsylvania, VA	0.3	60	0.1	16	0.1	23	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.5
H-650 Pipeline	Pittsylvania, VA	12.2	46	7.9	30	4.3	16	0.2	1	1.3	5	0.1	0	0.2	1	0.1	1	26.4
	Rockingham, NC	16.2	61	5.6	21	3.1	12	0.5	2	0.8	3	0.2	1	0.0	0	0.2	1	26.7
	Alamance, NC	10.8	50	6.5	30	2.8	13	0.3	1	0.3	2	0.4	2	0.2	1	0.1	1	21.5
TOTAL		39.5	53	20.2	27	10.2	14	1.0	1	2.4	3	0.8	1	0.5	1	0.5	1	75.1

Source: Project aerial photography April 2018

a/ Upland forest not being used for specific commercial purposes.

b/ Utility rights-of-way, open fields, vacant land, herbaceous and scrub uplands, non-forested lands, golf courses, and municipal land.

c/ Cultivated land (e.g., tobacco, soybeans, hay, corn).

d/ Manufacturing or industrial plants, paved areas, landfills, mines, quarries, electric power or natural gas utility facilities; developed areas, roads, railroads and railroad yards, and commercial or retail facilities.

e/ Palustrine forested, Palustrine scrub-shrub, and Palustrine emergent wetlands as identified in Resource Report 2.

f/ Wooded lands being managed for forest products (i.e., pine plantations).

g/ Existing developed residential areas and planned residential developments. This may include large developments, low, medium, and high density residential neighborhoods, urban and suburban residential, multi-family residences, ethnic villages, residentially zoned areas that have been developed or short segments of the route at road crossings with homes near the route alignment.

h/ Field delineated waterbodies with a bank width of greater than six feet, and waterbodies visible on aerial photography where field delineation has not been completed.

i/ Sum of addends may not equal the totals due to rounding. Addends consist of 6-decimal digits. Mileposts along the H-650 pipeline incorporate station equations to maintain mileposting as route variations are incorporated. The total crossing miles of the H-650 pipeline is therefore longer than the end milepost (MP 73.17 RR).

REVISED [Oct 2019] - Table 8.2-2

Land Use Acreage Affected by Construction and Operation of the Proposed MVP Southgate Project Pipeline i/

Facility County, State	Upland Forest / Woodland a/		Upland Open Land b/		Agricultural Land c/		Commercial / Industrial d/		Wetland e/		Silviculture f/		Residential g/		Open Water h/		Total i/	
	Construction j/	Operation k/	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operational
H-605 Pipeline Right-of-Way l/	**3.5**	**1.7**	**0.7**	**0.4**	**1.1**	**0.6**	**0.0**	**0.0**	**<0.1**	**<0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**<0.1**	**0.0**	**5.3**	**2.6**
Pittsylvania, VA	3.5	1.7	0.7	0.4	1.1	0.6	0.0	0.0	<0.1	<0.1	0.0	0.0	0.0	0.0	<0.1	0.0	**5.3**	**2.6**
Additional Temporary Workspace	**2.4**	**0.0**	**0.1**	**0.0**	<0.1	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**2.5**	**0.0**
Pittsylvania, VA	2.4	0.0	0.1	0.0	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**2.5**	**0.0**
H-650 Pipeline Right-of-Way l/	**441.8**	**227.6**	**248.2**	**123.0**	**118.6**	**59.9**	**10.8**	**5.6**	**22.9**	**5.6**	**9.0**	**4.5**	**6.5**	**2.9**	**3.5**	**0.0**	**861.3**	**429.0**
Pittsylvania, VA	138.4	69.1	97.8	49.4	51.3	25.8	2.5	1.3	11.6	2.8	1.5	0.7	2.8	1.2	1.3	0.0	**307.3**	**150.3**
Rockingham, NC	182.0	95.0	72.7	34.4	33.0	17.2	5.0	2.7	8.0	1.9	2.7	1.4	0.8	0.3	1.6	0.0	**305.7**	**152.9**
Alamance, NC	121.4	63.4	77.7	39.1	34.3	16.9	3.3	1.6	3.3	0.9	4.7	2.4	2.9	1.4	0.6	0.0	**248.3**	**125.8**
Additional Temporary Workspace	**137.8**	**0.0**	**87.4**	**0.0**	**56.4**	**0.0**	**1.7**	**0.0**	**1.9**	**0.0**	**2.8**	**0.0**	**2.4**	**0.0**	**<0.1**	**0.0**	**290.4**	**0.0**
Pittsylvania, VA	44.6	0.0	31.2	0.0	15.4	0.0	0.1	0.0	0.2	0.0	0.4	0.0	0.4	0.0	<0.1	0.0	**92.3**	**0.0**
Rockingham, NC	56.1	0.0	25.0	0.0	25.6	0.0	0.2	0.0	1.6	0.0	0.2	0.0	0.7	0.0	0.0	0.0	**109.4**	**0.0**
Alamance, NC	37.1	0.0	31.2	0.0	15.4	0.0	1.4	0.0	0.1	0.0	2.2	0.0	1.3	0.0	0.0	0.0	**88.7**	**0.0**

REVISED [Oct 2019] - Table 8.2-2

Land Use Acreage Affected by Construction and Operation of the Proposed MVP Southgate Project Pipeline i/

Facility County, State	Upland Forest / Woodland a/		Upland Open Land b/		Agricultural Land c/		Commercial / Industrial d/		Wetland e/		Silviculture f/		Residential g/		Open Water h/		Total i/	
	Construction j/	Operation k/	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operational
Cathodic Protection Groundbeds	**<0.1**	**<0.1**	**1.7**	**1.7**	**<0.1**	**<0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.8**	**1.8**
Pittsylvania, VA	<0.1	<0.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.1**	**1.1**
Rockingham, NC	0.0	0.0	0.0	0.0	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**<0.1**	**<0.1**
Alamance, NC	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.6**	**0.6**
Permanent Aboveground Facilities	**5.2**	**3.3**	**11.5**	**2.6**	**13.1**	**4.9**	**<0.1**	**<0.1**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**30.3**	**10.9**
Pittsylvania, VA	**4.9**	**3.1**	**1.3**	**0.7**	**13.0**	**4.9**	**<0.1**	**<0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**19.1**	**8.6**
Lambert Compressor Station & Interconnect / MLV 1	4.9	3.1	1.3	0.7	13.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**19.1**	**8.6**
MLV 2	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**<0.1**	**<0.1**
MLV 3	0.0	0.0	0.0	0.0	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**<0.1**	**<0.1**
Rockingham, NC	**0.3**	**0.2**	**8.9**	**1.4**	**0.1**	**0.0**	**<0.1**	**<0.1**	**0.5**	**0.0**	**<0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**9.8**	**1.6**
LN 3600 Interconnect	0.3	0.2	4.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	0.0	0.0	0.0	0.0	**4.6**	**0.9**
T-15 Dan River Interconnect / MLV 4	0.0	0.0	4.6	0.8	0.1	0.0	<0.1	<0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**5.2**	**0.8**

REVISED [Oct 2019] - Table 8.2-2

Land Use Acreage Affected by Construction and Operation of the Proposed MVP Southgate Project Pipeline i/

Facility County, State	Upland Forest / Woodland a/		Upland Open Land b/		Agricultural Land c/		Commercial / Industrial d/		Wetland e/		Silviculture f/		Residential g/		Open Water h/		Total i/	
	Construction j/	Operation k/	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operational
MLV 5	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**<0.1**	**<0.1**
Alamance, NC	**<0.1**	**<0.1**	**1.3**	**0.6**	**<0.1**	**<0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.4**	**0.6**
T-21 Haw River Interconnect / MLV 8	0.0	0.0	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**1.3**	**0.6**
MLV 6	0.0	0.0	0.0	0.0	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**<0.1**	**<0.1**
MLV 7	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**<0.1**	**<0.1**
Contractor Yards	**3.2**	**0.0**	**143.8**	**0.0**	**0.0**	**0.0**	**27.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**174.8**	**0.0**
Pittsylvania, VA	3.0	0.0	84.8	0.0	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**98.1**	**0.0**
Rockingham, NC	0.0	0.0	12.2	0.0	0.0	0.0	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**29.8**	**0.0**
Alamance, NC	0.2	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**22.1**	**0.0**
Caswell, NC	<0.1	0.0	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**24.9**	**0.0**
Temporary and Permanent Access Roads	**11.8**	**0.3**	**56.1**	**3.8**	**10.1**	**0.7**	**11.4**	**0.8**	**0.2**	**0.0**	**0.6**	**0.0**	**9.2**	**0.0**	**<0.1**	**0.0**	**99.5**	**5.7**
Pittsylvania, VA	5.0	0.2	21.2	0.7	4.3	0.7	4.2	0.6	0.1	0.0	0.0	0.0	2.9	0.0	<0.1	0.0	**37.7**	**2.3**
Rockingham, NC	3.1	0.0	25.7	2.9	4.0	<0.1	2.3	0.1	0.1	0.0	0.0	0.0	4.4	0.0	0.0	0.0	**39.5**	**3.1**

REVISED [Oct 2019] - Table 8.2-2

Land Use Acreage Affected by Construction and Operation of the Proposed MVP Southgate Project Pipeline i/

Facility County, State	Upland Forest / Woodland a/		Upland Open Land b/		Agricultural Land c/		Commercial / Industrial d/		Wetland e/		Silviculture f/		Residential g/		Open Water h/		Total i/	
	Construction j/	Operation k/	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operational
Alamance, NC	3.3	0.1	8.7	0.1	1.8	<0.1	5.0	0.1	0.0	0.0	0.6	0.0	1.6	0.0	<0.1	0.0	**21.0**	**0.3**
Caswell, NC	0.5	0.0	0.4	0.0	0.0	0.0	<0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	**1.3**	**0.0**
Project Total	**605.8**	**232.9**	**549.5**	**131.5**	**199.3**	**66.1**	**51.8**	**6.5**	**25.5**	**5.6**	**12.5**	**4.5**	**18.1**	**2.9**	**3.5**	**0.0**	**1,465.9**	**450.0**

Source: Project aerial photography April 2018.

Note: Pig launchers and receivers will be within other aboveground facility sites (i.e., the Lambert Compressor Station, T-15 Dan River Interconnect, and T-21 Haw River Interconnect), therefore, acreages calculations for the pig launchers and receivers are included with those facilities. Mainline valves (MLVs) 1, 4, and 8 will be within other aboveground facility sites (i.e., the Lambert Compressor Station, T-15 Dan River Interconnect, and T-21 Haw River Interconnect), therefore, acreage calculations for MLVs 1, 4, and 8 are included with those facilities.

a/ Upland forest not being used for specific commercial purposes.

b/ Utility rights-of-way, open fields, vacant land, herbaceous and scrub uplands, non-forested lands, golf courses, and municipal land.

c/ Cultivated land (e.g., tobacco, soybeans, hay, corn).

d/ Manufacturing or industrial plants, paved areas, landfills, mines, quarries, electric power or natural gas utility facilities; developed areas, roads, railroads and railroad yards, and commercial or retail facilities.

e/ Palustrine forested, Palustrine scrub-shrub, and Palustrine emergent wetlands as identified in Resource Report 2.

f/ Wooded lands being managed for forest products (i.e., pine plantations).

g/ Existing developed residential areas and planned residential developments. This may include large developments, low, medium, and high density residential neighborhoods, urban and suburban residential, multi-family residences, ethnic villages, residentially zoned areas that have been developed or short segments of the route at road crossings with homes near the route alignment.

h/ Field delineated waterbodies with a bank width of greater than six feet, and waterbodies visible on aerial photography where field delineation has not been completed.

i/ Sums may not equal the total of addends due to rounding.

j/ Construction acres includes the area affected by construction (i.e., temporary and additional temporary workspace, contractor yards, and access roads) and the area affected by operation of the Project (i.e., facility operation footprint and 50-foot pipeline permanent right-of-way). The 50-foot-wide permanent right-of-way between horizontal directional drill entry and exit points are not included in this acreage. Acreage includes a three-foot path between the HDD entry and exit workspace areas to allow for placement of the HDD guide wire.

REVISED [Oct 2019] - Table 8.2-2

Land Use Acreage Affected by Construction and Operation of the Proposed MVP Southgate Project Pipeline i/

Facility County, State	Upland Forest / Woodland a/		Upland Open Land b/		Agricultural Land c/		Commercial / Industrial d/		Wetland e/		Silviculture f/		Residential g/		Open Water h/		Total i/	
	Construction j/	Operation k/	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operation	Construction	Operational

k/ Includes only the operation footprint of the Project facilities, the 50-foot-wide permanent pipeline right-of-way in uplands, except in wetland areas where the operation width has been reduced to 10 feet in emergent wetlands, scrub shrub wetlands, and within 25 feet of waterbodies; and 30 feet in forested wetlands. The 50-foot-wide permanent right-of-way between horizontal directional drill entry and exit points and within railroad rights-of-way are not included in this acreage.

l/ Includes the 50-foot-wide permanent right-of-way and temporary workspace areas.

j/ includes ATWS areas for both the H-605 and H-650 pipelines. ATWS areas to be used for construction of aboveground facilities are included in the acreage calculations for the applicable aboveground facilities. ATWS areas associated with access roads are included in the acreage calculations for the applicable pipeline facility the access road is associated with (i.e., H-605 or H-650 pipeline).

REVISED [Oct 2019] - Table 8.2-3

Agricultural Drainage Tiles and Irrigation Systems Located on Parcels Affected by the Southgate Project

State, County	Approximate Mileposts	Tract ID	Feature Type
Virginia			
Pittsylvania	9.2	VA-PI-052.000	Irrigation Sprinkler System
Pittsylvania	17.2	VA-PI-115.200.AR	Irrigation Sprinkler System
North Carolina			
Rockingham	35.7	NC-RO-058.000	Irrigation Sprinkler System
Rockingham	35.5	NC-RO-059.000	Irrigation Sprinkler System
Rockingham	36.2	NC-RO-061.000	Irrigation Sprinkler System
Rockingham	36.6	NC-RO-063.000	Well
Rockingham	38.7	NC-RO-089.000	Irrigation Sprinkler System
Rockingham	42.0	NC-RO-112.000	Drain Tile
Rockingham	41.8	NC-RO-112.100.AR	Drain Tile
Rockingham	48.2	NC-RO-156.000	Irrigation Sprinkler System
Rockingham	50.3	NC-RO-174.200	Irrigation Sprinkler System
Alamance	53.3	NC-AL-000.060	Irrigation Sprinkler System
Alamance	54.3	NC-AL-006.000	Irrigation Sprinkler System
Alamance	56.1	NC-AL-025.000	Pivot or Irrigation System
Alamance	61.1	NC-AL-076.000	Irrigation Sprinkler System
Alamance	61.7	NC-AL-081.000	Irrigation Sprinkler System
Alamance	62.1	NC-AL-084.000	Irrigation Sprinkler System
Alamance	63.2	NC-AL-093.000	Agricultural Drain Tile
Alamance	63.4 / TA-AL-171	NC-AL-101.000.AR	Irrigation Sprinkler System, Pivot or Irrigation System
Alamance	66.3	FA3-AL-005.000	Drain Tile, Septic System
Alamance	Contractor Yard	NC-AL-226.CY26	Drain Tile

Source: Landowner surveys conducted to date for the Southgate Project.

REVISED [Oct 2019] - Table 8.2-4

Silviculture Areas Crossed by the Southgate Project

Silviculture Type	Land Tract	Nearest Milepost	Pipeline Crossing Length (feet)	Construction Acres a/	Operation Acres b/
Pine Plantation	VA-PI-006.000	0.9	253	1.0	0.2
Pine Plantation	VA-PI-007.000	1.0	0	<0.1	<0.1
Pine Plantation	VA-PI-008.000	1.2	0	<0.1	0.0
Pine Plantation	VA-PI-101.000	15.4RR	421	1.0	0.5
Pine Plantation	NC-RO-006.000	27.6 – 28.5RR	398	1.0	0.5
Pine Plantation	NC-RO-140.000	45.2 – 45.5	796	2.0	0.9
Pine Plantation	NC-AL-000.065	53.3 – 53.6	1,554	4.3	1.8
Pine Plantation	NC-AL-074.100 AR	60.8RR	0	0.3	0.0
Pine Plantation	NC-AL-103.000	63.8 – 64.0RR	540	2.9	0.6
Pine Plantation	NC-AL-143.000	68.4	0	0.1	0.0
		Totals c/	**3,962**	**12.5**	**4.5**

a/ Construction acres includes the area affected by construction (i.e., temporary and additional temporary workspace, contractor yards, and access roads) and the area affected by operation of the Southgate Project (i.e., facility operation footprint and 50-foot pipeline permanent right-of-way). The 50-foot-wide permanent right-of-way between horizontal directional drill entry and exit points and within railroad rights-of-way are not included in this acreage.

b/ Includes only the operation footprint of the Southgate Project facilities that is the 50-foot-wide permanent pipeline right-of-way in uplands.

c/ Sums may not equal the total of addends due to rounding. Addends consist of six-decimal digits.

REVISED [Oct 2019] - Table 8.2-6 Railroads Crossed by the Southgate Project				
County, State	**Milepost**	**Railroad**	**Active or Abandoned**	**Proposed Crossing Method**
Pittsylvania, VA	5.3	Norfolk Southern Railroad	Active	Conventional Bore
Pittsylvania, VA	25.0	Norfolk Southern Railroad	Active	Conventional Bore
Rockingham, NC	39.7	Norfolk Southern	Active	Conventional Bore
Alamance, NC	69.8 RR	Norfolk Southern Railway	Active	Conventional Bore

REVISED [Oct 2019] - Table 8.4-1

Federal, State, Recreation, and Conservation Lands Crossed by or Located within 0.25 mile of the Southgate Project

County, State	Milepost	Name of Area	Land Ownership / Management	Pipeline Crossing Length (feet)	Land Use a/	Area Affected (Acres)		Distance and Direction from Pipeline or Facility (feet)	Crossing Method / Special Construction Measures
						Construction	Operation		
H-605 Pipeline									
None Identified									
H-650 Pipeline									
Pittsylvania, Virginia	4.3	Designated Banister River Segment / Future Blueway	State Designated	N/A	N/A	N/A	N/A	1,162 feet southeast of MP 4.3	N/A
Pittsylvania, Virginia	4.9	Banister River Future Blueway	Upper Reach Roanoke River Basin Association	48	OW	0.1	0.0	0	Open cut – Dam and pump, Flume
Pittsylvania, Virginia	5.5 – 6.6	Pittsylvania County Parcels	Pittsylvania County	5,835	AG, CI, FW, OL	18.2	6.6	0	Conventional open-cut
Pittsylvania, Virginia	14.2RR	Easement	Virginia Outdoors Foundation	N/A	N/A	N/A	N/A	914 feet southeast of MP 14.2RR	N/A
Pittsylvania, Virginia	17.7RR	Designated Sandy River Segment	State Designated	113	OW	0.2	0.0	0	Open cut – Dam and pump Flume
Pittsylvania, Virginia	22.3 – 24.8	Berry Hill Industrial Park	Pittsylvania Regional Industrial Facility Authority (i.e., Commonwealth of Virginia)	13,608	FW, OL, OW, WL	41.2	15.2	0	Conventional open-cut
Rockingham, North Carolina	30.1	Dan River Trail / Nationwide Rivers Inventory	North Carolina Watercraft Trail	N/A (HDD)	OW	0.0	0.0	0	HDD
Rockingham, North Carolina	37.7 – 38.0	Conservation Easement	Piedmont Land Conservancy	139	FW, OL, OW	0.3	0.1	0	Conventional open-cut
Rockingham, North Carolina	38.8 – 39.0	None	City of Reidsville	1,207	FW, OL	4.3	1.4	0	Conventional open-cut
Alamance, North Carolina	56.9	Ace Speedway	Private	N/A	N/A	N/A	N/A	94 feet west of MP 56.9	N/A
Alamance, North Carolina	58.7	AOI Study Area – Land being considered during the master planning process	North Carolina Division of Parks and Recreation	N/A	N/A	N/A	N/A	870 feet southwest of MP 58.7	N/A

REVISED [Oct 2019] - Table 8.4-1

Federal, State, Recreation, and Conservation Lands Crossed by or Located within 0.25 mile of the Southgate Project

County, State	Milepost	Name of Area	Land Ownership / Management	Pipeline Crossing Length (feet)	Land Use a/	Area Affected (Acres)		Distance and Direction from Pipeline or Facility (feet)	Crossing Method / Special Construction Measures
						Construction	Operation		
Alamance, North Carolina	60.7	Mitigation Easement	North Carolina Division of Mitigation Services	N/A	N/A	N/A	N/A	551 feet north of MP 60.7	N/A
Alamance, North Carolina	65.6	Conservation Easement	Private	0	FW, OL	0.3	<0.1	0	Conventional open-cut
Alamance, North Carolina	68.6	Planned Regional Trail	North Carolina Division of Parks and Recreation	Unknown	FW, OL	Unknown	Unknown	0	Conventional open-cut
Alamance, North Carolina	68.9 – 69.3	Mountains-To-Sea Trail	North Carolina Division of Parks and Recreation	0	N/A	N/A	N/A	450 feet northwest of MP 69.1	N/A
Alamance, North Carolina	69.6	Mountains-To-Sea Trail	North Carolina Division of Parks and Recreation	N/A (conventional bore)	CI	0.0	0.0	0	Conventional Bore
Alamance, North Carolina	69.6 – 69.7	Town of Haw River	Town of Haw River	0	CI, OL, FW	1.0	0.0	0	Conventional open-cut and conventional bore
Alamance, North Carolina	69.7RR – 73.1RR	Planned Haw River Trail / Nationwide Rivers Inventory	Haw River Trail Partnership	N/A	N/A	N/A	N/A	190 feet west of MP 71.6	N/A
Alamance, North Carolina	70.0 – 71.3	Challenge Golf Club	Private	N/A	N/A	N/A	N/A	440 feet west of MP 71.3	N/A
Alamance, North Carolina	70.2RR	Haw River Sanitary District Facility	Town of Haw River	196	FW	0.4	0.2	0	Conventional open-cut
Alamance, North Carolina	71.4 – 71.7	Easement	North Carolina Clean Water Trust Fund	N/A	N/A	N/A	N/A	177 feet west of MP 71.6	N/A
Alamance, North Carolina	71.8	Easement	North Carolina Clean Water Trust Fund	N/A	N/A	N/A	N/A	446 feet west of MP 71.8	N/A
Alamance, North Carolina	72.9RR	Graham Paddle Access – Haw River Trail	City of Graham	N/A	N/A	N/A	N/A	220 feet northwest of ATWS 1692 near MP 72.9 RR	N/A
Alamance, North Carolina	73.2RR b/	Easement	Private	1,426	CI, OL, WL	7.3	1.5	0	Open cut / TBD
Contractor Yards									

REVISED [Oct 2019] - Table 8.4-1

Federal, State, Recreation, and Conservation Lands Crossed by or Located within 0.25 mile of the Southgate Project

County, State	Milepost	Name of Area	Land Ownership / Management	Pipeline Crossing Length (feet)	Land Use a/	Area Affected (Acres)		Distance and Direction from Pipeline or Facility (feet)	Crossing Method / Special Construction Measures
						Construction	Operation		
Rockingham, North Carolina	44.8	Mitigation Easement	North Carolina Division of Mitigation Services	N/A	N/A	N/A	N/A	508 feet west of CY-08	N/A
Access Roads									
Pittsylvania, Virginia	5.6 – 5.8	Pittsylvania County Parcel	Pittsylvania County	N/A	FW, OL	0.6	0.0	TA-PI-015	Stone and Widening
Pittsylvania, Virginia	5.9	Pittsylvania County Parcel	Pittsylvania County	N/A	CI, FW, OL	2.0	0.0	TA-PI-016	Stone and Widening
Pittsylvania, Virginia	6.2	Pittsylvania County Parcel	Pittsylvania County	N/A	CI, OL	0.5	0.0	TA-PI-017	Stone and Widening
Pittsylvania, Virginia	14.2RR	Easement	Virginia Outdoors Foundation	N/A	N/A	N/A	N/A	TA-PI-035	N/A
Pittsylvania, Virginia	23.0RR	Berry Hill Industrial Park	Pittsylvania Regional Industrial Facility Authority (i.e., Commonwealth of Virginia)	N/A	FW, OL, OW, WL	2.0	0.0	TA-PI-061	Stone, Widening, and Culverts
Pittsylvania, Virginia	24.0	Berry Hill Industrial Park	Pittsylvania Regional Industrial Facility Authority (i.e., Commonwealth of Virginia)	N/A	CI, FW, OL, OW	1.6	0.0	TA-PI-063	Stone, Widening, and Culverts
Rockingham, North Carolina	38.8 – 39.0	None	City of Reidsville	N/A	FW, OL	0.1	0.0	TA-RO-106	Stone and Widening
Alamance, North Carolina	56.8 - 56.9	Ace Speedway	Private	N/A	CI, OL	0.3	0.0	TA-AL-159A	Stone and Widening
Alamance, North Carolina	73.2RR	Easement	Private	N/A	OL	<0.1	<0.1	PA-AL-194	TBD
T-21 Haw River Interconnect / MLV 8									
Alamance, North Carolina	72.9RR - 73.2RR	Easement	Private	N/A	OL	1.3	0.6	0	TBD

REVISED [Oct 2019] - Table 8.4-1

Federal, State, Recreation, and Conservation Lands Crossed by or Located within 0.25 mile of the Southgate Project

County, State	Milepost	Name of Area	Land Ownership / Management	Pipeline Crossing Length (feet)	Land Use a/	Area Affected (Acres)		Distance and Direction from Pipeline or Facility (feet)	Crossing Method / Special Construction Measures
						Construction	Operation		

Notes:
ATWS = additional temporary workspace; HDD = horizontal directional drill; MP = milepost; CY = Contractor Yard; N/A = not applicable.
Mileposts with an "RR" indicate locations where a re-route was incorporated into the pipeline alignment.
a/ FW = Upland Forest / Woodland; CI = Commercial / Industrial, OL = Upland Open Land; OW = Open Water; RD = Residential; WL = Wetland.
b/ Boundary of conservation easement to be verified during pipeline easement negotiations with the landowner.

REVISED [Oct 2019] - Table 8-A

Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
H-605 Pipeline			
Upland Forest / Woodland	0.00	0.12	637.6
Wetland	0.12	0.12	11.7
Open Water	0.12	0.12	6.0
Upland Forest / Woodland	0.12	0.27	782.8
Upland Open Land	0.27	0.28	44.7
Agriculture	0.28	0.34	333.9
Upland Open Land	0.34	0.37	128.2
Upland Forest / Woodland	0.37	0.37	30.2
Upland Open Land	0.37	0.38	30.9
Agriculture	0.38	0.41	158.1
Upland Open Land	0.41	0.42	40.9
Upland Forest / Woodland	0.42	0.43	41.6
Upland Open Land	0.43	0.45	153.9
Agriculture	0.45	0.47	85.8
H-650 Pipeline			
Agriculture	0.0 RR	0.05 RR	256.7
Upland Open Land	0.05 RR	0.10 RR	286.8
Upland Forest / Woodland	0.10 RR	0.16	446.6
Wetland	0.16	0.17	57.5
Upland Forest / Woodland	0.17	0.32	750.2
Wetland	0.32	0.38	344.9
Upland Open Land	0.38	0.39	18.6
Upland Forest / Woodland	0.39	0.39	1.5
Wetland	0.39	0.39	11.4
Upland Forest / Woodland	0.39	0.39	18.3
Open Water	0.39	0.40	21.4
Upland Forest / Woodland	0.40	0.42	113.4
Upland Open Land	0.42	0.44	132.8
Upland Forest / Woodland	0.44	0.52	399.5
Upland Open Land	0.52	0.55	152.7
Upland Forest / Woodland	0.55	0.55	16.4
Open Water	0.55	0.55	14.1
Wetland	0.55	0.56	30.3
Upland Forest / Woodland	0.56	0.56	9.1
Upland Open Land	0.56	0.56	0.3
Wetland	0.56	0.60	194.4

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	0.60	0.71	573.1
Commercial/Industrial	0.71	0.71	25.4
Upland Open Land	0.71	0.87	830.6
Commercial/Industrial	0.87	0.87	26.7
Upland Open Land	0.87	0.92	225.0
Silviculture	0.92	0.96	252.6
Upland Forest / Woodland	0.96	0.98	86.3
Wetland	0.98	0.98	12.9
Upland Forest / Woodland	0.98	0.99	60.0
Upland Open Land	0.99	1.00	16.0
Agriculture	1.00	1.07	367.3
Upland Forest / Woodland	1.07	1.09	117.2
Agriculture	1.09	1.09	6.9
Upland Forest / Woodland	1.09	1.10	49.6
Open Water	1.10	1.10	4.6
Upland Forest / Woodland	1.10	1.11	44.7
Agriculture	1.11	1.13	116.4
Upland Forest / Woodland	1.13	1.15	115.3
Upland Open Land	1.15	1.32 RR	880.8
Upland Forest / Woodland	1.32 RR	1.37 RR	277.9
Upland Open Land	1.37 RR	1.37	137.9
Wetland	1.37	1.40	155.7
Upland Forest / Woodland	1.40	1.41	61.5
Wetland	1.41	1.41	10.6
Open Water	1.41	1.41	4.1
Wetland	1.41	1.46	254.8
Upland Forest / Woodland	1.46	1.47	35.9
Wetland	1.47	1.62	770.2
Upland Open Land	1.62	1.69	408.0
Wetland	1.69	1.70	55.3
Upland Open Land	1.70	1.70	8.0
Upland Forest / Woodland	1.70	1.71	46.4
Open Water	1.71	1.72	29.6
Upland Forest / Woodland	1.72	1.73	34.6
Upland Open Land	1.73	1.79	331.1
Wetland	1.79	2.18	2,072.4
Upland Open Land	2.18	2.21	145.3

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Wetland	2.21	2.22	48.7
Upland Forest / Woodland	2.22	2.22	12.5
Upland Open Land	2.22	2.30	407.8
Upland Forest / Woodland	2.30	2.43	685.2
Upland Open Land	2.43	2.45	95.9
Upland Forest / Woodland	2.45	2.51	361.1
Upland Open Land	2.51	2.52	53.2
Upland Forest / Woodland	2.52	2.53	41.7
Upland Open Land	2.53	2.53	14.7
Upland Forest / Woodland	2.53	2.54	48.4
Upland Open Land	2.54	2.55	21.6
Upland Forest / Woodland	2.55	2.57	143.3
Upland Open Land	2.57	2.78	1,093.0
Commercial/Industrial	2.78	2.79	27.2
Agriculture	2.79	2.91	672.7
Commercial/Industrial	2.91	2.92	24.6
Agriculture	2.92	2.98	297.5
Commercial/Industrial	2.98	2.98	28.6
Agriculture	2.98	3.17	999.2
Upland Open Land	3.17	3.23	294.5
Upland Forest / Woodland	3.23	3.23	3.7
Open Water	3.23	3.23	7.8
Upland Forest / Woodland	3.23	3.24	52.4
Upland Open Land	3.24	3.26	110.6
Agriculture	3.26	3.40	748.8
Commercial/Industrial	3.40	3.40	15.2
Agriculture	3.40	3.56	813.2
Upland Forest / Woodland	3.56	3.58	92.5
Wetland	3.58	3.58	43.7
Open Water	3.58	3.59	9.8
Wetland	3.59	3.59	1.4
Upland Forest / Woodland	3.59	3.60	80.0
Agriculture	3.60	3.80 RR	1,049.9
Upland Forest / Woodland	3.80 RR	3.81 RR	56.1
Agriculture	3.81 RR	3.82 RR	36.7
Upland Forest / Woodland	3.82 RR	3.84 RR	120.3
Upland Open Land	3.84 RR	3.87 RR	181.4

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	3.87 RR	3.89 RR	91.5
Upland Open Land	3.89 RR	3.91 RR	72.8
Upland Forest / Woodland	3.91 RR	3.94 RR	162.7
Agriculture	3.94 RR	4.02	497.4
Upland Forest / Woodland	4.02	4.02	35.8
Wetland	4.02	4.02	5.1
Open Water	4.02	4.03	5.7
Upland Forest / Woodland	4.03	4.03	18.3
Agriculture	4.03	4.11	444.8
Upland Forest / Woodland	4.11	4.12	50.0
Open Water	4.12	4.12	3.8
Upland Forest / Woodland	4.12	4.13	32.7
Agriculture	4.13	4.24	556.9
Commercial/Industrial	4.24	4.24	21.7
Upland Open Land	4.24	4.27	186.2
Commercial/Industrial	4.27	4.28	16.3
Upland Forest / Woodland	4.28	4.32	232.0
Commercial/Industrial	4.32	4.34	117.4
Upland Open Land	4.34	4.35	35.6
Upland Forest / Woodland	4.35	4.41	330.6
Upland Open Land	4.41	4.50	436.2
Upland Forest / Woodland	4.50	4.50	11.9
Upland Open Land	4.50	4.53	144.6
Upland Forest / Woodland	4.53	4.53	6.2
Upland Open Land	4.53	4.54	87.6
Upland Forest / Woodland	4.54	4.56	95.1
Upland Open Land	4.56	4.62	308.8
Upland Forest / Woodland	4.62	4.78	859.7
Upland Open Land	4.78	4.83	245.9
Upland Forest / Woodland	4.83	4.84	46.6
Open Water	4.84	4.84	4.0
Upland Forest / Woodland	4.84	4.84	9.0
Upland Open Land	4.84	4.85	63.7
Wetland	4.85	4.92	382.1
Upland Open Land	4.92	4.93	50.9
Open Water	4.93	4.94	48.4
Upland Open Land	4.94	4.99	267.2

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	4.99	5.01	78.3
Wetland	5.01	5.01	13.5
Open Water	5.01	5.02	32.7
Wetland	5.02	5.04	123.4
Upland Forest / Woodland	5.04	5.05	68.0
Upland Open Land	5.05	5.06	34.2
Upland Forest / Woodland	5.06	5.10	214.3
Upland Open Land	5.10	5.11	30.9
Upland Forest / Woodland	5.11	5.12	43.1
Wetland	5.12	5.13	86.5
Open Water	5.13	5.14	23.0
Upland Forest / Woodland	5.14	5.14	46.1
Wetland	5.14	5.20	308.8
Upland Forest / Woodland	5.20	5.22	71.8
Wetland	5.22	5.24	122.4
Upland Forest / Woodland	5.24	5.25	30.4
Upland Open Land	5.25	5.25	19.9
Commercial/Industrial	5.25	5.26	53.4
Upland Open Land	5.26	5.27	40.0
Upland Forest / Woodland	5.27	5.42	800.0
Upland Open Land	5.42	5.43	54.9
Upland Forest / Woodland	5.43	5.45	128.5
Upland Open Land	5.45	5.49	199.0
Upland Forest / Woodland	5.49	5.55	312.9
Upland Open Land	5.55	5.56	62.6
Upland Forest / Woodland	5.56	5.58	101.5
Upland Open Land	5.58	5.72	708.6
Upland Forest / Woodland	5.72	5.76	216.0
Upland Open Land	5.76	5.76	18.8
Upland Forest / Woodland	5.76	5.79	155.8
Upland Open Land	5.79	5.94	818.2
Upland Forest / Woodland	5.94	5.95	30.2
Upland Open Land	5.95	5.98	163.6
Upland Forest / Woodland	5.98	6.00	90.2
Upland Open Land	6.00	6.11	569.0
Upland Forest / Woodland	6.11	6.15	225.4
Upland Open Land	6.15	6.15	14.5

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	6.15	6.19	223.1
Upland Open Land	6.19	6.21	69.3
Upland Forest / Woodland	6.21	6.22	67.6
Upland Open Land	6.22	6.40	926.9
Upland Forest / Woodland	6.40	6.40	19.3
Upland Open Land	6.40	6.44	232.2
Upland Forest / Woodland	6.44	6.47	165.7
Upland Open Land	6.47	6.55	385.8
Upland Forest / Woodland	6.55	6.56	72.7
Upland Open Land	6.56	6.57	50.6
Upland Forest / Woodland	6.57	6.57	10.3
Wetland	6.57	6.58	53.3
Upland Forest / Woodland	6.58	6.61	135.4
Upland Open Land	6.61	6.62	79.5
Upland Forest / Woodland	6.62	6.64	78.0
Upland Open Land	6.64	6.64	20.8
Open Water	6.64	6.64	5.3
Upland Open Land	6.64	6.69	232.1
Upland Forest / Woodland	6.69	6.70	91.0
Upland Open Land	6.70	6.72	70.5
Upland Forest / Woodland	6.72	6.74	108.2
Upland Open Land	6.74	6.75	42.1
Upland Forest / Woodland	6.75	6.75	36.1
Upland Open Land	6.75	6.76	32.5
Upland Forest / Woodland	6.76	6.84	433.3
Upland Open Land	6.84	6.85	38.8
Upland Forest / Woodland	6.85	6.94	488.9
Upland Open Land	6.94	6.96	85.3
Upland Forest / Woodland	6.96	6.96	25.8
Open Water	6.96	6.96	3.9
Upland Forest / Woodland	6.96	6.98	114.6
Open Water	6.98	6.99	5.3
Upland Forest / Woodland	6.99	6.99	39.0
Upland Open Land	6.99	7.03	208.9
Upland Forest / Woodland	7.03	7.06	121.6
Agriculture	7.06	7.11	312.6
Upland Open Land	7.11	7.17	271.6

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Commercial/Industrial	7.17	7.17	38.9
Upland Open Land	7.17	7.32	752.2
Upland Forest / Woodland	7.32	7.35	177.2
Upland Open Land	7.35	7.36	48.6
Upland Forest / Woodland	7.36	7.37	38.6
Upland Open Land	7.37	7.37	46.0
Commercial/Industrial	7.37	7.42	221.7
Upland Open Land	7.42	7.50	425.7
Upland Forest / Woodland	7.50	7.50	1.6
Upland Open Land	7.50	7.51	48.6
Upland Forest / Woodland	7.51	7.51	21.6
Upland Open Land	7.51	7.58	375.2
Open Water	7.58	7.58	3.2
Upland Open Land	7.58	7.62	186.8
Upland Forest / Woodland	7.62	7.65	165.4
Upland Open Land	7.65	7.97	1,719.1
Wetland	7.97	7.98	3.2
Open Water	7.98	7.98	9.1
Wetland	7.98	7.98	4.9
Upland Forest / Woodland	7.98	7.99	76.5
Upland Open Land	7.99	8.08	448.9
Commercial/Industrial	8.08	8.08	22.4
Upland Open Land	8.08	8.13	272.7
Upland Forest / Woodland	8.13	8.17	178.4
Upland Open Land	8.17	8.38	1,119.5
Upland Forest / Woodland	8.38	8.38	5.2
Upland Open Land	8.38	8.40	125.9
Wetland	8.40	8.42	97.5
Upland Open Land	8.42	8.43	35.9
Upland Forest / Woodland	8.43	8.45	125.6
Upland Open Land	8.45	8.52	357.3
Upland Forest / Woodland	8.52	8.52	11.6
Upland Open Land	8.52	8.53	24.2
Wetland	8.53	8.55	93.4
Open Water	8.55	8.55	8.1
Wetland	8.55	8.55	32.4
Upland Open Land	8.55	8.56	18.9

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	8.56	8.56	14.2
Open Water	8.56	8.56	9.3
Upland Open Land	8.56	8.57	33.0
Wetland	8.57	8.58	46.6
Upland Forest / Woodland	8.58	8.59	96.4
Upland Open Land	8.59	8.78	987.1
Upland Forest / Woodland	8.78	8.85	380.2
Upland Open Land	8.85	8.85	3.7
Upland Forest / Woodland	8.85	8.88	132.5
Upland Open Land	8.88	8.90	112.1
Upland Forest / Woodland	8.90	8.93	156.8
Upland Open Land	8.93	8.96	166.0
Upland Forest / Woodland	8.96	9.05	459.4
Open Water	9.05	9.05	23.0
Upland Forest / Woodland	9.05	9.10	228.7
Upland Open Land	9.10	9.10	41.9
Upland Forest / Woodland	9.10	9.11	17.1
Upland Open Land	9.11	9.12	76.9
Agriculture	9.12	9.34	1,154.3
Commercial/Industrial	9.34	9.34	20.1
Upland Open Land	9.34	9.35	15.6
Upland Forest / Woodland	9.35	9.36	52.2
Upland Open Land	9.36	9.42	349.3
Upland Forest / Woodland	9.42	9.52	486.3
Agriculture	9.52	9.59	373.1
Upland Open Land	9.59	9.59	22.2
Upland Forest / Woodland	9.59	9.67	411.0
Wetland	9.67	9.71	211.0
Upland Forest / Woodland	9.71	9.72	50.1
Upland Open Land	9.72	9.75	152.3
Wetland	9.75	9.78	181.5
Upland Open Land	9.78	9.81	147.2
Agriculture	9.81	9.84	163.2
Upland Open Land	9.84	9.85	50.9
Upland Forest / Woodland	9.85	9.86	45.1
Upland Open Land	9.86	9.88	102.1
Agriculture	9.88	9.89	55.9

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	9.89	9.89	11.7
Upland Forest / Woodland	9.89	9.90	40.0
Open Water	9.90	9.90	2.6
Upland Forest / Woodland	9.90	9.90	14.0
Wetland	9.90	9.91	26.7
Upland Forest / Woodland	9.91	9.92	89.8
Open Water	9.92	9.93	13.9
Upland Forest / Woodland	9.93	9.94	75.7
Wetland	9.94	9.95	40.2
Upland Forest / Woodland	9.95	10.07	670.7
Upland Open Land	10.07	10.08	14.1
Upland Forest / Woodland	10.08	10.08	18.6
Wetland	10.08	10.08	3.3
Upland Forest / Woodland	10.08	10.13	272.4
Upland Open Land	10.13	10.14	36.0
Upland Forest / Woodland	10.14	10.20	322.7
Upland Open Land	10.20	10.21	26.4
Commercial/Industrial	10.21	10.21	33.3
Upland Open Land	10.21	10.22	58.2
Residential	10.22	10.26	193.7
Upland Open Land	10.26	10.34	401.6
Upland Forest / Woodland	10.34	10.44	530.6
Commercial/Industrial	10.44	10.44	9.3
Upland Forest / Woodland	10.44	10.71	1,456.2
Residential	10.71	10.74	146.2
Commercial/Industrial	10.74	10.75	27.9
Upland Open Land	10.75	10.76	54.7
Upland Forest / Woodland	10.76	10.79	157.3
Upland Open Land	10.79	10.99	1,068.0
Upland Forest / Woodland	10.99	11.03	220.1
Open Water	11.03	11.04	27.0
Upland Forest / Woodland	11.04	11.04	11.5
Open Water	11.04	11.04	4.3
Upland Forest / Woodland	11.04	11.04	18.1
Open Water	11.04	11.04	8.8
Upland Forest / Woodland	11.04	11.06	108.8
Upland Open Land	11.06	11.17	554.2

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	11.17	11.24	353.9
Agriculture	11.24	11.25	77.6
Upland Forest / Woodland	11.25	11.26	71.9
Upland Open Land	11.26	11.27	29.1
Upland Forest / Woodland	11.27	11.39	636.0
Open Water	11.39	11.39	11.6
Upland Forest / Woodland	11.39	11.40	59.5
Upland Open Land	11.40	11.49	435.7
Upland Forest / Woodland	11.49	11.49	16.7
Upland Open Land	11.49	11.54	267.1
Upland Forest / Woodland	11.54	11.62	394.5
Wetland	11.62	11.62	29.0
Open Water	11.62	11.62	4.2
Wetland	11.62	11.63	20.0
Upland Forest / Woodland	11.63	11.91	1,487.0
Open Water	11.91	11.91	22.9
Upland Forest / Woodland	11.91	12.00	449.8
Upland Open Land	12.00	12.00	24.0
Upland Forest / Woodland	12.00	12.05	255.9
Upland Open Land	12.05	12.12	397.2
Upland Forest / Woodland	12.12	12.18	305.6
Agriculture	12.18	12.36	913.4
Commercial/Industrial	12.36	12.36	23.5
Agriculture	12.36	12.51	787.8
Upland Forest / Woodland	12.51	12.52	71.7
Agriculture	12.52	12.72	1,019.4
Upland Forest / Woodland	12.72	12.73	97.1
Upland Open Land	12.73	12.74	12.7
Upland Forest / Woodland	12.74	12.76	143.7
Wetland	12.76	12.77	7.5
Open Water	12.77	12.77	15.3
Wetland	12.77	12.77	5.8
Upland Forest / Woodland	12.77	13.04	1,405.1
Upland Open Land	13.04	13.24	1,091.2
Upland Forest / Woodland	13.24	13.27	134.2
Upland Open Land	13.27	13.37	557.9
Commercial/Industrial	13.37	13.38	20.6

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	13.38	13.38	28.9
Upland Forest / Woodland	13.38	13.42 RR	201.4
Wetland	13.42 RR	13.43 RR	63.5
Open Water	13.43 RR	13.44 RR	11.3
Upland Forest / Woodland	13.44 RR	13.45 RR	67.8
Wetland	13.45 RR	13.45 RR	19.6
Upland Forest / Woodland	13.45 RR	13.46 RR	25.6
Wetland	13.46 RR	13.46 RR	6.7
Upland Forest / Woodland	13.46 RR	13.46 RR	20.3
Wetland	13.46 RR	13.47 RR	23.1
Upland Forest / Woodland	13.47 RR	13.52 RR	281.5
Upland Open Land	13.52 RR	13.58 RR	307.6
Upland Forest / Woodland	13.58 RR	13.59 RR	75.8
Upland Open Land	13.59 RR	13.6 RR	47.8
Upland Forest / Woodland	13.60 RR	13.76 RR	861.0
Upland Open Land	13.76 RR	13.79 RR	158.7
Upland Forest / Woodland	13.79 RR	13.83 RR	167.2
Upland Open Land	13.83 RR	13.83 RR	49.1
Upland Forest / Woodland	13.83 RR	13.96 RR	634.1
Upland Open Land	13.96 RR	13.99 RR	195.5
Upland Forest / Woodland	13.99 RR	14.06 RR	363.6
Upland Open Land	14.06 RR	14.22 RR	847.0
Upland Forest / Woodland	14.22 RR	14.31 RR	480.4
Wetland	14.31 RR	14.32 RR	60.6
Upland Forest / Woodland	14.32 RR	14.34 RR	70.8
Open Water	14.34 RR	14.34 RR	9.8
Upland Forest / Woodland	14.34 RR	14.59 RR	1,343.3
Upland Open Land	14.59 RR	14.61 RR	83.3
Upland Forest / Woodland	14.61 RR	14.62 RR	56.2
Upland Open Land	14.62 RR	14.63 RR	35.4
Upland Forest / Woodland	14.63 RR	14.70 RR	362.5
Upland Open Land	14.70 RR	14.70	417.6
Upland Forest / Woodland	14.70	14.72	96.8
Open Water	14.72	14.72	2.5
Wetland	14.72	14.72	3.3
Upland Forest / Woodland	14.72	14.75	122.8
Upland Open Land	14.75	14.85	536.7

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Commercial/Industrial	14.85	14.85	24.0
Agriculture	14.85	15.21	1,891.3
Upland Open Land	15.21	15.21	17.8
Upland Forest / Woodland	15.21	15.22	29.2
Open Water	15.22	15.22	5.1
Upland Forest / Woodland	15.22	15.28	314.4
Agriculture	15.28	15.37 RR	479.5
Upland Forest / Woodland	15.37 RR	15.37 RR	9.7
Upland Open Land	15.37 RR	15.38 RR	42.1
Silviculture	15.38 RR	15.46	420.8
Upland Forest / Woodland	15.46	15.47	38.2
Upland Open Land	15.47	15.66	1,038.2
Upland Forest / Woodland	15.66	15.69	159.3
Open Water	15.69	15.70	24.0
Upland Forest / Woodland	15.70	15.85	792.8
Upland Open Land	15.85	15.86	73.6
Upland Forest / Woodland	15.86	15.87	27.0
Open Water	15.87	15.87	6.3
Upland Forest / Woodland	15.87	15.93	320.7
Upland Open Land	15.93	15.93	12.1
Commercial/Industrial	15.93	15.94	23.4
Upland Open Land	15.94	15.95	49.3
Upland Forest / Woodland	15.95	16.00	285.8
Open Water	16.00	16.00	4.9
Upland Forest / Woodland	16.00	16.01	21.3
Open Water	16.01	16.01	2.0
Upland Forest / Woodland	16.01	16.04	174.2
Upland Open Land	16.04	16.10	336.2
Upland Forest / Woodland	16.10	16.11	18.7
Upland Open Land	16.11	16.13	151.1
Upland Forest / Woodland	16.13	16.14	32.9
Upland Open Land	16.14	16.15	73.4
Upland Forest / Woodland	16.15	16.16	37.6
Open Water	16.16	16.16	2.5
Wetland	16.16	16.17	39.2
Upland Forest / Woodland	16.17	16.26	502.0
Agriculture	16.26	16.44	933.7

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Commercial/Industrial	16.44	16.45	41.4
Agriculture	16.45	16.50	265.3
Upland Forest / Woodland	16.50	16.51	66.8
Agriculture	16.51	16.58	374.2
Upland Forest / Woodland	16.58	16.59	25.5
Agriculture	16.59	16.68	502.0
Upland Forest / Woodland	16.68	16.71	152.7
Upland Open Land	16.71	16.72	22.0
Agriculture	16.72	16.79	369.9
Upland Forest / Woodland	16.79	16.79	43.9
Open Water	16.79	16.80	5.7
Upland Forest / Woodland	16.80	16.81	73.2
Agriculture	16.81	16.94	697.2
Upland Forest / Woodland	16.94	16.96	71.3
Open Water	16.96	16.96	2.4
Upland Forest / Woodland	16.96	16.99	168.1
Agriculture	16.99	17.06	378.3
Upland Forest / Woodland	17.06	17.06	20.1
Agriculture	17.06	17.12	307.8
Upland Forest / Woodland	17.12	17.13	54.3
Agriculture	17.13	17.23	531.9
Upland Open Land	17.23	17.26	125.0
Upland Forest / Woodland	17.26	17.30	215.7
Open Water	17.30	17.30	11.6
Upland Forest / Woodland	17.30	17.34	226.2
Upland Open Land	17.34	17.50 RR	839.3
Upland Forest / Woodland	17.50 RR	17.50 RR	5.5
Upland Open Land	17.50 RR	17.57 RR	345.7
Upland Forest / Woodland	17.57 RR	17.66 RR	501.9
Open Water	17.66 RR	17.68 RR	113.4
Upland Forest / Woodland	17.68 RR	17.69 RR	32.9
Wetland	17.69 RR	17.70 RR	34.4
Upland Forest / Woodland	17.70 RR	17.81 RR	600.9
Open Water	17.81 RR	17.81 RR	5.9
Upland Forest / Woodland	17.81 RR	18.01	1,441.6
Open Water	18.01	18.02	6.0
Upland Forest / Woodland	18.02	18.11	477.7

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	18.11	18.12	85.1
Upland Forest / Woodland	18.12	18.23	550.7
Upland Open Land	18.23	18.25	148.2
Commercial/Industrial	18.25	18.26	26.2
Agriculture	18.26	18.43	908.9
Upland Forest / Woodland	18.43	18.51	424.5
Agriculture	18.51	18.63	618.0
Upland Forest / Woodland	18.63	18.68	247.6
Upland Open Land	18.68	18.89	1,114.8
Upland Forest / Woodland	18.89	18.96	361.3
Upland Open Land	18.96	19.00	241.9
Upland Forest / Woodland	19.00	19.01	70.7
Commercial/Industrial	19.01	19.03	66.4
Upland Open Land	19.03	19.05	109.9
Agriculture	19.05	19.20	828.2
Residential	19.20	19.23	155.4
Upland Open Land	19.23	19.24	46.8
Commercial/Industrial	19.24	19.25	37.6
Agriculture	19.25	19.33	444.0
Upland Forest / Woodland	19.33	19.34	3.3
Agriculture	19.34	19.42	434.2
Upland Open Land	19.42	19.43	88.9
Open Water	19.43	19.43	3.8
Upland Open Land	19.43	19.44	21.0
Upland Forest / Woodland	19.44	19.44	18.3
Upland Open Land	19.44	19.45	34.2
Upland Forest / Woodland	19.45	19.50	245.1
Residential	19.50	19.50	20.5
Upland Open Land	19.50	19.51	38.0
Upland Forest / Woodland	19.51	19.54	170.3
Upland Open Land	19.54	19.55	58.9
Upland Forest / Woodland	19.55	19.56	44.2
Upland Open Land	19.56	19.56	25.7
Upland Forest / Woodland	19.56	19.59	154.0
Upland Open Land	19.59	19.60	18.3
Upland Forest / Woodland	19.60	19.60	18.3
Upland Open Land	19.60	19.62	126.5

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	19.62	19.63	57.2
Upland Open Land	19.63	19.67	207.0
Upland Forest / Woodland	19.67	19.68	41.0
Upland Open Land	19.68	19.68	3.3
Upland Forest / Woodland	19.68	19.71	170.0
Open Water	19.71	19.72	8.9
Upland Open Land	19.72	19.72	50.9
Upland Forest / Woodland	19.72	19.73	26.8
Upland Open Land	19.73	19.79	309.2
Upland Forest / Woodland	19.79	19.79	12.1
Upland Open Land	19.79	19.87	443.6
Upland Forest / Woodland	19.87	19.93	310.2
Upland Open Land	19.93	19.94	35.3
Commercial/Industrial	19.94	19.97	181.4
Upland Open Land	19.97	20.09	613.3
Residential	20.09	20.12	147.0
Upland Open Land	20.12	20.14	109.5
Residential	20.14	20.17	151.0
Upland Open Land	20.17	20.17	19.9
Upland Forest / Woodland	20.17	20.19	87.9
Upland Open Land	20.19	20.23	213.7
Upland Forest / Woodland	20.23	20.28	283.8
Agriculture	20.28	20.37	441.1
Upland Forest / Woodland	20.37	20.38	72.5
Wetland	20.38	20.38	5.3
Open Water	20.38	20.38	9.3
Wetland	20.38	20.38	3.0
Open Water	20.38	20.38	4.3
Upland Forest / Woodland	20.38	20.39	7.7
Upland Open Land	20.39	20.50	610.9
Agriculture	20.50	20.53	145.8
Upland Open Land	20.53	20.58	246.3
Upland Forest / Woodland	20.58	20.60	152.1
Open Water	20.60	20.61	6.2
Wetland	20.61	20.61	2.2
Upland Forest / Woodland	20.61	20.61	24.8
Upland Open Land	20.61	20.66	271.5

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	20.66	20.70	201.1
Upland Open Land	20.70	20.74	233.2
Upland Forest / Woodland	20.74	20.87	663.2
Agriculture	20.87	20.90	141.2
Upland Open Land	20.90	20.92	118.4
Agriculture	20.92	20.94	110.1
Upland Forest / Woodland	20.94	20.97	168.2
Open Water	20.97	20.97	7.8
Upland Forest / Woodland	20.97	20.98	38.6
Wetland	20.98	20.99	53.6
Upland Forest / Woodland	20.99	21.07	441.0
Upland Open Land	21.07	21.16	463.4
Upland Forest / Woodland	21.16	21.18	120.0
Upland Open Land	21.18	21.22	192.1
Wetland	21.22	21.23	54.1
Upland Forest / Woodland	21.23	21.24	29.1
Open Water	21.24	21.24	4.4
Upland Forest / Woodland	21.24	21.24	13.1
Wetland	21.24	21.26	82.6
Upland Forest / Woodland	21.26	21.29	189.6
Upland Open Land	21.29	21.34	262.8
Upland Forest / Woodland	21.34	21.81	2,498.6
Residential	21.81	21.85	209.1
Upland Forest / Woodland	21.85	21.91	305.0
Upland Open Land	21.91	21.92	18.8
Upland Forest / Woodland	21.92	22.00	453.4
Wetland	22.00	22.00	2.4
Open Water	22.00	22.01	18.6
Wetland	22.01	22.01	4.8
Upland Forest / Woodland	22.01	22.02	53.4
Residential	22.02	22.04	107.7
Upland Open Land	22.04	22.04	2.1
Wetland	22.04	22.04	35.2
Upland Open Land	22.04	22.04	0.0
Commercial/Industrial	22.04	22.05	25.9
Upland Open Land	22.05	22.05	31.1
Upland Forest / Woodland	22.05	22.07	58.5

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Open Water	22.07	22.07	0.8
Upland Forest / Woodland	22.07	22.07	8.1
Wetland	22.07	22.07	18.8
Upland Forest / Woodland	22.07	22.10	133.3
Upland Open Land	22.10	22.10	12.2
Upland Forest / Woodland	22.10	22.17	396.3
Open Water	22.17	22.18	8.3
Upland Forest / Woodland	22.18	22.27	490.5
Upland Open Land	22.27	22.27	14.7
Upland Forest / Woodland	22.27	22.34	385.3
Upland Open Land	22.34	22.35	6.2
Upland Forest / Woodland	22.35	22.43 RR	464.4
Upland Open Land	22.43 RR	22.46 RR	133.8
Upland Forest / Woodland	22.46 RR	22.49 RR	169.3
Open Water	22.49 RR	22.49 RR	4.1
Upland Forest / Woodland	22.49 RR	22.71 RR	1,161.8
Open Water	22.71 RR	22.71 RR	4.0
Upland Forest / Woodland	22.71 RR	23.02 RR	1,606.1
Upland Open Land	23.02 RR	23.02 RR	40.3
Upland Forest / Woodland	23.02 RR	23.06 RR	203.1
Wetland	23.06 RR	23.07 RR	20.1
Upland Forest / Woodland	23.07 RR	23.18 RR	579.4
Open Water	23.18 RR	23.18 RR	5.8
Upland Forest / Woodland	23.18 RR	23.21 RR	185.1
Open Water	23.21 RR	23.22 RR	24.6
Upland Forest / Woodland	23.22 RR	23.5 RR	1,506.4
Upland Open Land	23.5 RR	23.51 RR	25.6
Upland Forest / Woodland	23.51 RR	23.56 RR	255.9
Open Water	23.56 RR	23.56 RR	7.6
Upland Forest / Woodland	23.56 RR	23.76 RR	1,054.6
Upland Open Land	23.76 RR	23.76 RR	4.4
Commercial/Industrial	23.76 RR	23.76 RR	22.8
Upland Open Land	23.76 RR	23.76 RR	16.1
Upland Forest / Woodland	23.76 RR	23.8 RR	173.5
Upland Open Land	23.8 RR	23.81 RR	48.9
Upland Forest / Woodland	23.81 RR	23.89 RR	458.4
Open Water	23.89 RR	23.90 RR	9.5

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	23.90 RR	23.96 RR	340.0
Upland Open Land	23.96 RR	23.99 RR	135.7
Upland Forest / Woodland	23.99 RR	24.04	905.9
Upland Open Land	24.04	24.05	28.3
Upland Forest / Woodland	24.05	24.36	1,676.9
Open Water	24.36	24.37	7.6
Upland Forest / Woodland	24.37	24.69	1,695.3
Upland Open Land	24.69	24.72	176.6
Upland Forest / Woodland	24.72	24.78	326.0
Open Water	24.78	24.78	4.9
Upland Forest / Woodland	24.78	24.79	16.9
Open Water	24.79	24.79	3.9
Upland Forest / Woodland	24.79	24.84	296.0
Upland Open Land	24.84	24.84	9.9
Upland Forest / Woodland	24.84	24.96	622.4
Upland Open Land	24.96	24.97	17.5
Commercial/Industrial	24.97	24.97	44.6
Upland Forest / Woodland	24.97	25.06	435.4
Upland Open Land	25.06	25.06	24.4
Upland Forest / Woodland	25.06	25.12	325.9
Open Water	25.12	25.13	18.8
Upland Forest / Woodland	25.13	25.38	1,342.4
Upland Open Land	25.38	25.68	1,580.2
Upland Forest / Woodland	25.68	25.70	129.0
Open Water	25.70	25.71	11.0
Upland Forest / Woodland	25.71	25.85	750.3
Wetland	25.85	25.85	3.9
Open Water	25.85	25.85	6.3
Wetland	25.85	25.85	18.4
Upland Forest / Woodland	25.85	25.93	424.6
Upland Open Land	25.93	25.94	48.5
Upland Forest / Woodland	25.94	26.06	640.8
Wetland	26.06	26.08	96.5
Upland Forest / Woodland	26.08	26.18	521.4
Upland Open Land	26.18	26.20	79.1
Upland Forest / Woodland	26.20	26.21	75.3
Upland Open Land	26.21	26.22	23.1

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	26.22	26.22	35.6
Upland Open Land	26.22	26.23	53.1
Commercial/Industrial	26.23	26.24	34.0
Upland Forest / Woodland	26.24	26.53	1,551.4
Wetland	26.53	26.54	15.0
Upland Forest / Woodland	26.54	26.54	3.5
Upland Open Land	26.54	26.54	15.0
Commercial/Industrial	26.54	26.55	34.8
Upland Open Land	26.55	26.68 RR	690.6
Upland Forest / Woodland	26.68 RR	26.69 RR	75.7
Upland Open Land	26.69 RR	26.7 RR	29.6
Upland Forest / Woodland	26.7 RR	26.7 RR	2.6
Wetland	26.7 RR	26.71 RR	71.6
Upland Forest / Woodland	26.71 RR	26.71 RR	17.4
Upland Open Land	26.71 RR	26.83	605.7
Upland Forest / Woodland	26.83	26.94 RR	617.5
Commercial/Industrial	26.94 RR	26.95 RR	18.7
Upland Open Land	26.95 RR	26.95 RR	24.1
Agriculture	26.95 RR	27.07 RR	631.1
Wetland	27.07 RR	27.29	1,197.0
Upland Open Land	27.29	27.32	168.9
Upland Forest / Woodland	27.32	27.33	9.7
Wetland	27.33	27.33	37.9
Open Water	27.33	27.34	20.5
Upland Forest / Woodland	27.34	27.37	177.3
Upland Open Land	27.37	27.38	43.3
Agriculture	27.38	27.48	536.0
Upland Open Land	27.48	27.49	54.1
Upland Forest / Woodland	27.49	27.50	36.4
Open Water	27.50	27.52	137.5
Upland Forest / Woodland	27.52	27.52	9.1
Upland Open Land	27.52	27.55	117.6
Wetland	27.55	27.55	42.0
Upland Open Land	27.55	27.58	145.4
Wetland	27.58	27.59	38.1
Upland Open Land	27.59	27.60	46.6
Silviculture	27.60	27.62 RR	110.7

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	27.62 RR	27.64 RR	111.9
Agriculture	27.64 RR	27.76 RR	611.7
Silviculture	27.76 RR	27.78 RR	114.8
Agriculture	27.78 RR	27.86 RR	444.1
Silviculture	27.86 RR	27.89 RR	139.1
Agriculture	27.89 RR	27.97 RR	437.6
Upland Open Land	27.97 RR	28.11 RR	713.7
Wetland	28.11 RR	28.11 RR	23.5
Upland Open Land	28.11 RR	28.23 RR	642.7
Upland Forest / Woodland	28.23 RR	28.25 RR	108.7
Upland Open Land	28.25 RR	28.29 RR	214.2
Wetland	28.29 RR	28.30 RR	26.2
Upland Open Land	28.30 RR	28.34 RR	210.3
Upland Forest / Woodland	28.34 RR	28.34 RR	4.2
Wetland	28.34 RR	28.34 RR	17.8
Upland Forest / Woodland	28.34 RR	28.38 RR	184.0
Open Water	28.38 RR	28.38 RR	14.1
Upland Forest / Woodland	28.38 RR	28.47 RR	473.7
Upland Open Land	28.47 RR	28.53 RR	294.2
Silviculture	28.53 RR	28.53 RR	33.0
Upland Forest / Woodland	28.53 RR	28.64 RR	589.2
Wetland	28.64 RR	28.65 RR	40.6
Upland Forest / Woodland	28.65 RR	28.79	735.5
Upland Open Land	28.79	28.79	23.6
Upland Forest / Woodland	28.79	28.98	970.1
Upland Open Land	28.98	28.98	34.4
Upland Forest / Woodland	28.98	29.09	556.0
Wetland	29.09	29.09	23.4
Upland Forest / Woodland	29.09	29.18	461.1
Upland Open Land	29.18	29.18	13.4
Upland Forest / Woodland	29.18	29.19	18.4
Upland Open Land	29.19	29.19	13.4
Upland Forest / Woodland	29.19	29.23	227.1
Upland Open Land	29.23	29.24	36.3
Upland Forest / Woodland	29.24	29.27	168.1
Upland Open Land	29.27	29.28 RR	46.6
Upland Forest / Woodland	29.28 RR	29.30 RR	127.0

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	29.30 RR	29.31 RR	17.0
Upland Forest / Woodland	29.31 RR	29.59	1,616.1
Agriculture	29.59	29.67	419.3
Upland Forest / Woodland	29.67	29.68	64.2
Wetland	29.68	29.87	984.4
Upland Open Land	29.87	29.87	12.2
Agriculture	29.87	30.04	920.9
Upland Forest / Woodland	30.04	30.05	58.8
Open Water	30.05	30.10	247.3
Upland Forest / Woodland	30.10	30.11	62.8
Agriculture	30.11	30.19	398.3
Wetland	30.19	30.19	24.6
Agriculture	30.19	30.20	21.0
Wetland	30.20	30.21	40.5
Agriculture	30.21	30.21	40.1
Wetland	30.21	30.22	29.9
Agriculture	30.22	30.22	21.3
Wetland	30.22	30.23	31.6
Agriculture	30.23	30.24	65.2
Wetland	30.24	30.25	36.4
Agriculture	30.25	30.26	44.7
Wetland	30.26	30.27	48.2
Upland Forest / Woodland	30.27	30.31	244.5
Upland Open Land	30.31	30.32	33.3
Upland Forest / Woodland	30.32	30.32	6.9
Wetland	30.32	30.32	17.9
Upland Forest / Woodland	30.32	30.33	19.6
Upland Open Land	30.33	30.36	183.9
Wetland	30.36	30.37	26.7
Upland Open Land	30.37	30.43	360.6
Commercial/Industrial	30.43	30.44	19.6
Upland Open Land	30.44	30.44	2.6
Wetland	30.44	30.47	179.8
Upland Forest / Woodland	30.47	30.47	10.6
Upland Open Land	30.47	30.48	6.0
Commercial/Industrial	30.48	30.48	23.0
Upland Open Land	30.48	30.64	862.2

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Commercial/Industrial	30.64	30.66	82.8
Residential	30.66	30.67	50.6
Upland Open Land	30.67	30.70	151.8
Wetland	30.70	30.70	11.2
Upland Open Land	30.70	30.85	777.2
Upland Forest / Woodland	30.85	30.85	18.3
Upland Open Land	30.85	30.91	306.7
Upland Forest / Woodland	30.91	31.29	2,023.5
Open Water	31.29	31.30	28.3
Upland Forest / Woodland	31.30	31.62	1,707.8
Upland Open Land	31.62	31.63	53.6
Commercial/Industrial	31.63	31.64	27.6
Upland Open Land	31.64	31.66	115.6
Upland Forest / Woodland	31.66	31.68	128.5
Upland Open Land	31.68	31.69	54.7
Upland Forest / Woodland	31.69	31.73	201.5
Upland Open Land	31.73	31.77	207.7
Upland Forest / Woodland	31.77	31.96	1,006.2
Wetland	31.96	31.96	5.8
Upland Forest / Woodland	31.96	31.99	145.4
Wetland	31.99	32.02	176.8
Upland Forest / Woodland	32.02	32.03	32.2
Upland Open Land	32.03	32.03	31.3
Upland Forest / Woodland	32.03	32.15	618.7
Upland Open Land	32.15	32.16	60.7
Upland Forest / Woodland	32.16	32.18	61.5
Open Water	32.18	32.19	102.6
Upland Forest / Woodland	32.19	32.20	51.1
Upland Open Land	32.20	32.22	68.9
Wetland	32.22	32.24	104.5
Upland Open Land	32.24	32.47	1,219.7
Upland Forest / Woodland	32.47	32.48	37.6
Upland Open Land	32.48	32.50	149.6
Upland Forest / Woodland	32.50	32.52	74.3
Upland Open Land	32.52	32.58	336.1
Upland Forest / Woodland	32.58	32.61	171.4
Upland Open Land	32.61	32.62	15.3

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Wetland	32.62	32.62	21.1
Upland Open Land	32.62	32.63	51.9
Upland Forest / Woodland	32.63	32.63	23.4
Wetland	32.63	32.64	29.4
Upland Forest / Woodland	32.64	32.65	70.4
Open Water	32.65	32.66	55.4
Upland Open Land	32.66	32.66	2.0
Upland Forest / Woodland	32.66	32.86	1,046.6
Upland Open Land	32.86	32.87	46.7
Upland Forest / Woodland	32.87	32.88	24.5
Upland Open Land	32.88	32.88	16.2
Upland Forest / Woodland	32.88	32.93	252.1
Upland Open Land	32.93	32.93	13.7
Upland Forest / Woodland	32.93	32.93	16.3
Upland Open Land	32.93	32.94	13.7
Upland Forest / Woodland	32.94	32.98	215.5
Open Water	32.98	32.99	47.9
Upland Forest / Woodland	32.99	33.03	221.9
Upland Open Land	33.03	33.10	409.6
Wetland	33.10	33.12	68.5
Upland Forest / Woodland	33.12	33.18	337.9
Upland Open Land	33.18	33.19	28.6
Commercial/Industrial	33.19	33.19	34.3
Upland Forest / Woodland	33.19	33.42	1,193.0
Wetland	33.42	33.43	42.6
Upland Forest / Woodland	33.43	33.56	707.4
Upland Open Land	33.56	33.59	138.9
Upland Forest / Woodland	33.59	33.69	556.6
Wetland	33.69	33.70	10.6
Upland Forest / Woodland	33.70	34.04	1,827.7
Upland Open Land	34.04	34.13	463.1
Upland Forest / Woodland	34.13	34.19 RR	306.6
Upland Open Land	34.19 RR	34.21 RR	98.0
Open Water	34.21 RR	34.21 RR	32.9
Upland Open Land	34.21 RR	34.28	367.5
Upland Forest / Woodland	34.28	34.36	425.1
Upland Open Land	34.36	34.36	38.6

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	34.36	34.38	99.7
Upland Open Land	34.38	34.40	84.8
Upland Forest / Woodland	34.40	34.65	1,320.3
Open Water	34.65	34.65	16.7
Upland Forest / Woodland	34.65	34.79	724.6
Open Water	34.79	34.79	23.3
Upland Forest / Woodland	34.79	34.99	1,012.7
Upland Open Land	34.99	34.99	34.7
Open Water	34.99	34.99	7.5
Upland Open Land	34.99	35.02	144.4
Upland Forest / Woodland	35.02	35.37	1,832.3
Upland Open Land	35.37	35.37	24.7
Upland Forest / Woodland	35.37	35.38	60.9
Upland Open Land	35.38	35.43	233.4
Upland Forest / Woodland	35.43	35.45	89.5
Agriculture	35.45	35.46	101.6
Upland Open Land	35.46	35.47	22.1
Upland Forest / Woodland	35.47	35.47	4.7
Upland Open Land	35.47	35.48	66.5
Upland Forest / Woodland	35.48	35.62	742.2
Agriculture	35.62	35.73	542.0
Upland Forest / Woodland	35.73	35.74	71.7
Upland Open Land	35.74	35.75	80.9
Upland Forest / Woodland	35.75	35.87	596.5
Upland Open Land	35.87	35.91	213.4
Upland Forest / Woodland	35.91	35.98	390.0
Open Water	35.98	35.98	9.9
Upland Forest / Woodland	35.98	36.14	805.6
Upland Open Land	36.14	36.14	29.1
Upland Forest / Woodland	36.14	36.24	539.0
Upland Open Land	36.24	36.25	16.1
Agriculture	36.25	36.28	163.9
Commercial/Industrial	36.28	36.28	34.3
Agriculture	36.28	36.51	1,216.1
Upland Open Land	36.51	36.61	482.7
Commercial/Industrial	36.61	36.61	24.9
Upland Forest / Woodland	36.61	36.80	1,016.4

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Agriculture	36.80	36.86	318.1
Upland Forest / Woodland	36.86	36.96	512.9
Upland Open Land	36.96	36.99	181.8
Upland Forest / Woodland	36.99	37.01	90.2
Wetland	37.01	37.01	7.6
Upland Forest / Woodland	37.01	37.04	133.2
Upland Open Land	37.04	37.11	402.2
Upland Forest / Woodland	37.11	37.26	769.0
Wetland	37.26	37.26	8.3
Upland Forest / Woodland	37.26	37.43	888.3
Upland Open Land	37.43	37.45	117.3
Upland Forest / Woodland	37.45	37.52	364.7
Upland Open Land	37.52	37.57	281.9
Upland Forest / Woodland	37.57	37.59	75.6
Upland Open Land	37.59	37.72	706.1
Upland Forest / Woodland	37.72	37.74	91.7
Open Water	37.74	37.74	12.1
Upland Forest / Woodland	37.74	37.81	335.7
Upland Open Land	37.81	37.82	75.8
Upland Forest / Woodland	37.82	38.05	1,224.5
Upland Open Land	38.05	38.18	704.9
Upland Forest / Woodland	38.18	38.19	18.6
Open Water	38.19	38.19	20.5
Upland Forest / Woodland	38.19	38.23	218.1
Upland Open Land	38.23	38.27	225.8
Upland Forest / Woodland	38.27	38.44	893.7
Wetland	38.44	38.47	129.7
Upland Forest / Woodland	38.47	38.51	224.4
Wetland	38.51	38.54	137.6
Upland Forest / Woodland	38.54	38.61	381.2
Upland Open Land	38.61	38.62	36.7
Wetland	38.62	38.64	109.5
Upland Open Land	38.64	38.65	90.6
Wetland	38.65	38.66	16.3
Upland Open Land	38.66	38.67	91.0
Wetland	38.67	38.68	28.7
Upland Open Land	38.68	38.71	150.4

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Wetland	38.71	38.71	16.1
Upland Open Land	38.71	38.74	129.4
Upland Forest / Woodland	38.74	38.74	47.3
Open Water	38.74	38.76	53.1
Upland Forest / Woodland	38.76	38.81	297.0
Upland Open Land	38.81	38.82	21.5
Commercial/Industrial	38.82	38.82	23.0
Upland Open Land	38.82	38.83	50.8
Upland Forest / Woodland	38.83	38.93	513.4
Upland Open Land	38.93	38.94	50.1
Upland Forest / Woodland	38.94	39.33	2,081.4
Agriculture	39.33	39.36	162.4
Upland Forest / Woodland	39.36	39.40	190.0
Upland Open Land	39.40	39.45	278.1
Upland Forest / Woodland	39.45	39.51	336.1
Upland Open Land	39.51	39.55	207.4
Upland Forest / Woodland	39.55	39.58	123.9
Upland Open Land	39.58	39.58	7.0
Upland Forest / Woodland	39.58	39.62	215.9
Upland Open Land	39.62	39.62	0.6
Upland Forest / Woodland	39.62	39.65	144.1
Wetland	39.65	39.66	56.0
Upland Forest / Woodland	39.66	39.67	80.7
Upland Open Land	39.67	39.68	31.5
Commercial/Industrial	39.68	39.68	27.5
Upland Forest / Woodland	39.68	39.70	71.9
Commercial/Industrial	39.70	39.71	59.2
Upland Open Land	39.71	39.74	176.9
Upland Forest / Woodland	39.74	40.11	1,971.9
Upland Open Land	40.11	40.15	166.3
Upland Forest / Woodland	40.15	40.16	73.4
Open Water	40.16	40.17	26.9
Upland Forest / Woodland	40.17	40.29 RR	674.1
Upland Open Land	40.29 RR	40.31 RR	65.0
Upland Forest / Woodland	40.31 RR	40.36 RR	286.8
Upland Open Land	40.36 RR	40.36 RR	13.5
Commercial/Industrial	40.36 RR	40.37 RR	18.9

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	40.37 RR	40.37 RR	47.3
Upland Forest / Woodland	40.37 RR	40.38 RR	35.5
Upland Open Land	40.38 RR	40.39 RR	45.6
Upland Forest / Woodland	40.39 RR	40.41 RR	129.1
Agriculture	40.41 RR	40.46 RR	244.9
Upland Forest / Woodland	40.46 RR	40.46	295.4
Agriculture	40.46	40.49	184.8
Upland Forest / Woodland	40.49	40.91	2,195.6
Upland Open Land	40.91	40.91	31.9
Upland Forest / Woodland	40.91	41.11	1,050.2
Wetland	41.11	41.12	33.5
Upland Forest / Woodland	41.12	41.12	9.9
Wetland	41.12	41.13	50.1
Upland Forest / Woodland	41.13	41.15	101.5
Open Water	41.15	41.16	39.1
Upland Forest / Woodland	41.16	41.41	1,338.8
Upland Open Land	41.41	41.42	30.7
Upland Forest / Woodland	41.42	41.58	884.5
Upland Open Land	41.58	41.59	51.8
Commercial/Industrial	41.59	41.62	154.5
Upland Open Land	41.62	41.63	12.6
Upland Forest / Woodland	41.63	41.66	162.8
Wetland	41.66	41.66	5.8
Upland Forest / Woodland	41.66	41.72	325.2
Upland Open Land	41.72	41.79	392.6
Upland Forest / Woodland	41.79	41.80	43.3
Open Water	41.80	41.81	19.5
Upland Forest / Woodland	41.81	41.91	554.5
Upland Open Land	41.91	42.18	1,433.7
Commercial/Industrial	42.18	42.19	40.3
Upland Open Land	42.19	42.20	24.4
Upland Forest / Woodland	42.20	42.43	1,233.5
Upland Open Land	42.43	42.44	39.0
Upland Forest / Woodland	42.44	42.60	846.6
Upland Open Land	42.60	42.63	166.1
Upland Forest / Woodland	42.63	42.65	119.8
Upland Open Land	42.65	42.66	57.6

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	42.66	42.72	300.4
Upland Open Land	42.72	42.74	110.2
Upland Forest / Woodland	42.74	42.90	873.8
Upland Open Land	42.90	42.91	33.7
Upland Forest / Woodland	42.91	42.92	57.5
Upland Open Land	42.92	42.92	9.5
Upland Forest / Woodland	42.92	43.07	788.2
Open Water	43.07	43.08	12.0
Upland Forest / Woodland	43.08	43.15	376.3
Upland Open Land	43.15	43.15	36.4
Commercial/Industrial	43.15	43.16	24.1
Upland Open Land	43.16	43.16	23.7
Upland Forest / Woodland	43.16	43.26	523.1
Open Water	43.26	43.27	25.9
Upland Forest / Woodland	43.27	43.31	248.4
Upland Open Land	43.31	43.32	20.3
Upland Forest / Woodland	43.32	43.40	410.1
Upland Open Land	43.40	43.42	114.4
Commercial/Industrial	43.42	43.42	24.9
Upland Open Land	43.42	43.48	295.2
Upland Forest / Woodland	43.48	43.49	46.9
Upland Open Land	43.49	43.55	338.3
Upland Forest / Woodland	43.55	43.55	3.7
Upland Open Land	43.55	43.57	113.4
Upland Forest / Woodland	43.57	43.57	5.3
Upland Open Land	43.57	43.60	155.8
Upland Forest / Woodland	43.60	43.61	54.4
Upland Open Land	43.61	43.62	9.7
Upland Forest / Woodland	43.62	43.71	476.9
Open Water	43.71	43.71	44.6
Upland Forest / Woodland	43.71	43.72	36.7
Open Water	43.72	43.72	8.9
Upland Forest / Woodland	43.72	43.95	1,187.1
Upland Open Land	43.95	43.95	19.6
Upland Forest / Woodland	43.95	43.96	31.4
Upland Open Land	43.96	43.96	7.6
Upland Forest / Woodland	43.96	44.02	305.5

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	44.02	44.02	19.3
Upland Forest / Woodland	44.02	44.03	55.8
Upland Open Land	44.03	44.04	34.7
Upland Forest / Woodland	44.04	44.10	347.5
Upland Open Land	44.10	44.11	37.1
Upland Forest / Woodland	44.11	44.14	154.8
Upland Open Land	44.14	44.17	182.6
Upland Forest / Woodland	44.17	44.18	44.2
Upland Open Land	44.18	44.22	201.4
Upland Forest / Woodland	44.22	44.27	278.2
Residential	44.27	44.31	206.7
Upland Forest / Woodland	44.31	44.35	192.1
Upland Open Land	44.35	44.36	70.7
Upland Forest / Woodland	44.36	44.46	528.4
Agriculture	44.46	44.48	103.5
Upland Forest / Woodland	44.48	44.58	493.1
Upland Open Land	44.58	44.68	528.6
Upland Forest / Woodland	44.68	44.77	507.9
Upland Open Land	44.77	44.78	47.5
Agriculture	44.78	44.90	615.8
Commercial/Industrial	44.90	44.90	21.7
Agriculture	44.90	45.31	2,144.9
Upland Forest / Woodland	45.31	45.38	404.6
Upland Open Land	45.38	45.39	22.3
Silviculture	45.39	45.44	288.0
Upland Open Land	45.44	45.45	29.2
Silviculture	45.45	45.54	507.9
Upland Open Land	45.54	45.56	92.9
Upland Forest / Woodland	45.56	45.70	744.7
Open Water	45.70	45.71	22.9
Upland Forest / Woodland	45.71	45.71	27.5
Upland Open Land	45.71	45.79	408.1
Upland Forest / Woodland	45.79	45.80	38.3
Upland Open Land	45.80	45.81	78.4
Upland Forest / Woodland	45.81	45.89	428.2
Upland Open Land	45.89	46 RR	580.2
Upland Forest / Woodland	46.00 RR	46.14 RR	725.1

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	46.14 RR	46.15 RR	58.6
Upland Forest / Woodland	46.15 RR	46.25 RR	542.6
Agriculture	46.25 RR	46.28 RR	149.8
Upland Open Land	46.28 RR	46.28 RR	12.1
Upland Forest / Woodland	46.28 RR	46.29 RR	37.7
Agriculture	46.29 RR	46.30 RR	49.7
Upland Forest / Woodland	46.30 RR	46.47	885.6
Upland Open Land	46.47	46.54	375.0
Agriculture	46.54	46.59	239.0
Upland Open Land	46.59	46.69	504.9
Agriculture	46.69	46.69	32.5
Upland Open Land	46.69	46.71	76.8
Upland Forest / Woodland	46.71	46.74	166.1
Agriculture	46.74	46.80	322.6
Upland Forest / Woodland	46.80	46.98	939.7
Open Water	46.98	46.98	18.8
Upland Forest / Woodland	46.98	47.00	125.6
Wetland	47.00	47.01	46.6
Upland Forest / Woodland	47.01	47.02	32.6
Upland Open Land	47.02	47.15	672.8
Upland Forest / Woodland	47.15	47.15	40.6
Upland Open Land	47.15	47.23	420.5
Upland Forest / Woodland	47.23	47.73	2,635.1
Open Water	47.73	47.74	19.1
Upland Forest / Woodland	47.74	48.12	2,048.3
Agriculture	48.12	48.30	914.2
Upland Forest / Woodland	48.30	48.35	257.3
Agriculture	48.35	48.41	343.2
Commercial/Industrial	48.41	48.42	28.0
Agriculture	48.42	48.46	219.0
Upland Forest / Woodland	48.46	48.47	72.1
Wetland	48.47	48.48	24.4
Upland Forest / Woodland	48.48	48.52	205.6
Upland Open Land	48.52	48.52	32.3
Agriculture	48.52	48.55	168.4
Upland Open Land	48.55	48.56	10.5
Upland Forest / Woodland	48.56	48.61	288.9

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Wetland	48.61	48.62	39.5
Upland Forest / Woodland	48.62	48.66	204.8
Wetland	48.66	48.66	0.9
Upland Forest / Woodland	48.66	48.70	231.0
Upland Open Land	48.70	48.72	85.9
Commercial/Industrial	48.72	49.01	1,548.0
Upland Open Land	49.01	49.06	272.9
Upland Forest / Woodland	49.06	49.10	202.7
Upland Open Land	49.10	49.10	20.2
Commercial/Industrial	49.10	49.11	39.2
Upland Open Land	49.11	49.24	686.0
Upland Forest / Woodland	49.24	49.39	771.0
Upland Open Land	49.39	49.52	703.1
Commercial/Industrial	49.52	49.53	33.6
Upland Forest / Woodland	49.53	49.65	648.9
Upland Open Land	49.65	49.71 RR	308.8
Upland Forest / Woodland	49.71 RR	49.79 RR	453.0
Upland Open Land	49.79 RR	49.80 RR	58.3
Upland Forest / Woodland	49.80 RR	49.90 RR	524.3
Wetland	49.90 RR	49.91 RR	38.7
Upland Forest / Woodland	49.91 RR	50.01 RR	516.8
Upland Open Land	50.01 RR	50.01 RR	1.0
Upland Forest / Woodland	50.01 RR	50.02 RR	74.5
Upland Open Land	50.02 RR	50.05 RR	126.7
Upland Forest / Woodland	50.05 RR	50.33 RR	1,469.8
Upland Open Land	50.33 RR	50.33 RR	26.3
Upland Forest / Woodland	50.33 RR	50.52 RR	1,018.0
Upland Open Land	50.52 RR	50.60 RR	407.1
Upland Forest / Woodland	50.60 RR	50.74 RR	750.6
Upland Open Land	50.74 RR	50.75 RR	22.5
Upland Forest / Woodland	50.75 RR	50.77 RR	115.9
Open Water	50.77 RR	50.78 RR	43.5
Upland Forest / Woodland	50.78 RR	50.8 RR	113.4
Open Water	50.8 RR	50.81 RR	35.6
Upland Forest / Woodland	50.81 RR	50.81 RR	3.2
Open Water	50.81 RR	50.82 RR	49.7
Upland Forest / Woodland	50.82 RR	50.83 RR	73.6

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Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	50.83 RR	50.97 RR	719.1
Upland Forest / Woodland	50.97 RR	51.16 RR	1,021.2
Agriculture	51.16 RR	51.18 RR	92.2
Upland Forest / Woodland	51.18 RR	51.23 RR	265.1
Agriculture	51.23 RR	51.24 RR	96.5
Upland Open Land	51.24 RR	51.26 RR	92.2
Agriculture	51.26 RR	51.34 RR	418.5
Upland Open Land	51.34 RR	51.35 RR	60.8
Wetland	51.35 RR	51.36 RR	18.9
Upland Open Land	51.36 RR	51.36 RR	24.6
Wetland	51.36 RR	51.39 RR	134.9
Upland Forest / Woodland	51.39 RR	51.46 RR	387.9
Agriculture	51.46 RR	51.63 RR	884.3
Upland Open Land	51.63 RR	51.63 RR	20.3
Commercial/Industrial	51.63 RR	51.64 RR	20.8
Upland Open Land	51.64 RR	51.64 RR	17.4
Agriculture	51.64 RR	51.83	1,145.7
Upland Open Land	51.83	51.85	114.0
Agriculture	51.85	51.96	584.4
Upland Open Land	51.96	51.98	88.8
Commercial/Industrial	51.98	51.98	17.6
Upland Open Land	51.98	52.04 RR	330.2
Upland Forest / Woodland	52.04 RR	52.19 RR	788.8
Upland Open Land	52.19 RR	52.2 RR	24.9
Upland Forest / Woodland	52.2 RR	52.17	90.9
Upland Open Land	52.17	52.19	116.2
Upland Forest / Woodland	52.19	52.24	261.2
Upland Open Land	52.24	52.26	103.1
Upland Forest / Woodland	52.26	52.27	66.4
Upland Open Land	52.27	52.30	153.9
Upland Forest / Woodland	52.30	52.30	20.4
Upland Open Land	52.30	52.34 RR	211.5
Upland Forest / Woodland	52.34 RR	52.38 RR	191.0
Open Water	52.38 RR	52.38 RR	9.1
Upland Forest / Woodland	52.38 RR	52.42 RR	190.9
Agriculture	52.42 RR	52.47 RR	255.6
Upland Forest / Woodland	52.47 RR	52.53	427.6

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	52.53	52.54	27.9
Upland Forest / Woodland	52.54	52.60	340.8
Upland Open Land	52.60	52.62	70.4
Commercial/Industrial	52.62	52.62	11.9
Upland Open Land	52.62	52.62	29.9
Upland Forest / Woodland	52.62	52.73	554.2
Agriculture	52.73	52.73	28.2
Upland Forest / Woodland	52.73	53.05	1,646.3
Upland Open Land	53.05	53.05	8.5
Commercial/Industrial	53.05	53.05	29.5
Upland Forest / Woodland	53.05	53.12	359.9
Agriculture	53.12	53.17	257.7
Upland Forest / Woodland	53.17	53.25	397.1
Agriculture	53.25	53.28	177.5
Upland Forest / Woodland	53.28	53.32	216.4
Upland Open Land	53.32	53.33	48.7
Commercial/Industrial	53.33	53.34	34.4
Upland Open Land	53.34	53.34	21.6
Silviculture	53.34	53.35	43.7
Wetland	53.35	53.35	26.1
Silviculture	53.35	53.47	635.3
Residential	53.47	53.48	14.2
Silviculture	53.48	53.62	762.7
Residential	53.62	53.62	11.8
Silviculture	53.62	53.64	112.7
Upland Open Land	53.64	53.65	4.4
Wetland	53.65	53.65	9.0
Upland Open Land	53.65	53.66	53.3
Upland Forest / Woodland	53.66	53.76	549.0
Upland Open Land	53.76	53.77	25.6
Upland Forest / Woodland	53.77	53.81	206.6
Agriculture	53.81	53.83	152.9
Upland Open Land	53.83	53.88	262.0
Upland Forest / Woodland	53.88	53.90	80.5
Upland Open Land	53.90	53.96	340.6
Upland Forest / Woodland	53.96	53.99	161.4
Upland Open Land	53.99	54.00	43.7

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Agriculture	54.00	54.09	486.6
Upland Open Land	54.09	54.10	21.6
Commercial/Industrial	54.10	54.10	20.3
Upland Open Land	54.10	54.11	17.8
Agriculture	54.11	54.21	528.2
Upland Forest / Woodland	54.21	54.23	137.5
Agriculture	54.23	54.30	350.7
Upland Forest / Woodland	54.30	54.31	66.8
Wetland	54.31	54.33	102.9
Upland Forest / Woodland	54.33	54.35	116.8
Agriculture	54.35	54.43	392.0
Upland Forest / Woodland	54.43	54.60	925.6
Upland Open Land	54.60	54.61	20.2
Upland Forest / Woodland	54.61	54.64	153.8
Agriculture	54.64	54.80	848.9
Upland Open Land	54.80	54.88	427.8
Upland Forest / Woodland	54.88	54.89	91.5
Upland Open Land	54.89	54.92	125.5
Upland Forest / Woodland	54.92	55.01	500.9
Agriculture	55.01	55.06	241.9
Upland Open Land	55.06	55.06	25.4
Commercial/Industrial	55.06	55.07	25.7
Upland Open Land	55.07	55.07	15.5
Agriculture	55.07	55.27 RR	1,029.5
Upland Open Land	55.27 RR	55.27 RR	41.6
Upland Forest / Woodland	55.27 RR	55.64 RR	1,924.5
Agriculture	55.64 RR	55.50	441.1
Upland Forest / Woodland	55.50	55.53	171.1
Wetland	55.53	55.54	39.1
Upland Open Land	55.54	55.59	271.3
Upland Forest / Woodland	55.59	55.66	355.6
Agriculture	55.66	55.66	13.7
Upland Forest / Woodland	55.66	55.67	54.3
Agriculture	55.67	55.68	21.0
Upland Forest / Woodland	55.68	55.73	286.7
Upland Open Land	55.73	55.74	53.3
Commercial/Industrial	55.74	55.75	48.2

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Agriculture	55.75	55.78	148.8
Upland Forest / Woodland	55.78	55.91	696.3
Agriculture	55.91	56.28	1,953.7
Upland Open Land	56.28	56.30	96.2
Upland Forest / Woodland	56.30	56.37	375.6
Upland Open Land	56.37	56.38	28.0
Commercial/Industrial	56.38	56.38	31.4
Upland Open Land	56.38	56.39	24.4
Upland Forest / Woodland	56.39	56.42 RR	174.3
Wetland	56.42 RR	56.43 RR	78.3
Upland Forest / Woodland	56.43 RR	56.44 RR	3.2
Wetland	56.44 RR	56.44 RR	11.9
Upland Forest / Woodland	56.44 RR	56.47 RR	158.9
Commercial/Industrial	56.47 RR	56.47 RR	13.6
Upland Forest / Woodland	56.47 RR	56.49	154.2
Open Water	56.49	56.50	31.4
Upland Forest / Woodland	56.50	56.51	51.3
Wetland	56.51	56.52 RR	62.9
Upland Forest / Woodland	56.52 RR	56.57 RR	267.8
Wetland	56.57 RR	56.59 RR	76.8
Upland Forest / Woodland	56.59 RR	56.64 RR	263.0
Wetland	56.64 RR	56.66 RR	127.8
Upland Forest / Woodland	56.66 RR	56.70 RR	205.4
Open Water	56.70 RR	56.71 RR	67.9
Upland Forest / Woodland	56.71 RR	56.73 RR	116.3
Upland Open Land	56.73 RR	56.74 RR	13.3
Agriculture	56.74 RR	56.78	518.3
Upland Open Land	56.78	56.81	166.5
Upland Forest / Woodland	56.81	56.85	199.5
Wetland	56.85	56.85	17.0
Upland Forest / Woodland	56.85	56.93	418.1
Agriculture	56.93	56.97	185.0
Upland Forest / Woodland	56.97	57.03	338.2
Upland Open Land	57.03	57.03	10.7
Upland Forest / Woodland	57.03	57.06	131.4
Wetland	57.06	57.07	56.0
Upland Forest / Woodland	57.07	57.16	486.8

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Wetland	57.16	57.19	145.8
Upland Forest / Woodland	57.19	57.26	385.1
Upland Open Land	57.26	57.27	22.8
Residential	57.27	57.28	58.0
Upland Open Land	57.28	57.28	38.2
Residential	57.28	57.29	41.7
Upland Open Land	57.29	57.34	231.7
Upland Forest / Woodland	57.34	57.34	47.7
Upland Open Land	57.34	57.46	631.1
Commercial/Industrial	57.46	57.47	50.2
Upland Open Land	57.47	57.52	236.0
Upland Forest / Woodland	57.52	57.54	134.9
Wetland	57.54	57.56	84.8
Upland Forest / Woodland	57.56	57.56	2.5
Wetland	57.56	57.57	66.8
Upland Forest / Woodland	57.57	57.58	26.1
Agriculture	57.58	57.62	244.4
Upland Forest / Woodland	57.62	57.76	707.4
Upland Open Land	57.76	57.78	135.6
Residential	57.78	57.81	163.3
Commercial/Industrial	57.81	57.82	43.6
Upland Open Land	57.82	57.85	133.6
Wetland	57.85	57.85	13.1
Upland Open Land	57.85	57.85	2.0
Commercial/Industrial	57.85	57.86	33.7
Upland Open Land	57.86	57.86	34.5
Wetland	57.86	57.87	20.2
Upland Forest / Woodland	57.87	57.89	93.4
Upland Open Land	57.89	58.01	675.9
Wetland	58.01	58.02	52.2
Upland Open Land	58.02	58.34	1,677.0
Upland Forest / Woodland	58.34	58.40	320.1
Upland Open Land	58.40	58.44	180.3
Upland Forest / Woodland	58.44	58.46	145.2
Agriculture	58.46	58.58 RR	598.7
Upland Forest / Woodland	58.58 RR	58.6 RR	117.1
Agriculture	58.6 RR	58.62 RR	130.7

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	58.62 RR	58.65 RR	164.8
Open Water	58.65 RR	58.66 RR	30.6
Upland Forest / Woodland	58.66 RR	58.77	825.5
Upland Open Land	58.77	58.82	245.0
Upland Forest / Woodland	58.82	59.21 RR	2,089.4
Upland Open Land	59.21 RR	59.34 RR	659.2
Commercial/Industrial	59.34 RR	59.34 RR	28.2
Residential	59.34 RR	59.39 RR	233.5
Upland Open Land	59.39 RR	59.63	1,177.3
Upland Forest / Woodland	59.63	59.65	112.8
Upland Open Land	59.65	59.67	86.1
Upland Forest / Woodland	59.67	59.72	282.7
Upland Open Land	59.72	59.73	39.0
Upland Forest / Woodland	59.73	59.76	135.9
Upland Open Land	59.76	59.80	227.8
Upland Forest / Woodland	59.80	59.84	200.4
Upland Open Land	59.84	59.86	141.1
Upland Forest / Woodland	59.86	59.89	130.2
Upland Open Land	59.89	59.99	525.9
Commercial/Industrial	59.99	59.99	19.7
Upland Open Land	59.99	60.25	1,376.7
Commercial/Industrial	60.25	60.26	45.7
Upland Open Land	60.26	60.46	1,041.5
Upland Forest / Woodland	60.46	60.73 RR	1,439.1
Open Water	60.73 RR	60.73 RR	15.7
Wetland	60.73 RR	60.76 RR	116.1
Upland Forest / Woodland	60.76 RR	60.79 RR	189.6
Upland Open Land	60.79 RR	60.82 RR	165.1
Upland Forest / Woodland	60.82 RR	60.83 RR	41.7
Wetland	60.83 RR	60.84 RR	33.0
Upland Forest / Woodland	60.84 RR	60.86 RR	91.8
Upland Open Land	60.86 RR	60.93	558.5
Agriculture	60.93	61.15	1,167.3
Upland Open Land	61.15	61.15	8.5
Upland Forest / Woodland	61.15	61.36	1,110.1
Upland Open Land	61.36	61.37	26.3
Commercial/Industrial	61.37	61.37	21.1

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	61.37	61.38	40.0
Upland Forest / Woodland	61.38	61.40	105.5
Upland Open Land	61.40	61.43	169.8
Agriculture	61.43	61.59	827.4
Upland Open Land	61.59	61.61	95.4
Agriculture	61.61	61.64	173.3
Upland Open Land	61.64	61.69	234.8
Upland Forest / Woodland	61.69	61.83	770.6
Upland Open Land	61.83	61.91	423.0
Agriculture	61.91	62.18 RR	1,414.6
Upland Open Land	62.18 RR	62.34 RR	836.3
Upland Forest / Woodland	62.34 RR	62.35 RR	53.4
Upland Open Land	62.35 RR	62.48 RR	705.7
Upland Forest / Woodland	62.48 RR	62.55 RR	370.6
Open Water	62.55 RR	62.55 RR	13.0
Upland Forest / Woodland	62.55 RR	62.52	279.1
Wetland	62.52	62.52	8.4
Upland Forest / Woodland	62.52	62.54	86.4
Upland Open Land	62.54	62.66	638.8
Wetland	62.66	62.67	63.7
Upland Open Land	62.67	62.82	748.0
Commercial/Industrial	62.82	62.82	23.8
Upland Open Land	62.82	62.89	371.1
Upland Forest / Woodland	62.89	62.99 RR	512.9
Wetland	62.99 RR	62.99 RR	23.9
Upland Forest / Woodland	62.99 RR	63.03 RR	182.3
Upland Open Land	63.03 RR	63.04 RR	48.2
Upland Forest / Woodland	63.04 RR	63.05 RR	71.0
Upland Open Land	63.05 RR	63.08 RR	141.6
Commercial/Industrial	63.08 RR	63.08 RR	31.6
Upland Open Land	63.08 RR	63.09 RR	39.2
Upland Forest / Woodland	63.09 RR	63.15 RR	309.3
Upland Open Land	63.15 RR	63.17 RR	134.5
Upland Forest / Woodland	63.17 RR	63.42 RR	1,287.1
Open Water	63.42 RR	63.42 RR	17.6
Upland Forest / Woodland	63.42 RR	63.53	1,336.1
Upland Open Land	63.53	63.53	28.9

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	63.53	63.59	304.4
Open Water	63.59	63.65	296.2
Upland Forest / Woodland	63.65	63.84	1,041.3
Wetland	63.84	63.85	63.0
Upland Forest / Woodland	63.85	63.93 RR	386.2
Silviculture	63.93 RR	64.03 RR	540.2
Upland Forest / Woodland	64.03 RR	64.05 RR	102.6
Open Water	64.05 RR	64.06 RR	33.7
Wetland	64.06 RR	64.06 RR	49.3
Upland Forest / Woodland	64.06 RR	64.08 RR	68.1
Upland Open Land	64.08 RR	64.09 RR	50.5
Upland Forest / Woodland	64.09 RR	64.11 RR	104.6
Upland Open Land	64.11 RR	64.34	1,324.5
Commercial/Industrial	64.34	64.34	11.5
Upland Open Land	64.34	64.41	368.7
Upland Forest / Woodland	64.41	64.47	328.5
Open Water	64.47	64.48	13.2
Upland Forest / Woodland	64.48	64.63	790.2
Residential	64.63	64.64	73.5
Upland Forest / Woodland	64.64	64.78	755.9
Upland Open Land	64.78	64.79	14.5
Commercial/Industrial	64.79	64.79	22.8
Upland Open Land	64.79	64.99 RR	1,029.3
Wetland	64.99 RR	65.00 RR	69.3
Upland Open Land	65.00 RR	65.00 RR	0.6
Upland Forest / Woodland	65.00 RR	65.01 RR	42.2
Upland Open Land	65.01 RR	65.09 RR	456.5
Upland Forest / Woodland	65.09 RR	65.13 RR	182.3
Upland Open Land	65.13 RR	65.17 RR	210.2
Upland Forest / Woodland	65.17 RR	65.17 RR	30.5
Wetland	65.17 RR	65.17 RR	5.5
Upland Forest / Woodland	65.17 RR	65.19 RR	103.8
Upland Open Land	65.19 RR	65.34 RR	748.5
Commercial/Industrial	65.34 RR	65.34 RR	21.2
Upland Open Land	65.34 RR	65.35 RR	43.4
Agriculture	65.35 RR	65.39 RR	209.7
Upland Open Land	65.39 RR	65.4 RR	42.5

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Agriculture	65.4 RR	65.56 RR	854.5
Upland Forest / Woodland	65.56 RR	65.57	522.8
Upland Open Land	65.57	65.57	37.6
Upland Forest / Woodland	65.57	65.76	982.1
Upland Open Land	65.76	65.78	98.9
Agriculture	65.78	65.82	246.6
Upland Open Land	65.82	65.83	19.3
Upland Forest / Woodland	65.83	65.89	350.6
Upland Open Land	65.89	65.96 RR	349.5
Upland Forest / Woodland	65.96 RR	65.97 RR	70.6
Upland Open Land	65.97 RR	66.05 RR	410.9
Agriculture	66.05 RR	66.12 RR	356.1
Commercial/Industrial	66.12 RR	66.12 RR	19.6
Upland Open Land	66.12 RR	66.13 RR	16.3
Agriculture	66.13 RR	66.25 RR	636.9
Upland Forest / Woodland	66.25 RR	66.38 RR	688.5
Commercial/Industrial	66.38 RR	66.38 RR	22.2
Upland Open Land	66.38 RR	66.43 RR	266.4
Residential	66.43 RR	66.44 RR	66.5
Upland Open Land	66.44 RR	66.47 RR	147.3
Upland Forest / Woodland	66.47 RR	66.55 RR	430.9
Upland Open Land	66.55 RR	66.63 RR	410.7
Wetland	66.63 RR	66.64 RR	34.4
Upland Open Land	66.64 RR	66.7 RR	332.8
Upland Forest / Woodland	66.7 RR	66.79 RR	480.1
Upland Open Land	66.79 RR	66.87 RR	438.1
Upland Forest / Woodland	66.87 RR	66.96 RR	428.7
Upland Open Land	66.96 RR	67.03 RR	376.0
Commercial/Industrial	67.03 RR	67.07 RR	212.9
Residential	67.07 RR	67.07 RR	37.9
Upland Open Land	67.07 RR	67.16 RR	470.2
Commercial/Industrial	67.16 RR	67.17 RR	16.3
Upland Open Land	67.17 RR	67.24 RR	381.0
Upland Forest / Woodland	67.24 RR	67.26 RR	101.4
Upland Open Land	67.26 RR	67.27 RR	59.8
Upland Forest / Woodland	67.27 RR	67.41 RR	720.2
Upland Open Land	67.41 RR	67.59 RR	966.8

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	67.59 RR	67.60	864.7
Open Water	67.60	67.60	24.8
Upland Open Land	67.60	67.73	675.4
Upland Forest / Woodland	67.73	67.95	1,149.4
Upland Open Land	67.95	68.07	618.7
Upland Forest / Woodland	68.07	68.10	200.6
Open Water	68.10	68.11	8.4
Upland Forest / Woodland	68.11	68.22	608.1
Residential	68.22	68.22	16.7
Upland Open Land	68.22	68.25	114.0
Upland Forest / Woodland	68.25	68.36	602.7
Wetland	68.36	68.36	15.7
Upland Forest / Woodland	68.36	68.41	247.4
Open Water	68.41	68.41	2.8
Upland Forest / Woodland	68.41	68.49	395.9
Upland Open Land	68.49	68.50	100.1
Upland Forest / Woodland	68.50	68.58	400.1
Upland Open Land	68.58	68.58	0.6
Upland Forest / Woodland	68.58	68.58	24.1
Upland Open Land	68.58	68.59	26.2
Upland Forest / Woodland	68.59	68.60	76.2
Upland Open Land	68.60	68.62	79.6
Upland Forest / Woodland	68.62	68.62	9.4
Upland Open Land	68.62	68.63	21.1
Upland Forest / Woodland	68.63	68.65	124.0
Upland Open Land	68.65	68.65	10.9
Commercial/Industrial	68.65	68.66	28.4
Upland Open Land	68.66	68.66	34.4
Upland Forest / Woodland	68.66	68.79	688.5
Open Water	68.79	68.80	12.6
Upland Forest / Woodland	68.80	68.82	125.5
Upland Open Land	68.82	68.84	107.3
Upland Forest / Woodland	68.84	68.95	572.3
Upland Open Land	68.95	69.02	402.5
Upland Forest / Woodland	69.02	69.03	22.8
Upland Open Land	69.03	69.03	23.9
Upland Forest / Woodland	69.03	69.03	11.4

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Commercial/Industrial	69.03	69.05	100.4
Upland Forest / Woodland	69.05	69.09	203.2
Upland Open Land	69.09	69.24	762.4
Upland Forest / Woodland	69.24	69.42	978.8
Residential	69.42	69.43	23.7
Upland Open Land	69.43	69.43	1.5
Upland Forest / Woodland	69.43	69.46	200.3
Upland Open Land	69.46	69.47	13.9
Upland Forest / Woodland	69.47	69.48	61.7
Open Water	69.48	69.48	8.0
Upland Forest / Woodland	69.48	69.57 RR	474.6
Upland Open Land	69.57 RR	69.59 RR	107.8
Upland Forest / Woodland	69.59 RR	69.6 RR	34.8
Upland Open Land	69.6 RR	69.61 RR	62.1
Residential	69.61 RR	69.63 RR	95.5
Commercial/Industrial	69.63 RR	69.64 RR	51.4
Residential	69.64 RR	69.65 RR	48.3
Upland Open Land	69.65 RR	69.69 RR	220.2
Upland Forest / Woodland	69.69 RR	69.69 RR	34.5
Upland Open Land	69.69 RR	69.72 RR	157.6
Commercial/Industrial	69.72 RR	69.74 RR	76.0
Upland Open Land	69.74 RR	69.76 RR	99.1
Commercial/Industrial	69.76 RR	69.77 RR	51.0
Upland Open Land	69.77 RR	69.78 RR	87.5
Commercial/Industrial	69.78 RR	69.79 RR	56.9
Upland Open Land	69.79 RR	69.82 RR	122.2
Upland Forest / Woodland	69.82 RR	69.86 RR	236.6
Upland Open Land	69.86 RR	69.88 RR	86.1
Commercial/Industrial	69.88 RR	69.88 RR	19.4
Upland Open Land	69.88 RR	69.89 RR	32.6
Upland Forest / Woodland	69.89 RR	69.9 RR	32.9
Upland Open Land	69.9 RR	69.94 RR	219.8
Upland Forest / Woodland	69.94 RR	69.96 RR	144.8
Open Water	69.96 RR	69.97 RR	5.7
Upland Forest / Woodland	69.97 RR	70.27 RR	2,039.3
Open Water	70.27 RR	70.27 RR	11.4
Upland Forest / Woodland	70.27 RR	70.29 RR	86.0

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Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Open Land	70.29 RR	70.29 RR	25.3
Upland Forest / Woodland	70.29 RR	70.58	1,545.5
Upland Open Land	70.58	70.59	58.5
Upland Forest / Woodland	70.59	70.72	700.8
Open Water	70.72	70.73	24.2
Upland Forest / Woodland	70.73	70.76	170.3
Upland Open Land	70.76	70.76	9.7
Upland Forest / Woodland	70.76	70.81	237.3
Upland Open Land	70.81	70.83	136.4
Upland Forest / Woodland	70.83	70.92	467.7
Upland Open Land	70.92	70.93	38.3
Upland Forest / Woodland	70.93	71.03	559.2
Upland Open Land	71.03	71.04	59.7
Upland Forest / Woodland	71.04	71.07	117.7
Upland Open Land	71.07	71.07	32.0
Upland Forest / Woodland	71.07	71.09	108.5
Upland Open Land	71.09	71.10	24.0
Upland Forest / Woodland	71.10	71.31	1,124.3
Upland Open Land	71.31	71.31	17.0
Commercial/Industrial	71.31	71.35	171.8
Upland Open Land	71.35	71.35	24.5
Upland Forest / Woodland	71.35	71.35	14.0
Upland Open Land	71.35	71.48	640.9
Upland Forest / Woodland	71.48	71.49	56.1
Open Water	71.49	71.49	25.9
Upland Forest / Woodland	71.49	71.50	47.2
Upland Open Land	71.50	71.54	228.3
Upland Forest / Woodland	71.54	71.56	100.0
Upland Open Land	71.56	71.57	60.9
Upland Forest / Woodland	71.57	71.58	53.8
Upland Open Land	71.58	71.62	173.7
Upland Forest / Woodland	71.62	71.63	96.8
Upland Open Land	71.63	71.74	531.8
Upland Forest / Woodland	71.74	71.74	49.6
Wetland	71.74	71.75	43.9
Upland Forest / Woodland	71.75	71.93	930.8
Upland Open Land	71.93	71.95 RR	95.9

REVISED [Oct 2019] - Table 8-A

Land Use Crossed by Milepost for the Southgate Project Pipeline

Land Use	Entry Milepost	Exit Milepost	Length (feet)
Upland Forest / Woodland	71.95 RR	71.96 RR	74.5
Upland Open Land	71.96 RR	72.02 RR	312.7
Upland Forest / Woodland	72.02 RR	72.03	119.7
Upland Open Land	72.03	72.05	85.3
Upland Forest / Woodland	72.05	72.07	116.3
Upland Open Land	72.07	72.07	12.4
Upland Forest / Woodland	72.07	72.08	45.9
Upland Open Land	72.08	72.11	150.5
Upland Forest / Woodland	72.11	72.22	605.6
Upland Open Land	72.22	72.24	76.5
Upland Forest / Woodland	72.24	72.40	845.5
Upland Open Land	72.40	72.40	22.5
Upland Forest / Woodland	72.40	72.41	56.1
Upland Open Land	72.41	72.44	161.8
Upland Forest / Woodland	72.44	72.62	950.1
Upland Open Land	72.62	72.63	40.5
Upland Forest / Woodland	72.63	72.76 RR	683.5
Residential	72.76 RR	72.79 RR	172.4
Upland Forest / Woodland	72.79 RR	72.87 RR	390.1
Residential	72.87 RR	72.9 RR	176.5
Commercial/Industrial	72.9 RR	72.91 RR	80.5
Upland Open Land	72.91 RR	72.92 RR	36.9
Wetland	72.92 RR	72.93 RR	36.4
Upland Open Land	72.93 RR	72.93 RR	34.1
Wetland	72.93 RR	72.98 RR	221.2
Upland Open Land	72.98 RR	72.98 RR	41.2
Wetland	72.98 RR	72.99 RR	45.0
Upland Open Land	72.99 RR	73.17 RR	1,051.3

Note: Mileposts with an “RR” indicate locations where a re-route was incorporated into the pipeline alignment.

REVISED [Oct 2019] - Table 8-B

Roadways Crossed by the Southgate Project

Facility, State, County	Milepost	Road Name	Surface Type	Jurisdiction	Public or Private	Crossing Method
H-605 Pipeline						
Virginia						
Pittsylvania	N/A	N/A	N/A	N/A	N/A	N/A
H-650 Pipeline						
Virginia						
Pittsylvania	0.7	County Road 703 / Fairview N	Asphalt	County	Public	Bore
Pittsylvania	0.9	State Route 57 / Halifax Road	Asphalt	State	Public	Bore
Pittsylvania	2.9	County Road 694 / Davis Road	Asphalt	County	Public	Bore
Pittsylvania	3.0	County Road 703 / Fairview Road	Asphalt	County	Public	Bore
Pittsylvania	4.2	County Road 1437 / Woodlawn Academy Road	Asphalt	County	Public	Bore
Pittsylvania	4.3	County Road 1437 / Woodlawn Academy Road	Asphalt	County	Public	Bore
Pittsylvania	4.3	U.S. Highway 29	Asphalt	U.S.	Public	Bore
Pittsylvania	7.2	County Road 836 / White Oak Circle	Asphalt	County	Public	Bore
Pittsylvania	7.4	County Road 718 / Dry Fork Road	Asphalt	County	Public	Bore
Pittsylvania	8.1	County Road 1099 / Hylton Lane	Asphalt	County	Public	Bore
Pittsylvania	9.4	County Road 834 / Hopewell Road	Asphalt	County	Public	Bore
Pittsylvania	10.2	County Road 1071 / Tobacco Road	Gravel	County	Public	Open Cut
Pittsylvania	10.8	State Route 41 / Franklin Turnpike	Asphalt	State	Public	Bore
Pittsylvania	12.4	County Road 865 / Hutson Road	Asphalt	County	Public	Bore
Pittsylvania	13.4	County Road 866 / Sandy Creek Road	Asphalt	County	Public	Bore
Pittsylvania	14.9	County Road 750 / Whitmell School Road	Asphalt	County	Public	Bore
Pittsylvania	15.9	County Road 844 / Mount Cross Road	Asphalt	County	Public	Bore
Pittsylvania	16.5	County Road 868 / Silver Creek Road	Asphalt	County	Public	Bore
Pittsylvania	18.3	County Road 878 / Pine Lake Road	Asphalt	County	Public	Bore
Pittsylvania	19.0	County Road 876 / Cedar Spring Road	Asphalt	County	Public	Bore
Pittsylvania	19.3	County Road 869 / Stony Mill Road	Asphalt	County	Public	Bore
Pittsylvania	20.0	U.S. Highway 58 / Martinsville Highway	Asphalt	U.S.	Public	Bore
Pittsylvania	22.1	County Road 875 / Horseshoe Road	Asphalt	County	Public	Bore
Pittsylvania	23.7 RR	County Road 862 / Oak Hill Road	Asphalt	County	Public	Bore
North Carolina						
Rockingham	26.2	State Road 1745 / Buffalo Road	Asphalt	State	Public	Bore
Rockingham	26.6	U.S. Hwy 311 / Hwy 770	Asphalt	State	Public	Bore
Rockingham	30.5	State Hwy 700 / S Fieldcrest Road	Asphalt	State	Public	Bore
Rockingham	30.7	State Road 1951 / Quesinberry Road	Asphalt	State	Public	Bore
Rockingham	31.6	State Road 1951 / Quesinberry Road	Asphalt	State	Public	Bore

REVISED [Oct 2019] - Table 8-B

Roadways Crossed by the Southgate Project

Facility, State, County	Milepost	Road Name	Surface Type	Jurisdiction	Public or Private	Crossing Method
Rockingham	33.2	State Road 1945 / Moir Mill Road	Asphalt	State	Public	Bore
Rockingham	36.3	State Road 1980 / Mount Carmel Church Road	Asphalt	State	Public	Bore
Rockingham	36.6	State Road 1982 / Wolf Island Road	Asphalt	State	Public	Bore
Rockingham	38.8	State Road 1941 / Crutchfield Road	Asphalt	State	Public	Bore
Rockingham	39.7	U.S. Highway 29	Asphalt	U.S.	Public	Bore
Rockingham	40.4	State Road 2552 / Narrow Gauge Road	Asphalt	State	Public	Bore
Rockingham	41.6	U.S. Highway 29	Asphalt	U.S.	Public	Bore
Rockingham	42.2	U.S. Highway 158	Asphalt	U.S.	Public	Bore
Rockingham	43.2	State Road 2579 / Brooks Road	Asphalt	State	Public	Bore
Rockingham	43.4	State Road 2588 / Knowles Road	Asphalt	State	Public	Bore
Rockingham	44.9	State Road 2571 / Grooms Road	Asphalt	State	Public	Bore
Rockingham	48.4	State Road 150 / State Highway 150	Asphalt	State	Public	Bore
Rockingham	49.1	State Road 87 / State Highway 87	Asphalt	State	Public	Bore
Rockingham	49.5	State Road 2614 / High Rock Road	Asphalt	State	Public	Bore
Rockingham	51.6 RR	State Road 2619 / Kernodle Road	Asphalt	State	Public	Bore
Rockingham	52.0	State Road 2658 / Parkdale Road	Asphalt	State	Public	Bore
Rockingham	52.6	Tri County Drive	Gravel	Private	Private	Open Cut
Alamance	53.1	State Road 2903 / Troxler Mill Road	Asphalt	State	Public	Bore
Alamance	53.3	State Road 1577 / Lee Lewis Road	Asphalt	State	Public	Bore
Alamance	54.1	State Road 1576 / Jug House Road	Asphalt	State	Public	Bore
Alamance	55.1	State Road 1576 / Gilliam Church Road	Asphalt	State	Public	Bore
Alamance	55.8	State Highway 87	Asphalt	State	Public	Bore
Alamance	56.4	State Road 1571 / Altamahaw Race Track Road	Asphalt	State	Public	Bore
Alamance	56.5	State Road 1649 / Lonzie Foster Trail	Gravel	State	Public	Open Cut
Alamance	57.3	State Route 1591 / Hollyfield Road"	Gravel	State	Public	Open Cut
Alamance	57.5	State Road 1565 / Dodd Road	Asphalt	State	Public	Bore
Alamance	57.8	State Road 1002 / Altamahaw Union Ridge Rd	Asphalt	State	Public	Bore
Alamance	57.9	State Road 1561 / Hub Mill Road	Asphalt	State	Public	Bore
Alamance	59.3 RR	State Road 1595 / Danieley Water Wheel Road	Asphalt	State	Public	Bore
Alamance	60.0	State Road 1593 / Burch Bridge Road	Asphalt	State	Public	Bore
Alamance	60.3	State Road 1598 / Isley School Road	Asphalt	State	Public	Bore
Alamance	61.4	State Road 1601 / Huffines Drive	Asphalt	State	Public	Bore

REVISED [Oct 2019] - Table 8-B

Roadways Crossed by the Southgate Project

Facility, State, County	Milepost	Road Name	Surface Type	Jurisdiction	Public or Private	Crossing Method
Alamance	62.8	State Road 1001 / Union Ridge Road	Asphalt	State	Public	Bore
Alamance	63.1 RR	State Highway 62	Asphalt	State	Public	Bore
Alamance	64.8	State Route 1750 / Faucette Lane	Asphalt	State	Public	Bore
Alamance	65.3 RR	State Road 1729 / Deep Creek Church Road	Asphalt	State	Public	Bore
Alamance	66.1 RR	State Road 1735 / N. Fonville Rd	Asphalt	State	Public	Bore
Alamance	66.4 RR	State Road 1752 / Sandy Cross Road	Asphalt	State	Public	Bore
Alamance	68.2	Indian Village Trail	Gravel	County	Public	Open Cut
Alamance	68.7	State Road 1737 / Haw River Hopedale Road	Asphalt	State	Public	Bore
Alamance	69.0	U.S. Highway 70 / Haw River Bypass	Asphalt	U.S.	Public	Bore
Alamance	69.6 RR	State Highway 49 / W. Main Street	Asphalt	State	Public	Bore
Alamance	69.7 RR	State Road 1935 / Stone St	Asphalt	State	Public	Bore
Alamance	71.3	Interstate 40 / Interstate 85	Asphalt	U.S.	Public	Bore
Alamance	72.9 RR	State Highway 54 / E Harden Street	Asphalt	State	Public	Bore

Notes:
N/A = Not Applicable
Mileposts with an “RR” indicate locations where a re-route was incorporated into the pipeline alignment.

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Virginia								
Pittsylvania	0.0	1- Story House	Yes	North	22	2,563	RSS-H650-045	Stay within access road PA-PI-001C limits. Proposed barricade fence 100 linear feet from house.
Pittsylvania	0.1	House - 2 Story	No	South	27	911	N/A	Protect
Pittsylvania	0.1	Barn	No	South	42	1,037	N/A	Protect
Pittsylvania	2.3	Shed	No	East	50	1,278	N/A	Stay within access road TA-PI-005 limits.
Pittsylvania	2.3	Shed	No	East	7	1,720	N/A	Stay within access road TA-PI-005 limits.
Pittsylvania	2.3	Shed	No	East	35	1,828	N/A	Stay within access road TA-PI-005 limits.
Pittsylvania	2.3	Shed	No	East	4	1,871	N/A	Stay within access road TA-PI-005 limits.
Pittsylvania	2.3	Shed	No	East	0	1,821	N/A	Protect
Pittsylvania	2.3	Shed	No	East	20	1,967	N/A	Stay within access road TA-PI-005 limits.
Pittsylvania	2.3	Shed	No	East	0	2,012	N/A	Protect
Pittsylvania	4.5	1- Story House	Yes	East	4	735	RSS-H650-024	Use existing driveway (TA-PI-007) to pass by residences. Post both enter and exit caution/slow signage to alert contractors. Proposed Barricade Fence 100 linear feet from corner of house.
Pittsylvania	4.5	Garage	No	East	0	663	RSS-H650-024	Protect
Pittsylvania	4.5	Garage	No	East	0	748	RSS-H650-024	Protect
Pittsylvania	4.5	Farm Stalls	No	East	10	880	N/A	Stay within access road TA-PI-007 limits.
Pittsylvania	4.5	Barn	No	East	0	930	RSS-H650-024	Protect
Pittsylvania	4.5	Well Pump House	No	East	17	921	N/A	Stay within access road TA-PI-007 limits.
Pittsylvania	5.1	House	Yes	East	48	2,886	N/A	Stay within access road TA-PI-011 limits.

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Pittsylvania	6.5	Office	Yes	West	28	1,283	N/A	Stay within access road TA-PI-016 limits.
Pittsylvania	8.5	Shed	No	East	25	930	N/A	Stay within access road TA-PI-022 limits.
Pittsylvania	8.5	Shed	No	East	47	923	N/A	Stay within access road TA-PI-022 limits.
Pittsylvania	8.5	House	Yes	East	46	862	N/A	Stay within access road TA-PI-022 limits.
Pittsylvania	8.5	Shed	No	East	0	917	N/A	Stay within access road TA-PI-022 limits.
Pittsylvania	8.5	Shed	No	East	6	943	N/A	Stay within access road TA-PI-022 limits.
Pittsylvania	8.5	Shed	No	East	7	877	N/A	Stay within access road TA-PI-022 limits.
Pittsylvania	8.5	Shed	No	East	5	935	N/A	Stay within access road TA-PI-022 limits.
Pittsylvania	9.0	Barn	No	West	10	1,445	N/A	Stay within access road TA-PI-023 limits.
Pittsylvania	9.0	Barn	No	West	13	1,482	N/A	Stay within access road TA-PI-023 limits.
Pittsylvania	9.0	Tobacco Shed	No	West	5	1,642	N/A	Stay within access road TA-PI-023 limits.
Pittsylvania	10.3	2-Story House	Yes	East	34	59	RSS-H650-016	Protect – Proposed barricade fence.
Pittsylvania	10.3	Porch	Yes	East	22	46	RSS-H650-016	Protect – Proposed barricade fence.
Pittsylvania	10.3	Garage	No	East	29	54	RSS-H650-016	Protect
Pittsylvania	10.3	Shed	No	East	0	10	RSS-H650-016	To be removed
Pittsylvania	10.6	Shed	No	East	49	110	N/A	Protect
Pittsylvania	10.7	House - 2 story	Yes	East	28	88	N/A	Protect
Pittsylvania	10.8	Mailbox stone column	No	West	0	14	N/A	Remove
Pittsylvania	10.8	Stone entry wall	No	West	0	0	N/A	Remove
Pittsylvania	10.8	Stone entry wall	No	East	0	14	N/A	Remove
Pittsylvania	13.1	Shed	No	East	11	205	N/A	Stay within access road TA-PI-032 limits.

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Pittsylvania	14.9	House	Yes	East	46	152	N/A	Protect
Pittsylvania	15.9	Garage	No	East	5	55	N/A	Protect
Pittsylvania	16.0	Shed	No	East	0	164	N/A	Protect
Pittsylvania	16.3	Mobile home - single wide	Yes	East	28	86	N/A	Protect
Pittsylvania	16.3	Garage	No	East	28	133	N/A	Protect
Pittsylvania	16.7	1-Story House	Yes	West	28	282	RSS-H650-029	Use existing driveway (TA-PI-041) to pass by residences. Post both enter and exit caution/slow signage to alert contractors.
Pittsylvania	17.2	Barn	No	East	0	1,718	N/A	Protect
Pittsylvania	17.2	House	Yes	East	31	1,857	N/A	Stay within access road TA-PI-043 limits.
Pittsylvania	18.4	Tobacco Shed	No	West	5	29	N/A	Protect
Pittsylvania	18.4	Tobacco Shed	No	West	10	34	N/A	Protect
Pittsylvania	19.1	Garage	No	East	46	108	N/A	Protect
Pittsylvania	19.6	Shed	No	West	34	93	N/A	Protect
Pittsylvania	19.9	Business - auto sales	No	West	35	288	N/A	Stay within access road TA-PI-050 limits.
Pittsylvania	20.2	Garage	No	East	18	35	N/A	Protect
Pittsylvania	20.2	Mobile home	Yes	East	26	81	RSS-H650-004	Install safety fence at limit of workspace extending 100 feet from house.
Pittsylvania	20.3	Car awning	No	East	5	44	RSS-H650-005	Proposed barricade fence. Protect

REVISED [Oct 2019] - Table 8-D Structures within 50 Feet of the Southgate Project								
State, County	**Approximate Milepost**	**Building Type (House, Shed, Garage, etc.)**	**Occupied (yes/no)**	**Direction from centerline of easement (North, East, South, West)**	**Distance from Edge of closest workspace limit (feet)**	**Distance From Centerline of easement (feet)**	**Residential Construction Plan Number a/**	**Mountain Valley Proposed Action a/**
Pittsylvania	20.3	Mobile home	Yes	East	26	61	RSS-H650-005	The workspace has been adjusted in this location. Proposed barricade fence. Protect
Pittsylvania	22.0	2-Story House	Yes	East	45	133	N/A	Protect
Pittsylvania	22.2	House - 1 story, fallen down	No	East	0	79	RSS-H650-041	Protect if possible or Remove
North Carolina								
Rockingham	28.1	Shed	No	West	33	3,678	N/A	Protect
Rockingham	29.2	Shed	No	West	37	1,331	N/A	Protect
Rockingham	29.2	Shed	No	West	23	1,217	N/A	Protect
Rockingham	29.2	Shed	No	West	26	1,185	N/A	Protect
Rockingham	29.6	Mobile home	Yes	West	43	1,680	N/A	Protect
Rockingham	30.0	Barn	No	West	0	1,397	RSS-H650-030	Protect
Rockingham	30.0	House	Yes	West	30	1,422	RSS-H650-030	Stay within access road TA-RO-080 limits.
Rockingham	30.5	House - 1 story, abandoned	No	North	3	43	RSS-H650-031	Protect
Rockingham	30.5	House - 1 story	Yes	South	29	122	N/A	Protect
Rockingham	30.7	House – 1 Story	Yes	East	40	100	N/A	Protect
Rockingham	31.7	House - 1 story	Yes	North	46	86	N/A	Protect
Rockingham	32.4	Shed	No	East	4	1,467	N/A	Stay within access road TA-RO-085 limits.

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Rockingham	32.5	1-Story House	Yes	East	20	1,430	RSS-H650-025	Stay within limits of access road TA-RO-085. Proposed barricade fence 100 linear feet from corner of house.
Rockingham	32.8	Barn	No	West	4	959	N/A	Stay within limits of access road TA-RO-087.
Rockingham	32.8	Barn	No	West	4	1551	N/A	Stay within limits of access road TA-RO-087.
Rockingham	35.4	Shed - abandoned	No	North	0	232	N/A	Protect if possible or remove
Rockingham	35.4	Mobile home	Yes	North	32	512	N/A	Stay within limits of access road TA-RO-092.
Rockingham	35.4	House - 1 story	Yes	North	27	560	N/A	Stay within limits of access road TA-RO-092.
Rockingham	36.4	Abandoned cabin	No	North	37	97	N/A	Protect
Rockingham	36.5	Abandoned cabin	No	North	32	91	N/A	Protect
Rockingham	36.5	Abandoned cabin	No	North	30	90	N/A	Protect
Rockingham	36.5	Abandoned cabin	No	North	30	93	N/A	Protect
Rockingham	36.6	Barn	No	South	25	64	N/A	Protect
Rockingham	36.6	Garage	No	South	35	150	N/A	Protect
Rockingham	36.6	House	No	South	36	151	N/A	Protect
Rockingham	37.1	House - 1 story, abandoned	No	East	0	48	RSS-H650-032	Protect if possible or remove.
Rockingham	37.70	House	Yes	West	45	1,365	N/A	Stay within limits of access road TA-RO-102.
Rockingham	39.60	Barn	No	West	12	493	N/A	Stay within limits of access road TA-RO-107.
Rockingham	39.60	Barn	No	West	14	502	RSS-H650-046	Stay within limits of access road TA-RO-107.
Rockingham	39.60	1-Story House	Yes	West	12	490	RSS-H650-046	Stay within limits of access road TA-RO-107.

REVISED [Oct 2019] - Table 8-D Structures within 50 Feet of the Southgate Project								
State, County	**Approximate Milepost**	**Building Type (House, Shed, Garage, etc.)**	**Occupied (yes/no)**	**Direction from centerline of easement (North, East, South, West)**	**Distance from Edge of closest workspace limit (feet)**	**Distance From Centerline of easement (feet)**	**Residential Construction Plan Number a/**	**Mountain Valley Proposed Action a/**
Rockingham	40.3	House - 1 story	Yes	East	26	65	RSS-H650-034	The workspace has been adjusted in this location. Proposed barricade fence. Protect
Rockingham	40.9	Shed	No	West	44	1,229	N/A	Stay within limits of access road TA-RO-111.
Rockingham	40.9	House	Yes	West	50	1,304	N/A	Stay within limits of access road TA-RO-111.
Rockingham	40.9	Shed	No	West	22	1,313	N/A	Stay within limits of access road TA-RO-111.
Rockingham	41.4	Abandoned Old House	No	West	0	0	RSS-H650-047	Remove
Rockingham	41.4	House	Yes	West	13	1,514	RSS-H650-048	Stay within limits of access road TA-RO-112.
Rockingham	41.4	House	Yes	West	50	1,697	N/A	Stay within limits of access road TA-RO-112.
Rockingham	41.8	Barn	No	North	23	804	N/A	Stay within limits of access road TA-RO-113A.
Rockingham	42.4	Shed	No	West	9	47	N/A	Protect
Rockingham	43.1	Garage	No	East	5	46	N/A	Protect
Rockingham	43.1	1-Story House	No	West	11	114	RSS-H650-039	Protect
Rockingham	43.9	Shed, abandoned	No	East	2	886	N/A	Stay within limits of access road TA-RO-119.
Rockingham	44.1	Shed	No	East	5	1,328	N/A	Stay within limits of access road TA-RO-122.
Rockingham	44.1	Shed	No	East	0	1,615	RSS-H650-026	Protect
Rockingham	44.1	1- Story House	Yes	East	3	1,612	RSS-H650-026	Stay within limits of access road TA-RO-122. Proposed barricade fence.
Rockingham	45.0	House - 2 story, abandoned	No	West	26	110	N/A	Stay within limits of access road TA-RO-125.
Rockingham	46.1	Storage building	No	West	24	718	N/A	Protect
Rockingham	46.1	Shed	No	West	47	750	N/A	Stay within limits of access road TA-RO-127.
Rockingham	46.1	Shed	No	West	0	884	N/A	Stay within limits of access road TA-RO-127.

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Rockingham	46.1	Shed	No	West	21	928	N/A	Stay within limits of access road TA-RO-127.
Rockingham	46.1	Mobile home	Yes	North	32	925	N/A	Stay within limits of access road TA-RO-127.
Rockingham	46.1	1-Story House	Yes	West	18	1,058	RSS-H650-027	Stay within limits of access road TA-RO-127. Proposed barricade fence.
Rockingham	46.1	House	Yes	West	35	2,205	N/A	Stay within limits of access road TA-RO-127.
Rockingham	49.1	House - 2 story, log cabin, abandoned	No	Crosses	0	0	RSS-H650-001	To be removed
Rockingham	49.2	Dilapidated shack	No	West	0	3	RSS-H650-002	To be removed
Rockingham	49.2	Smoke House	No	East	0	10	RSS-H650-002	To be removed
Rockingham	49.3	Chicken coop	No	Crosses	0	0	RSS-H650-002	To be removed
Rockingham	49.3	Shed	No	East	0	31	RSS-H650-002	To be removed
Rockingham	49.3	House - 2 story, abandoned	No	East	11	59	RSS-H650-002	The workspace has been adjusted in this location Protect
Rockingham	49.3	Shed	No	East	0	62	N/A	Relocate if possible, or remove.
Rockingham	49.8	Car awning	No	West	44	635	N/A	Stay within limits of access road TA-RO-138.
Rockingham	52.6	Tractor awning	No	North	21	153	N/A	Protect
Alamance	52.9	1-Story House	Yes	East	32	125	N/A	Protect
Alamance	53.0	Barn, abandoned	No	East	7	154	N/A	Protect
Alamance	53.0	Barn, abandoned	No	East	20	155	N/A	Protect
Alamance	53.0	Shed	No	East	0	33	N/A	Relocate if possible, or remove.
Alamance	53.0	Falling down wood building	No	East	0	57	N/A	Remove
Alamance	54.7	Barn	No	West	10	1,907	N/A	Stay within limits of access road TA-AL-155.
Alamance	54.7	Barn	No	West	18	1,962	N/A	Stay within limits of access road TA-AL-155.

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Alamance	54.7	Barn	No	West	5	1,976	N/A	Stay within limits of access road TA-AL-155.
Alamance	54.7	Barn	No	West	15	2,071	N/A	Stay within limits of access road TA-AL-155.
Alamance	54.7	Barn	No	West	0	2,058	N/A	Protect
Alamance	54.7	Barn	No	West	0	2,210	N/A	Protect
Alamance	54.7	Garage	No	West	21	2,256	N/A	Stay within limits of access road TA-AL-155.
Alamance	54.7	House, 1-Story	No	West	29 b/	2,100	RSS-H650-040	Protect
Alamance	55.1	Shed	No	East	21	126	N/A	Protect
Alamance	56.5 RR	Garage	No	East	35	193	N/A	Protect
Alamance	56.8	Shed	No	West	10	219	N/A	Protect
Alamance	57.3	Shed	No	East	17	73	N/A	Protect
Alamance	57.3	Garage	No	East	15	106	N/A	Protect
Alamance	57.8	Barn, abandoned	No	East	6	120	N/A	Protect
Alamance	57.8	Mobile home	Yes	North	26	83	RSS-H650-008	The workspace has been adjusted in this location. Proposed barricade fence. Protect
Alamance	57.8	Barn	No	East	12	256	N/A	Stay within limits of access road TA-AL-161.
Alamance	58.0	Barn	No	East	18	434	N/A	Stay within limits of access road TA-AL-162.
Alamance	59.1	1-Story House	Yes	South	43	115	N/A	Protect
Alamance	59.1	Shed	No	South	0	91	N/A	Protect
Alamance	59.2	1-Story House	Yes	South	44	84	N/A	Protect
Alamance	59.2 RR	Shed	No	North	8	75	N/A	Protect
Alamance	59.2 RR	Shed	No	North	10	106	N/A	Protect
Alamance	59.4 RR	House	Yes	North	47	82	N/A	Protect

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Alamance	61.5	Shed	No	East	26	180	N/A	Stay within limits of access road TA-AL-168.
Alamance	61.5	Shed	No	East	38	175	N/A	Stay within limits of access road TA-AL-168.
Alamance	62.5	Shed	No	North	0	327	N/A	Protect
Alamance	62.7	1-Story House	No	North	6	515	RSS-H650-037	Protect
Alamance	62.5	Barn	No	North	0	62	N/A	To be removed
Alamance	65.0 RR	Shed	No	Crosses	0	0	N/A	To be removed
Alamance	66.4 RR	Barn	No	Crosses	0	0	N/A	To be removed
Alamance	66.9 RR	Shed	No	West	0	31	N/A	To be removed
Alamance	67.0 RR	Shed	No	East	26	167	N/A	Protect
Alamance	67.0 RR	Barn	No	East	3	43	N/A	Protect
Alamance	67.1 RR	1-Story House	Yes	West	16	76	RSS-H650-051	Protect
Alamance	67.1 RR	Barn	No	West	22	82	N/A	Protect
Alamance	67.3 RR	1-Story House	Yes	West	18	1,013	RSS-H650-028	Stay within limits of access road TA-AL-180. Proposed barricade fence 100 linear feet from corner of house.
Alamance	67.3 RR	1-Story House	Yes	West	8	921	RSS-H650-028	Stay within limits of access road TA-AL-180. Proposed barricade fence 100 linear feet from corner of house.
Alamance	67.3 RR	Barn	Yes	West	12	795	RSS-H650-028	Stay within limits of access road TA-AL-180. Proposed barricade fence 100 linear feet from corner of house.
Alamance	67.3 RR	Barn	Yes	West	15	708	RSS-H650-028	Stay within limits of access road TA-AL-180. Proposed barricade fence 100 linear feet from corner of house.
Alamance	67.3 RR	Barn	Yes	West	2	600	RSS-H650-028	Stay within limits of access road TA-AL-180. Proposed barricade fence 100 linear feet from corner of house.
Alamance	67.9	Barn	No	East	6	1,146	N/A	Stay within limits of access road TA-AL-181.
Alamance	68.2	House	No	West	28	1,203	N/A	Stay within limits of access road TA-AL-181A.

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Alamance	68.2	Mobile home	No	West	28	1,143	N/A	Stay within limits of access road TA-AL-181A.
Alamance	68.2	House	Yes	West	43	1,055	N/A	Stay within limits of access road TA-AL-181A.
Alamance	68.2	1-Story House	No	West	10	863	RSS-H650-038	Protect
Alamance	68.2	Car port	No	West	34	655	N/A	Stay within limits of access road TA-AL-181A.
Alamance	68.2	Garage	No	West	36	479	N/A	Stay within limits of access road TA-AL-181A.
Alamance	68.6	Barn	No	North	5	76	N/A	Protect
Alamance	69.1	2-Story House	Yes	East	26	88	RSS-H650-009	Install safety fence at limit of workspace extending 100 feet from house.
Alamance	69.3	Shed	No	North	7	66	N/A	Protect
Alamance	69.3	Chicken / rabbit coop	No	Crosses	0	0	N/A	Remove or Relocate
Alamance	69.3	Shed	No	North	0	4	N/A	Remove or Relocate
Alamance	69.4	Shed	No	North	31	117	N/A	Protect
Alamance	69.4	Portable building	No	North	32	116	N/A	Protect
Alamance	69.4	Shed in concrete	No	North	28	87	N/A	Protect
Alamance	69.4	Shed	No	North	43	104	N/A	Protect
Alamance	69.5	Shed	No	East	48	117	N/A	Protect
Alamance	69.6 RR	2-Story House	Yes	East	13	35	RSS-H650-050	Protect
Alamance	69.6 RR	Store	No	West	2	27	N/A	Protect
Alamance	69.6 RR	Store	No	West	16	76	N/A	Protect
Alamance	69.6 RR	House	Yes	East	31	71	N/A	Protect

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Alamance	69.7 RR	House	Yes	West	26	77	N/A	Protect
Alamance	69.7 RR	House	Yes	West	26	98	N/A	Protect
Alamance	69.7 RR	Abandoned clothing factory	No	East	5	48	N/A	Protect
Alamance	69.9 RR	Abandoned clothing factory	No	East	5	47	N/A	Protect
Alamance	69.9 RR	Commercial building	No	East	0	32	N/A	To be removed
Alamance	70.7	Shed, fallen down	No	West	35	76	N/A	Protect
Alamance	71.4	Green House	No	East	48	107	N/A	Protect
Alamance	71.4	Green House	No	East	38	100	N/A	Protect
Alamance	72.2	Shed	No	East	48	174	N/A	Protect
Alamance	72.7	Garage	No	East	38	97	N/A	Protect
Alamance	72.8 RR	Shed	No	East	16	64	N/A	Protect
Alamance	72.8 RR	Garage	No	West	48	56	RSS-H650-015	N/A
Alamance	72.8 RR	Garage	No	Crosses	0	0	RSS-H650-015	To be removed
Alamance	72.8 RR	Camper	No	Crosses	0	0	RSS-H650-015	To be removed
Alamance	72.8 RR	Shed	No	East	45	182	N/A	Protect
Alamance	72.9 RR	Mobile home	Yes	West	11	37	RSS-H650-036	Protect
Alamance	72.9 RR	1-Story House - Abandoned	No	Crosses	0	0	RSS-H650-036	To be removed
Pittsylvania	CY-01	House - 1 story	No	North	0	1,511	RSS-H650-033	Install safety fence around the house at a 1-foot off-set from the property line.
Pittsylvania	CY-01	Garage	No	North	0	1,586	RSS-H650-033	Install safety fence around the house at a 1-foot off-set from the property line.
Pittsylvania	CY-03	Warehouse	No	East	0	58,418	N/A	N/A

REVISED [Oct 2019] - Table 8-D

Structures within 50 Feet of the Southgate Project

State, County	Approximate Milepost	Building Type (House, Shed, Garage, etc.)	Occupied (yes/no)	Direction from centerline of easement (North, East, South, West)	Distance from Edge of closest workspace limit (feet)	Distance From Centerline of easement (feet)	Residential Construction Plan Number a/	Mountain Valley Proposed Action a/
Rockingham	CY-05	House - 1 story	Yes	West	0	15,620	RSS-H650-003	Install safety fence around the house at a 1-foot off-set from the property line and 15-foot offset from the house.
Rockingham	CY-05	Fuel bays	No	West	0	15,418	N/A	N/A
Rockingham	CY-05	Truck stop	No	West	0	15,368	N/A	N/A
Rockingham	CY-05	Garage bays	No	West	0	15,325	N/A	N/A
Rockingham	CY-05	Warehouse	No	West	0	14,825	N/A	N/A
Rockingham	CY-05	Garage	No	West	0	14,725	N/A	N/A
Pittsylvania	CY-19	House - 2 story	Yes	West	26	10,188	RSS-H650-043	The limit of disturbance for the contractor yard will be trimmed to allow 26 feet between the limit of the yard and the residence
Pittsylvania	CY-22	House - 1 story Fallen down	No	West	26	11,527	RSS-H650-044	The limit of disturbance for the contractor yard will be trimmed to allow 26 feet between the limit of the yard and the residence

a/ See Appendix 8-C. N/A = Not Applicable.
b/ Pending civil survey, approximate distance based on aerial photography.

REVISED [Oct 2019] - Table 23-1						
Drawing No.	**Milepost**	**Tract No(s)**	**Noise and vibration mitigation (See EIR# 23b)**	**Other construction techniques (See EIR# 23c)**	**Landowner negotiation status for residences to be removed (See EIR# 23d)**	**Landowner negotiation status for residences within 15 feet of construction workspace areas (See EIR# 24)**
RSS-H650-001	49.10	NC-RO-162.000	Not Applicable	To be Removed	Negotiating	Negotiating
RSS-H650-002	49.25	NC-RO-165.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Not Applicable	Not Applicable	Negotiating
RSS-H650-003	CY-05	NC-RO-001.200.CY05 NC-RO-001.300.CY05 NC-RO-001.400.CY05	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Install safety fence around the house at a 1-foot off-set from the property line and 15-foot offset from the house.	Not Applicable	NC-RO-001.200.CY05 NC-RO-001.300.CY05 – ARE BOTH ACQUIRED NC-RO-001.200.CY05 is not and will not be an occupied residence. Available for CY office space as offered by the Landowner. Landowner has stated they have no intention of allowing residential occupation. NC-RO-001.400.CY05 is Negotiating.
RSS-H650-024	4.50	VA-PI-033.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Use existing driveway (TA-PI-007) to pass by residences. Post both enter and exit caution/slow signage to alert contractors. Proposed Barricade Fence 100 linear feet from corner of house.	Not Applicable	Acquired - No specific Agreement regarding structure.

REVISED [Oct 2019] - Table 23-1						
Drawing No.	**Milepost**	**Tract No(s)**	**Noise and vibration mitigation (See EIR# 23b)**	**Other construction techniques (See EIR# 23c)**	**Landowner negotiation status for residences to be removed (See EIR# 23d)**	**Landowner negotiation status for residences within 15 feet of construction workspace areas (See EIR# 24)**
RSS-H650-026	44.10	NC-RO-133.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Stay within limits of access road TA-RO-122. Proposed barricade fence.	Not Applicable	Acquired - No specific Agreement regarding structure.
RSS-H650-028	67.30	NC-AL-133.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Stay within limits of access road TA-AL-180. Proposed barricade fence 100 linear feet from corner of house.	Not Applicable	Acquired
RSS-H650-031	30.5	NC-RO-019.000 NC-RO-022.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Protect	Not Applicable	NC-RO-019.000 is Negotiating NC-RO-022.000 - Acquired
RSS-H650-032	37.1	NC-RO-069.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Not Applicable	Acquired - No specific Agreement regarding structure.	Acquired - No specific Agreement regarding structure.

REVISED [Oct 2019] - Table 23-1						
Drawing No.	**Milepost**	**Tract No(s)**	**Noise and vibration mitigation (See EIR# 23b)**	**Other construction techniques (See EIR# 23c)**	**Landowner negotiation status for residences to be removed (See EIR# 23d)**	**Landowner negotiation status for residences within 15 feet of construction workspace areas (See EIR# 24)**
RSS-H650-033	CY-01	VA-PI-002.015	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Install safety fence around the house at a 1-foot off-set from the property line.	Not Applicable	Mountain Valley owns parcel and structure.
RSS-H650-036	72.9	NC-AL-207.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Not Applicable	Removal of structure is currently being discussed as part of negotiation	Agreement pending execution
RSS-H650-037	62.7	NC-AL-086.200	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Not Applicable	Not Applicable	Negotiating
RSS-H650-038	68.2	NC-AL-143.100	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Not Applicable	Not Applicable	Negotiating

REVISED [Oct 2019] - Table 23-1						
Drawing No.	**Milepost**	**Tract No(s)**	**Noise and vibration mitigation (See EIR# 23b)**	**Other construction techniques (See EIR# 23c)**	**Landowner negotiation status for residences to be removed (See EIR# 23d)**	**Landowner negotiation status for residences within 15 feet of construction workspace areas (See EIR# 24)**
RSS-H650-039	43.1	NC-RO-118.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Not Applicable	Not Applicable	Acquired
RSS-H650-041	22.2	VA-PI-171.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Not Applicable	Acquired	Acquired
RSS-H650-046	39.6	NC-RO-094.300	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Stay within limits of access road TA-RO-107.	Not Applicable	Acquired
RSS-H650-047	41.4	NC-RO-111.000	Not Applicable	Remove	Acquired	Acquired
RSS-H650-048	41.4	NC-RO-111.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Stay within limits of access road TA-RO-112	Acquired	Acquired

REVISED [Oct 2019] - Table 23-1						
Drawing No.	**Milepost**	**Tract No(s)**	**Noise and vibration mitigation (See EIR# 23b)**	**Other construction techniques (See EIR# 23c)**	**Landowner negotiation status for residences to be removed (See EIR# 23d)**	**Landowner negotiation status for residences within 15 feet of construction workspace areas (See EIR# 24)**
RSS-H650-050	69.6	NC-AL-168.000	Minimize work duration by proactive construction planning and execution. Only utilize construction equipment necessary to complete the work scope. Limit work hours to daylight hours.	Not Applicable	Negotiating	Negotiating

MVP Southgate Project

Docket No. CP19-14-000

Landowner Complaint Resolution Procedure

October 2019

FERC Environmental Condition #9

Mountain Valley shall develop and implement an environmental complaint resolution procedure, and file such procedure with the Secretary, for review and approval by the Director of OEP. The procedure shall provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the Project and restoration of the right-of-way. Prior to **construction**, Mountain Valley shall mail the complaint procedures to each landowner whose property will be crossed by the Project.

a. In its letter to affected landowners, Mountain Valley shall:
    i. provide a local contact that the landowners should call first with their concerns; the letter shall indicate how soon a landowner should expect a response;
    ii. instruct the landowners that if they are not satisfied with the response, they should call Mountain Valley's Hotline; the letter shall indicate how soon to expect a response; and
    iii. instruct the landowners that if they are still not satisfied with the response from Mountain Valley's Hotline, they should contact the Commission's Landowner Helpline at 877-337-2237 or at LandownerHelp@ferc.gov.
b. In addition, Mountain Valley shall include in its weekly status report a copy of a table that contains the following information for each problem/concern:
    i. the identity of the caller and date of the call;
    ii. the location by milepost and identification number from the authorized alignment sheet(s) of the affected property;
    iii. a description of the problem/concern; and
    iv. an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.

MVP Southgate Project Response

The Project has developed and will implement an environmental complaint resolution procedure, Mountain Valley is filing this procedure with the Secretary, for review and approval by the Director of OEP. The procedure will provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the Project and restoration of the right-of-way. Prior to construction, the Project will mail in a letter, the complaint procedures to each landowner whose property will be crossed by the Project.

Below is the proposed environmental complaint resolution procedure.

ENVIRONMENTAL COMPLAINT RESOLUTION PROCEDURES

Mountain Valley Pipeline, LLC (Mountain Valley) will work to address and resolve complaints regarding the construction and restoration of the MVP Southgate Project (Project) in a timely manner. The Project team has worked diligently with landowners to identify the best possible route for the proposed pipeline and we value the relationships we have formed with these stakeholders. Mountain Valley will continue to work with landowners throughout the construction of the pipeline to address any issues that may arise and we have established specific procedures to resolve any landowner concerns.

First, Mountain Valley has established local contacts for landowners to call first with their concerns. The name and contact information for this local contact will be provided to landowners. Landowners should generally expect an initial response from the local contact within 24 hours.

Second, if landowners are not satisfied with the response from the local contact, they can call the Project's 24-hour hotline at 1-833-MV-SOUTH (1-833-687-6884) or send an email to mail@mvpsouthgate.com. The hotline is a toll-free number that serves as a means for landowners and stakeholders to contact appropriate representatives with questions, concerns, and complaints. The hotline call response process is as follows:

Step 1: Gathering Information

A Mountain Valley representative will contact and request all necessary information to complete the caller information section of the hotline record, including the caller's name, address, phone number, and brief description of the purpose of the call.

Step 2: Defining the Issues

The Mountain Valley representative will work with the caller to help understand and address their concerns. If a representative can resolve the issue, they will record this on the hotline record. Otherwise, the caller will be advised that their concerns have been documented and that they can generally expect a return call within 24 hours from an appropriate Mountain Valley representative.

Step 3: Resolution

If the issues are resolved during Step 2, a representative will complete the process by documenting how a resolution was reached for the hotline record. If a resolution is not reached during Step 2, the hotline record will be forwarded to the appropriate Mountain Valley representative who will return the call. The process for this issue should generally follow these steps until resolution is reached. For any contact received through a means other than the hotline or the local contact described above, the Mountain Valley representative will either (a) direct the landowner to the local contact or hotline as appropriate or (b) request all necessary information to complete the caller information section of the record including the caller's name, address, phone number, and Project reference and proceed to Step 2 above.

Third, if a resolution is not reached or the landowner is not satisfied with the response from Mountain Valley, then the landowner may contact the FERC Landowner Helpline at 877-337- 2237 or at LandownerHelp@ferc.gov.

Mountain Valley will include in its weekly status report a table that contains the following information for each problem/concern: the identity of the caller and date of the call; the location by milepost and identification number from the authorized alignment sheet(s) of the affected property;. a description of the problem/concern; and an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.

MVP Southgate Project

Docket No. CP19-14-000

Resource Report 9 Table Updates

October 2019

LIST OF TABLES

REVISED [Oct 2019] - Table 9.2-6

Estimated Construction Emissions from the MVP Southgate Project – 2020

SOURCE	2020 CONSTRUCTION EMISSIONS (TPY)							
	CO_2	CO	NOx	PM_{10}	PM_{25}	SO_2	VOC	HAPS
Lambert Compressor Station/Interconnect:								
Construction Equipment Engines	7,664	15.26	22.16	1.64	1.64	0.0413	3.13	0.18
On-Road Vehicle Travel	470	3.77	0.46	3.72	0.92	0.0033	0.13	0.05
Off-Road Vehicle Travel	1,766	5.78	3.87	17.63	2.04	0.0144	0.50	0.11
Earthmoving Fugitives	N/A	N/A	N/A	12.61	1.26	N/A	N/A	N/A
Wind Erosion	N/A	N/A	N/A	1.81	0.27	N/A	N/A	N/A
Open Burning	70	3.09	0.09	0.37	0.37	N/A	0.53	N/A
Lambert Total	**9,970**	**27.89**	**26.57**	**37.79**	**6.50**	**0.0589**	**4.29**	**0.34**
Meter Stations:								
Construction Equipment Engines	4,411	7.61	13.04	0.91	0.91	0.0238	1.71	0.10
On-Road Vehicle Travel	150	1.26	0.13	2.51	0.62	0.0010	0.04	0.02
Off-Road Vehicle Travel	1,855	4.52	4.46	15.44	1.84	0.0155	0.53	0.11
Earthmoving Fugitives	N/A	N/A	N/A	3.05	0.31	N/A	N/A	N/A
Wind Erosion	N/A	N/A	N/A	0.44	0.07	N/A	N/A	N/A
Open Burning	4	0.19	0.005	0.02	0.02	N/A	0.03	N/A
Meter Station Total	**6,420**	**13.57**	**17.64**	**22.38**	**3.76**	**0.0403**	**2.32**	**0.22**
Pipeline:								
Construction Equipment Engines	83,586	71.95	196.60	11.22	11.22	0.4379	24.76	1.92
On-Road Vehicle Travel	2,822	25.24	2.10	11.19	2.73	0.0190	0.75	0.32
Off-Road Vehicle Travel	1,464	6.50	2.77	18.01	2.04	0.0115	0.41	0.11
Earthmoving Fugitives	N/A	N/A	N/A	947.60	94.76	N/A	N/A	N/A
Wind Erosion	N/A	N/A	N/A	136.40	20.46	N/A	N/A	N/A
Open Burning	8,595	378.38	10.81	45.95	45.95	N/A	64.86	N/A
Pipeline Total	**96,467**	**482.07**	**212.28**	**1,170.3**	**177.15**	**0.4684**	**90.78**	**2.35**
Pipeline in Pittsylvania, VA	32,139	158.71	70.77	19.10	18.89	0.1564	29.91	0.78
Pipeline in Rockingham, NC	32,702	186.41	71.41	22.47	22.27	0.1558	34.68	0.78
Pipeline in Alamance, NC	31,626	136.95	70.11	16.46	16.26	0.1562	26.19	0.78
2020 TOTAL:	**112,857**	**523.5**	**256.5**	**1,230.5**	**187.4**	**0.6**	**97.4**	**2.9**

N/A indicates that the specific pollutant emissions are not expected from that source.

REVISED [Oct 2019] - Table 9.2-7

Estimated Construction Emissions from the MVP Southgate Project – 2021

SOURCE	2021 CONSTRUCTION EMISSIONS (TPY)							
	CO_2	CO	NOx	PM_{10}	PM_{25}	SO_2	VOC	HAPS
Lambert Compressor Station/Interconnect:								
Construction Equipment Engines	1,929	2.14	4.46	0.34	0.34	0.0101	0.69	0.04
On-Road Vehicle Travel	95	0.65	0.12	0.58	0.14	0.0007	0.03	0.01
Off-Road Vehicle Travel	233	0.84	0.49	2.48	0.29	0.0019	0.07	0.02
Earthmoving Fugitives	N/A	N/A	N/A	6.30	0.63	N/A	N/A	N/A
Wind Erosion	N/A	N/A	N/A	0.91	0.14	N/A	N/A	N/A
Open Burning	0.00	0.00	0.00	0.00	0.00	N/A	0.00	N/A
Lambert Total	**2,257**	**3.62**	**5.07**	**10.60**	**1.53**	**0.0126**	**0.78**	**0.07**
Meter Stations:								
Construction Equipment Engines	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	0.00
On-Road Vehicle Travel	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	0.00
Off-Road Vehicle Travel	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	0.00
Earthmoving Fugitives	N/A	N/A	N/A	0.00	0.00	N/A	N/A	N/A
Wind Erosion	N/A	N/A	N/A	0.00	0.00	N/A	N/A	N/A
Open Burning	0.00	0.00	0.00	0.00	0.00	N/A	0.00	N/A
Meter Station Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.0000**	**0.00**	**0.00**
Pipeline:								
Construction Equipment Engines	4,417	2.21	5.93	0.32	0.32	0.0221	1.14	0.10
On-Road Vehicle Travel	292	1.75	0.43	0.90	0.23	0.0022	0.08	0.03
Off-Road Vehicle Travel	131	0.60	0.24	1.64	0.19	0.0010	0.04	0.01
Earthmoving Fugitives	N/A	N/A	N/A	552.76	55.28	N/A	N/A	N/A
Wind Erosion	N/A	N/A	N/A	79.56	11.93	N/A	N/A	N/A
Open Burning	0.00	0.00	0.00	0.00	0.00	N/A	0.00	N/A
Pipeline Total	**4,840**	**4.56**	**6.61**	**635.19**	**67.94**	**0.0253**	**1.26**	**0.14**
Pipeline in Pittsylvania, VA	1,629	1.53	2.25	240.77	25.74	0.0086	0.42	0.05
Pipeline in Rockingham, NC	1,594	1.51	2.15	214.30	22.92	0.0083	0.41	0.04
Pipeline in Alamance, NC	1,617	1.52	2.21	180.12	19.29	0.0085	0.42	0.05
2021 TOTAL:	**7,097**	**8.2**	**11.7**	**645.8**	**69.5**	**0.04**	**2.0**	**0.2**

N/A indicates that the specific pollutant emissions are not expected from that source.

REVISED [Oct 2019] - Table 33-1 **Operational Fugitive Leaks and Blowdown Event Emissions from the MVP Southgate Project (Excluding the Lambert Compressor Station)**			
Pollutant	**Fugitive Leaks (Tons per Year)**	**Blowdown Events (Tons per Year)**	**Total (Tons per Year)**
VOC	0.2	4.2	4.4
CO2e	156	4,229	4,384
HAP (Hexane)	0.01	0.20	0.21

LIST OF TABLES

NO CHANGE - Table 9.3-15

Predicted Sound Levels – Compressor and Meter Station

Compressor/ Meter Station	NSA	Distance from Compressor/ Meter Station to NSA (feet)	Direction	Measured Existing Ambient (L_{dn} dBA)	Estimated Contribution of Station Equipment (L_{eq} dBA / L_{dn} dBA)		Combined, All Sources Including Ambient (L_{dn} dBA)	Increase Above Existing Condition (dB)
Lambert Compressor Station	1	3,480	WSW	46.8	41.6	48.0	50.5	3.7
	2	3,500	SW		35.2	41.6	47.9	1.1
	3	3,290	SE	62.8	34.3	40.7	62.8	0.0
	4	3,800	N	44.8	33.0	39.4	45.9	1.1
LN 3600 Interconnect	1	1,700	NNW	49.7	21.3	27.7	49.7	0.0
T-15 Dan River Interconnect	1	750	S	65.0	40.4	46.8	65.1	0.1
T-21 Haw River Interconnect	1	550	N	65.0	35.4	41.8	65.0	0.0

NO CHANGE - Table 9.3-8

Predicted Temporary Sound Levels Due to Construction, Single 12-Hour Daytime Shift

Compressor / Meter Station	NSA	Existing Ambient Sound Levels, dBA a/			Predicted Sound Level –Single Daytime Shift, dBA		Construction Plus Ambient, dBA		Temporary Increase in Sound Level, dBA	
		Day	Night	L_{dn}	Day	L_{dn}	Day	L_{dn}	Day	L_{dn}
Lambert Compressor Station / Interconnect	1	36.8	40.8	46.8	48.7	46.6	49.0	49.7	12.2	2.9
	2				46.5	44.4	46.9	48.8	10.2	2.0
	3	60.4	55.1	62.8	43.8	41.7	60.5	62.8	0.1	0.0
	4	38.6	38.4	44.8	42.7	40.7	44.1	46.3	5.5	1.4
LN 3600 Interconnect	1	47.2	42.1	49.7	51.2	49.1	52.7	52.4	5.4	2.7
T-15 Dan River Interconnect	1	63.1	57.1	65.0	64.7	62.7	67.0	67.0	3.9	2.0
T-21 Haw River Interconnect	1	62.8	57.2	65.0	67.1	65.1	68.5	68.1	5.6	3.1

a/ To be conservative, ambient levels have been processed to remove insect noise.

NO CHANGE - Table 9.3-9

Predicted Temporary Sound Levels Due to Construction, 24-Hour Construction Activities

Compressor / Meter Station	NSA	Existing Ambient Sound Levels, dBA a/			Predicted Sound Level –Single Daytime Shift, dBA		Construction Plus Ambient, dBA		Temporary Increase in Sound Level, dBA	
		Day	Night	L_{dn}	Night	L_{dn}	Night	L_{dn}	Night	L_{dn}
Lambert Compressor Station / Interconnect	1	36.8	40.8	46.8	45.9	53.1	47.1	54.0	6.3	7.2
	2				43.7	50.9	45.5	52.3	4.7	5.5
	3	60.4	55.1	62.8	41.0	48.2	55.3	63.0	0.2	0.1
	4	38.6	38.4	44.8	40.0	47.1	42.3	49.1	3.9	4.3
LN 3600 Interconnect	1	47.2	42.1	49.7	48.5	55.4	49.4	56.4	7.3	6.7
T-15 Dan River Interconnect	1	63.1	57.1	65.0	62.0	69.2	63.2	70.6	6.2	5.6
T-21 Haw River Interconnect	1	62.8	57.2	65.0	64.4	71.5	65.2	72.4	8.0	7.4

a/: To be conservative, ambient levels have been processed to remove insect noise.

REVISED [Oct 2019] - Table 9.3-11 Predicted Temporary Sound Levels Due to HDD / Railroad Crossing						
HDD and Railroad Crossing	**Distance and Direction of the Closest NSA to Site Center**	**Existing Ambient**	**Calculated Sound Level**		**Existing Ambient L_{dn} Plus L_{dn} of Operations**	**Temporary Change in the Ambient Sound Level**
		L_{dn} dBA	**L_{eq} dBA**	**L_{dn} dBA**	**L_{dn} dBA**	**L_{dn} dBA**
Dan River HDD	1400 feet N	42.8	46.5	52.9	53.3	10.5
Stony Creek Reservoir HDD	300 feet NW	39.7	54.2	60.6	60.6	20.9
Railroad Crossing 1	3550 feet E	58.9	38.7	45.1	59.0	0.2
Railroad Crossing 2	3000 feet S	41.1	31.9	38.3	42.9	1.8
Railroad Crossing 3	250 feet NW	45.5	63.1	69.5	69.5	24.0
Railroad Crossing 4	500 feet N	48.9	58.8	65.2	65.3	16.4

REVISED [Oct 2019] - Table 9.3-12 Predicted Temporary Sound Levels Due to HDD / Railroad Crossings with Noise Mitigation					
HDD Crossing (Entry or Exit Site)	**Distance and Direction of the Closest NSA to Site Center**	**Existing Ambient**	**Calculated L_{dn} of the Operations**	**Existing Ambient L_{dn} Plus L_{dn} of Operations**	**Temporary Change in the Ambient Sound Level**
		L_{dn} dBA	**L_{dn} dBA**	**L_{dn} dBA**	**L_{dn} dBA**
Stony Creek Reservoir HDD	300 feet NW	39.7	48.6	49.2	9.5
Railroad Crossing 3	250 feet NW	45.5	57.5	57.8	12.3
Railroad Crossing 4	500 feet N	48.9	53.2	54.6	5.7

Table 132-1, below, summarizes the predicted sound levels at the NSAs during the ESD event.

NO CHANGE - Table 132-1				
NSA	**Distance from Compressor Station to NSA, feet**	**Direction from Station to NSA**	**Highest Expected Sound Level Due to an ESD Event, L_{max} dBA**	**10-minute Average Sound Level of an ESD Event, Leq, dBA**
1	3,480	WSW	63.9	58.9
2	3,500	SW	63.4	58.4
3	3,290	SE	56.1	51.1
4	3,800	N	55.5	50.5

NO CHANGE - Table 36-1 **Predicted Sound Level Impact of an ESD Event on the 10-minute L_{eq}**						
NSA	**Distance from Compressor Station to NSA, feet**	**Direction from Station to NSA**	**Measured Night Average, L_{eq} dBA**	**10-minute L_{eq} of an ESD Event, L_{eq}, dBA**	**10-minute L_{eq} during an ESD Event (Ambient + Event Level), L_{eq} dBA**	**Potential Increase in 10-minute L_{eq}**
1	3,480	WSW	40.8	58.9	59.0	18.2
2	3,500	SW		58.4	58.5	17.7
3	3,290	SE	55.1	51.1	56.6	1.5
4	3,800	N	38.4	50.5	50.8	12.4

NO CHANGE - Table 36-2 **Predicted Sound Level Impact of an ESD Event on the 24-hour L_{dn}**							
NSA	**Distance from Compressor Station to NSA, feet**	**Direction from Station to NSA**	**Measured 24-hour Day Night Sound Level, L_{dn} dBA**	**10-minute Leq of an ESD Event, L_{eq}, dBA**	**L_{dn} for Single ESD Event, L_{dn} dBA**	**L_{dn} for a day with an ESD Event (Ambient + Event Level), L_{dn} dBA**	**Increase in the L_{dn} due to a Single ESD Event, dBA L_{dn}**
1	3,480	WSW	50.7	58.9	47.3	52.3	1.6
2	3,500	SW		58.4	46.8	52.2	1.5
3	3,290	SE	64	51.1	39.5	64.0	0.0
4	3,800	N	56.4	50.5	38.9	56.5	0.1

MVP Southgate Project

Docket No. CP19-14-000

Resource Report 10 Table Updates

October 2019

LIST OF TABLES

REVISED Table 10.5-1 Comparison of the Current Route (September 2019) and Route Alternative 1			
Feature	**Current Route (September. 2019)**	**Route Alternative 1**	**Difference**
General			
Total length (miles) a/	30.1	30.1	0
Length adjacent to existing ROW (miles)	15.2	4.6	-10.6
Land affected during construction (acres) a/	365.3	365.2	-0.1
Land affected during operation (acres) a/	182.7	182.6	-0.1
Land Use			
Populated areas within ½ mile (number)	0	0	0
National Forest System lands crossed (miles)	0	0	0
National Forest Wilderness crossed (miles)	0	0	0
State lands crossed (forests, parks, wildlife management areas) (miles)	0	0	0
Scenic Trail crossings (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Designated Natural and Scenic Rivers, Nationwide Rivers Inventory, significant fisheries, ponds/lakes (number)	1	0	-1
NRHP designated or eligible historic districts crossed (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	1	0	-1
Landowner parcels crossed (number)	159	159	2
Number of residences within 25 and 50 feet of the edge of the construction ROW	1 / 4	0 /11	-1 / +7
Environmental Justice Areas (miles)	6.8	4.1	-2.7
Resources			
Agricultural Land crossed (miles) c/	10.5	9.5	-1
Open Land crossed (miles)	8.3	6.9	-1.4
Residential Land (miles)	0.1	0.4	+0.3
Commercial/Industrial Land (miles)	0.5	0.3	-0.2
Forest Areas (miles)	14.7	17.4	+2.7
Forested Land affected during construction (acres)	179.1	209.3	+30.2
Forested Land affected during operation (acres)	89.2	104.8	+15.6
Total Wetlands (NWI) crossed (feet)	1289	726	-563
NWI Wetlands affected by construction (acres) b/	2.2	1.4	-0.8
PEM NWI wetlands affected by construction (acres) b/	0.1	0	-0.1
PEM NWI wetlands affected by operation (acres) a/	0.1	0	-0.1
PSS NWI wetlands affected by construction (acres) b/	0.7	0.6	-0.1
PSS NWI wetlands affected by operation (acres) a/	0.4	0.4	0
PFO NWI wetlands crossed (feet)	813	391	-422
PFO NWI wetlands affected by construction (acres) b/	1.4	0.8	-0.6
PFO NWI wetlands affected by operation (acres) a/	0.9	0.5	-0.4
Perennial waterbody crossings (number)	16	14	-2
Crossings of major waterbodies (>100 feet) (number)	0	0	0

REVISED Table 10.5-1

Comparison of the Current Route (September 2019) and Route Alternative 1

Feature	Current Route (September. 2019)	Route Alternative 1	Difference
Presence of critical habitat or federally endangered or threatened species (Yes/No). Number of species.	No/0	No/0	0
Shallow bedrock crossed (miles)	4.4	3.8	-0.6
Karst area crossed (miles)	0	0	0

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW. Includes a 5.4-mile long lateral from Alternative 1 to an interconnect with PSNC Energy, east of Eden, North Carolina.

b/ Assuming 75-foot-wide construction ROW.

c/ Includes pasture/hay and cultivated crops.

Populated Areas = census designated places, consolidated cites, and incorporated places.

ROW = right-of-way. NWI = National Wetland Inventory. NRHP = National Register of Historic Places.

PEM = Palustrine Emergent Wetland; PSS = Palustrine Scrub-Shrub Wetland; PFO = Palustrine Forested Wetland.

Information Sources:

GIS – Analysis based on Geodatabase layers and shapefiles.

NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page

VA Parcel Boundaries and Standard Fields - https://www.arcgis.com/home/item.html?id=f1dccaf1f42e40cbba791feae2e23690

NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus

NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/

USGS – U.S. Geological Survey - http://www.usgs.gov/

NHD – National Hydrography Dataset - http://nhd.usgs.gov/

USDA - https://data.fs.usda.gov/geodata/edw/datasets.php

NRHP - National Register of Historic Places - https://www.nps.gov/nr/research/data_downloads.htm

ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 10.5-2 Comparison of the Current Route (September 2019) and Route Alternative 2			
Feature	**Current Route (September 2019)**	**Route Alternative 2**	**Difference**
General			
Total length (miles) a/	43.3	43.3	0
Length adjacent to existing ROW (miles)	19.1	7.1	-12
Land affected during construction (acres) a/	525.2	525.4	+0.2
Land affected during operation (acres) a/	262.7	262.6	-0.1
Land Use			
Populated areas within ½ mile (number)	0	0	0
National Forest System lands crossed (miles)	0	0	0
National Forest Wilderness crossed (miles)	0	0	0
State lands crossed (forests, parks, wildlife management areas) (miles)	0	0	0
Scenic Trail crossings (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Designated Natural and Scenic Rivers, Nationwide Rivers Inventory, significant fisheries, ponds/lakes (number)	2	0	-2
NRHP designated or eligible historic districts crossed (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	1	0	-1
Landowner parcels crossed (number)	233	200	--33
Number of residences within 25 and 50 feet of the edge of the construction ROW	1 / 6	2 /11	+1 /+5
Environmental Justice Areas (miles)	6.8	3.4	-3.4
Resources			
Agricultural Land crossed (miles) c/	17.2	13.7	+3.5
Open Land crossed (miles)	13.5	10.6	-2.9
Residential Land (miles)	0.2	0.3	+0.1
Commercial/Industrial Land (miles)	0.6	0.3	-0.3
Forest Areas (miles)	20.2	22.6	+2.4
Forested Land affected during construction (acres)	246	274.7	+28.7
Forested Land affected during operation (acres)	122.7	137.3	+14.6
Total Wetlands (NWI) crossed (feet)	2,007	3,047	+1,040
NWI Wetlands affected by construction (acres) b/	2.9	5.4	2.5
PEM NWI wetlands affected by construction (acres) b/	0.8	0	-0.8
PEM NWI wetlands affected by operation (acres) a/	0.6	0	-0.6
PSS NWI wetlands affected by construction (acres) b/	0.7	0.5	-0.2
PSS NWI wetlands affected by operation (acres) a/	0.4	0.3	-0.1
PFO NWI wetlands crossed (feet)	833	2,763	+1,930
PFO NWI wetlands affected by construction (acres) b/	1.4	4.9	+3.5
PFO NWI wetlands affected by operation (acres) a/	0.9	3.3	+2.4
Perennial waterbody crossings (number)	18	19	+1
Crossings of major waterbodies (>100 feet) (number)	1	0	-1

REVISED Table 10.5-2

Comparison of the Current Route (September 2019) and Route Alternative 2

Feature	Current Route (September 2019)	Route Alternative 2	Difference
Presence of critical habitat or federally endangered or threatened species (Yes/No). Number of species.	No / 0	No / 0	0
Shallow bedrock crossed (miles)	4.4	4.3	-0.1
Karst area crossed (miles)	0	0	0

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW. Includes an 8.8-mile long lateral from Alternative 2 to an interconnect with PSNC Energy, east of Eden, North Carolina.

b/ Assuming 75-foot-wide construction ROW.

c/ Includes pasture/hay and cultivated crops.

Populated Areas = census designated places, consolidated cites, and incorporated places.

ROW = right-of-way. NWI = National Wetland Inventory. NRHP = National Register of Historic Places.

PEM = Palustrine Emergent Wetland; PSS = Palustrine Scrub-Shrub Wetland; PFO = Palustrine Forested Wetland.

Information Sources:

GIS – Analysis based on Geodatabase layers and shapefiles.

NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page

VA Parcel Boundaries and Standard Fields - https://www.arcgis.com/home/item.html?id=f1dccaf1f42e40cbba791feae2e23690

NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus

NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/

USGS – U.S. Geological Survey - http://www.usgs.gov/

NHD – National Hydrography Dataset - http://nhd.usgs.gov/

USDA - https://data.fs.usda.gov/geodata/edw/datasets.php

NRHP - National Register of Historic Places - https://www.nps.gov/nr/research/data_downloads.htm

ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 10.5-3 Comparison of the Current Route (September 2019) and Route Alternative 3			
Feature	**Current Route (September 2019)**	**Route Alternative 3**	**Difference**
General			
Total length (miles) a/	61.1	63.4	+2.3
Length adjacent to existing ROW (miles)	31	25.5	-5.5
Land affected during construction (acres) a/	740.4	768.7	+28.3
Land affected during operation (acres) a/	370.3	384.3	+14
Land Use			
Populated areas within ½ mile (number)	0	1	+1
National Forest System lands crossed (miles)	0	0	0
National Forest Wilderness crossed (miles)	0	0	0
State lands crossed (forests, parks, wildlife management areas) (miles)	0	0	0
Scenic Trail crossings (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Designated Natural and Scenic Rivers, Nationwide Rivers Inventory, significant fisheries, ponds/lakes (number)	2	0	-2
NRHP designated or eligible historic districts crossed (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	2	0	-2
Landowner parcels crossed (number)	323	376	+53
Number of residences within 25 and 50 feet of the edge of the construction ROW	4 / 12	2 / 23	-2 / 11
Environmental Justice Areas (miles)	6.8	17.2	+10.4
Resources			
Agricultural Land crossed (miles) c/	25.0	15.1	-9.9
Open Land crossed (miles)	20.2	12.6	-7.6
Residential Land (miles)	0.4	1.0	+0.6
Commercial/Industrial Land (miles)	0.7	0.6	-0.1
Forest Areas (miles)	27.4	38.4	+11
Forested Land affected during construction (acres)	332.7	464.3	+131.6
Forested Land affected during operation (acres)	166	232.6	+66.6
Total Wetlands (NWI) crossed (feet)	2,231	3,159	+928
NWI Wetlands affected by construction (acres) b/	3.2	5.5	2.3
PEM NWI wetlands affected by construction (acres) b/	1.1	0.6	-0.5
PEM NWI wetlands affected by operation (acres) a/	0.8	0.4	-0.4
PSS NWI wetlands affected by construction (acres) b/	0.7	2.1	+1.4
Total PSS NWI wetlands affected by operation (acres) a/	0.5	1.2	+0.7
PFO NWI wetlands crossed (feet)	833	1,614	+781
PFO NWI wetlands affected by construction (acres) b/	1.4	2.8	+1.4
PFO NWI wetlands affected by operation (acres) a/	0.9	1.9	+1.0
Perennial waterbody crossings (number)	28	31	+3
Crossings of major waterbodies (>100 feet) (number)	1	0	-1

REVISED Table 10.5-3

Comparison of the Current Route (September 2019) and Route Alternative 3

Feature	Current Route (September 2019)	Route Alternative 3	Difference
Presence of critical habitat or federally endangered or threatened species (Yes/No). Number of species.	No / 0	No / 0	0
Shallow bedrock crossed (miles)	5.1	10.5	+5.4
Karst area crossed (miles)	1.9	0.6	-1.3

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW. Includes a 16.6-mile long lateral from Alternative 3 to an interconnect with PSNC Energy, east of Eden, North Carolina.

b/ Assuming 75-foot-wide construction ROW.

c/ Includes pasture/hay and cultivated crops.

Populated Areas = census designated places, consolidated cites, and incorporated places.

ROW = right-of-way. NWI = National Wetland Inventory. NRHP = National Register of Historic Places

PEM = Palustrine Emergent Wetland; PSS = Palustrine Scrub-Shrub Wetland; PFO = Palustrine Forested Wetland.

Information Sources:

GIS – Analysis based on Geodatabase layers and shapefiles.

NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page

VA Parcel Boundaries and Standard Fields - https://www.arcgis.com/home/item.html?id=f1dccaf1f42e40cbba791feae2e23690

NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus

NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/

USGS – U.S. Geological Survey - http://www.usgs.gov/

NHD – National Hydrography Dataset - http://nhd.usgs.gov/

USDA - https://data.fs.usda.gov/geodata/edw/datasets.php

NRHP - National Register of Historic Places - https://www.nps.gov/nr/research/data_downloads.htm

ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 10.5-4

Comparison of the Current Route (September 2019) and FERC Alternative 1

Feature	Current Route (September 2019)	FERC Alternative 1	Difference
Total length (miles)	5.6	8.7	-0.8
Construction right-of-way (acres) a/	114.7	105.4	-9.3
Permanent right-of-way (acres) a/	57.3	52.7	-4.6
Total number of parcels crossed	87	55	-32
Number of residences within 25 and 50 feet of the edge of the construction ROW	5 / 5	1 / 1	-4 / -4
Environmental Justice Areas (number)	3.4	0.5	-2.9
Residential Land (miles)	0.1	0.1	0
Commercial/Industrial Land (miles)	0.2	0.1	-0.1
Unlisted/Potential Eligible Historic Properties (number)	1	0	-1
National Trails, Recreation Trails, and Other Recreational Areas (number)	1	1	0
Number of waterbodies crossed	19	24	+5
Number of NWI wetlands crossed	1	9	+8
Total NWI wetland crossing length (feet)	25	3,990	+3,965
NWI wetlands within construction ROW (acres) b/	0.2	6.4	+6.2
Agricultural Land within construction ROW (acres) c/	30.8	18	-12.8
Forest Areas (miles)	5.7	5.3	-0.4
Forested Land affected during construction (acres)	68.3	65	-3.3
Forested Land affected during operation (acres)	34.4	32.4	-2
Length adjacent to existing ROW (miles)	0	5.6	+5.6

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
USGS – U.S. Geological Survey - http://www.usgs.gov/
NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 10.5-5

Comparison of the Current Route (September 2019) and FERC Alternative 2

Feature	Current Route (September 2019)	FERC Alternative 2	Difference
Total length (miles)	3.9	4.0	+0.1
Construction right-of-way (acres) a/	47.9	48.5	+0.6
Permanent right-of-way (acres) a/	23.9	24.2	+0.3
Total number of parcels crossed	43	32	-11
Number of residences within 25 and 50 feet of the edge of the construction ROW	5 / 5	0 / 0	-5 / -5
Environmental Justice Areas (number)	3.4	0.5	-2.9
Residential Land (miles)	0.1	0	0
Commercial/Industrial Land (miles)	0.1	0.1	0
Unlisted/Potential Eligible Historic Properties (number)	1	0	-1
National Trails, Recreation Trails, and Other Recreational Areas (number)	1	1	0
Number of waterbodies crossed	8	13	+5
Number of NWI wetlands crossed	0	9	+9
Total NWI wetland crossing length (feet)	0	4,163	+4,163
NWI wetlands within construction ROW (acres) b/	0.1	6.4	+6.3
Agricultural Land within construction ROW (acres) c/	6	5.8	-0.2
Forest Areas (miles)s	2.7	2.1	-0.6
Forested Land affected during construction (acres)	32.2	26.2	-6
Forested Land affected during operation (acres)	16.2	13	-3.2
Length adjacent to existing ROW (miles)	0	3.5	+3.5

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
USGS – U.S. Geological Survey - http://www.usgs.gov/
NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

Table 10.5-6

Comparison of the Current Route (September 2019) and FERC Alternative 3

In its *November 2018 Resource Report 10 – Alternatives*, the Project evaluated FERC Alternative 3 between MP 65.8 and MP 67.5 in Alamance County, North Carolina, at the request of FERC. Approximately 1.7 miles of FERC Alternative 3 is commensurate with the Mystic Valley Reroute. In its March 28, 2019 Supplemental Filing, the Project adopted and incorporated portions of FERC Alternative 3 and the Mystic Valley Reroute alignments into its preferred pipeline route. Therefore, FERC Alternative 3 has been eliminated from the analysis as it is no longer applicable.

REVISED Table 10.5-7

Comparison of the Current Route (September 2019) and FERC Alternative 4

Feature	Current Route (September 2019)	FERC Alternative 4	Difference
Total length (miles)	5.3	9.4	+4.1
Construction right-of-way (acres) a/	64.2	114.1	+49.9
Permanent right-of-way (acres) a/	32.1	57.0	+24.9
Total number of parcels crossed	55	56	1
Number of residences within 25 and 50 feet of the edge of the construction ROW	3 / 3	0 / 0	-3 / -3
Environmental Justice Areas (number)	1.3	4.3	+3.0
Residential Land (miles)	0.1	0.1	0
Commercial/Industrial Land (miles)	0.1	0.3	+0.2
Unlisted/Potential Eligible Historic Properties (number)	1	0	-1
National Trails, Recreation Trails, and Other Recreational Areas (number)	1	1	0
Number of waterbodies crossed	13	14	+1
Number of NWI wetlands crossed	1	5	+4
Total NWI wetland crossing length (feet)	25	321	+296
NWI wetlands within construction ROW (acres) b/	0.2	0.4	+0.2
Agricultural Land within construction ROW (acres) c/	14.9	37.7	+22.8
Forest Areas (miles)	3.4	5.3	+1.9
Forested Land affected during construction (acres)	40.2	64.6	+24.4
Forested Land affected during operation (acres)	20.3	32.2	+11.9
Length adjacent to existing ROW (miles)	0	1.9	+1.9

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
USGS – U.S. Geological Survey - http://www.usgs.gov/
NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 10.5-8

Comparison of the Current Route (September 2019) and FERC Alternative 5

Feature	Current Route (September 2019)	FERC Alternative 5	Difference
Total length (miles)	1.4	2.2	+0.8
Construction right-of-way (acres) a/	17.4	26.4	+9
Permanent right-of-way (acres) a/	8.7	13.1	+4.4
Total number of parcels crossed	16	19	+3
Number of residences within 25 and 50 feet of the edge of the construction ROW	2 / 2	0 / 0	-2/ -2
Environmental Justice Areas (number)	1.1	0.9	-0.2
Residential Land (miles)	0.1	0	-0.1
Commercial/Industrial Land (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of waterbodies crossed	3	3	0
Number of NWI wetlands crossed	0	0	0
Total NWI wetland crossing length (feet)	0	0	0
NWI wetlands within construction ROW (acres) b/	0	0	0
Agricultural Land within construction ROW (acres) c/	2.1	12	+9.9
Forest Areas (miles)	0.9	1	+0.1
Forested Land affected during construction (acres)	11.3	11.9	+0.6
Forested Land affected during operation (acres)	5.7	5.9	+0.2
Length adjacent to existing ROW (miles)	0	0	0

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
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ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 10.5-9

Comparison of the Current Route (September 2019) and FERC Alternative 6

Feature	Current Route (September 2019)	FERC Alternative 6	Difference
Total length (miles)	3.8	4.4	+0.6
Construction right-of-way (acres) a/	46.1	53.3	+7.2
Permanent right-of-way (acres) a/	23.0	26.6	+3.6
Total number of parcels crossed	21	28	+7
Number of residences within 25 and 50 feet of the edge of the construction ROW	0 / 0	1 / 1	+1 / +1
Environmental Justice Areas (number)	0	0	0
Residential Land (miles)	0	0	0
Commercial/Industrial Land (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of waterbodies crossed	5	10	+5
Number of NWI wetlands crossed	1	2	+1
Total NWI wetland crossing length (feet)	20	131	+111
NWI wetlands within construction ROW (acres) b/	0.1	0.3	+0.2
Agricultural Land within construction ROW (acres) c/	23.2	17.6	-5.6
Forest Areas (miles)	1.6	2.9	+1.3
Forested Land affected during construction (acres)	19.9	34.3	+14.4
Forested Land affected during operation (acres)	9.9	17.4	+7.5
Length adjacent to existing ROW (miles)	0.3	2.5	+2.2

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
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ESRI - GIS Mapping - http://www.esri.com/

Table 10.5-10

Comparison of the Original Route and Mystic Valley Reroute (Current Route - September 2019)

In its *November 2018 Resource Report 10 – Alternatives*, the Project evaluated the Mystic Valley Reroute (Preferred Route) Between MP 64.0 and MP 67.5 in Alamance County, North Carolina, to avoid a U.S. Army Corps of Engineers Cripple Creek Mitigation Bank and address landowner concerns along its original route. While the Mystic Valley Reroute resulted in similar environmental impacts as the original route, the Project determined that the Mystic Valley Reroute warranted adoption and incorporation into its preferred pipeline route because it avoided a U.S. Army Corps of Engineers Cripple Creek Mitigation Bank and eliminated landowner concerns along its original route. Therefore, the Mystic Valley Reroute has been eliminated from the analysis as it is no longer applicable.

REVISED Table 10.6-1

Comparison of the Current Route (September 2019) and Robert Pollok-Hill View Farms Variation

Feature	Current Route (September 2019)	Robert Pollok-Hill View Farms Variation	Difference
Total length (miles)	1.0	1.0	0
Construction right-of-way (acres) a/	12.2	12.1	-0.1
Total length within Robert Pollok-Hill View Farms Property (miles)	0.5	0.3	-0.2
Construction right-of-way within Robert Pollok-Hill View Farms Property (acres) a/	5.4	3.7	-1.7
Permanent right-of-way (acres) a/	6.0	6.0	0
Total number of parcels crossed	5	6	-1
Number of residences within 25 and 50 feet of the edge of the construction ROW	0/0	0/0	0/0
Residential Land (miles)	0	0	0
Commercial/Industrial Land (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of waterbodies crossed	0	0	0
Number of NWI wetlands crossed	0	0	0
Total NWI wetland crossing length (feet)	0	0	0
NWI wetlands within construction ROW (acres) b/	0	0	0
Agricultural Land within construction ROW (acres) c/	9.1	9.5	+0.4
Forest Areas (miles)	0.2	0.2	0
Forested Land affected during construction (acres)	2.8	2.3	-0.5
Forested Land affected during operation (acres)	1.4	1.2	-0.2
Length adjacent to existing ROW (miles)	0	1	+1

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
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NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 10.6-2

Comparison of the Current Route (September 2019) and MP 40.0 to MP 41.4 Variation

Feature	Current Route (September 2019)	MP 40.0 to MP 41.4 Variation	Difference
Total length (miles)	1.5	1.6	+0.1
Construction right-of-way (acres) a/	18.1	19.7	+1.6
Permanent right-of-way (acres) a/	9	9.8	+0.8
Total number of parcels crossed	10	8	-2
Number of residences within 25 and 50 feet of the edge of the construction ROW	1/1	0/0	-1/-1
Residential Land (miles)	0	0	0
Commercial/Industrial Land (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of waterbodies crossed	3	3	0
Number of NWI wetlands crossed	1	1	0
Total NWI wetland crossing length (feet)	243	303	+60
NWI wetlands within construction ROW (acres) b/	0.4	0.5	+0.1
Agricultural Land within construction ROW (acres) c/	1.6	3.1	+1.5
Forest Areas (miles)	0.9	1.1	+0.2
Forested Land affected during construction (acres)	11.3	12.9	+1.6
Forested Land affected during operation (acres)	5.6	6.4	+0.8
Length adjacent to existing ROW (miles)	0	0	0

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
USGS – U.S. Geological Survey - http://www.usgs.gov/
NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

Table 10.6-3

Comparison of the Original Route and MP 69.5 to MP 69.7 Variation (Current Route - September 2019)

In its *November 2018 Resource Report 10 – Alternatives*, the Project evaluated the MP 69.5 to MP 69.7 Variation (Preferred Route) in Alamance County, North Carolina, to avoid a significant part of the Town of Haw River's vision for revitalizing the downtown / Main Street core area that the original route crossed. While the MP 69.5 to MP 69.7 Variation resulted in similar environmental impacts as the original route, it avoided the Town of Haw River's vision for revitalizing the downtown/Main Street core area, addressed town concerns along its original route, and was adopted and incorporated into the Project's November 2018 preferred pipeline route.

In its *May 22, 2019 Supplemental Filing*, the Project evaluated a route variation (Town of Haw River Variation) that would relocate the pipeline route to the west, further from the Town of Haw River. While the Town of Haw River Variation did not offer a significant environmental advantage over the November 2018 pipeline route it offered significant advantages regarding reduced impacts to landowners and Town residents.

In its *June 21, 2019 Responses to Post-Application Environmental Information Request #3*, the Project explained that the Town of Haw River route variation was developed by the Project in an attempt to minimize impacts to the Town during the construction phase. The route variation closely resembles the Project's footprint during the pre-filing process (original route) and was surveyed during that timeframe. The May 2019 preferred route extends directly behind the Municipal Building and Fire Station was implemented after early discussions with Town of Haw management regarding future potential development near the pre-filed route. The Project noted that the Town of Haw River route variation has many benefits as it will reduce impacts to the Town residences, avoid direct impacts to the Fire Station and Community Center, and is expected to reduce overall construction duration in that area by 66% by diverting directly south to cross Main Street and running west behind former textile mill structures. A railroad crossing would occur further west and away from residences.

In its *August 9, 2019 Supplemental Information*, the Project adopted and incorporated Modification: MVP-VRR4-093-1422, which is a modified version of the Town of Haw River variations. This revised route will avoid constructing pipeline through Municipal Building parking lot, outdoor community center, and in close proximity to multiple residences. Therefore, the MP 69.5 to MP 69.7 Variation has been eliminated from the analysis as it is no longer applicable.

REVISED Table 10.6-4 Route Variations Incorporated into the MVP Southgate Project Pipeline					
Tract ID	**Reroute No.**	**Approx. Begin MP**	**Approx. End MP**	**Length (miles)**	**Variation Description / Justification**
VA-PI-001.000 VA-PI-002.000	MVP-RA-228-1624	0	-	-	H-605 Lambert Compressor Station Suction Line
VA-PI-002.000	MVP-RA-228-1627	0	-	-	Lambert Compressor Station Discharge Line
VA-PI-008.000 VA-PI-009.000	MVP-RA-143-1526	1	1.25	0.25	Adjusted centerline (“CL”) to be next to existing right-of-way (“ROW”)
VA-PI-012.000	MVP-RR-257-1422	2.25	-	-	Adjusted the access road TA-PI-005 to end at a additional temporary workspace (“ATWS”) that is outside of a wetland
VA-PI-014.000	MVP-RA-143-1527	2.35	2.7	0.35	Adjusted CL to be next to existing ROW
VA-PI-022.000 VA-PI-023.000	MVP-RR-257-1425	3.4	-	-	Extended access road TA-PI-006 to a public road
VA-PI-022.000 VA-PI-023.000	MVP-RR-228-1312	3.55	-	-	Contoured this work box to fit stream/wetland angles
VA-PI-029.000 VA-PI-030.000 VA-PI-031.000 VA-PI-032.000	MVP-RA-143-1528	4.25	4.4	0.15	Removed Point of Inflection (“PI's”)
VA-PI-032.000	MVP-RA-143-1529	4.6	4.9	0.30	Adjusted CL to be next to existing ROW
VA-PI-034.000	MVP-RA-143-1530	5	5.1	0.10	Minimized creek crossing and adjust PI away from creek crossing
VA-PI-034.000 VA-PI-034.000.RR VA-PI-035.000	MVP-RA-183-0855	5	5.3	0.30	Adjusted CL to avoid being in stream for approximately 600 feet.
VA-PI-034.000	MVP-RA-221-1831	5	-	-	Trimmed ATWS to 30' x 100' to avoid sensitive resource area
VA-PI-034.000	MVP-RA-221-1835	5	-	-	Removed. Reduce / avoid impact on sensitive resource area
VA-PI-034.000 VA-PI-034.100.AR	MVP-RA-253-1423	5.1	-	-	Modified access road layout
VA-PI-035.000	MVP-RA-218-1715	5.3	-	-	Access road removed
VA-PI-035.000 VA-PI-036.000	MVP-RA-253-1606	5.5	-	-	Removed TA-PI-044
VA-PI-035.100.AR VA-PI-036.000 VA-PI-037.000	MVP-VRR-270-1240	5.9	-	-	Extend access road to a public road
VA-PI-037.000	MVP-RA-153-1208	6.3	6.5	0.20	Adjusted CL to be next to existing ROW
VA-PI-041.000	MVP-RA-153-1215	7.2	7.3	0.10	Adjusted CL to be next to existing ROW
VA-PI-041.000 VA-PI-042.000 VA-PI-044.000	MVP-RA-228-1315	7.2	7.5	0.30	Straighten out and follow existing pipelines
VA-PI-043.000	MVP-RA-218-1732	7.6	-	-	Removed TA-PI-020
VA-PI-053.000	MVP-RR-183-0902	9.6	-	-	Adjusted access road to avoid cemetery

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-053.000	MVP-RA-254-1528	9.6	-	-	Modified access road layout
VA-PI-053.000	MVP-RR-183-0859	9.65	10	0.35	Adjusted centerline to avoid large cemetery
VA-PI-075.000 VA-PI-075.001.ASC VA-PI-076.000	MVP-RR-221-1024	11	11.5	0.50	Alternate route to avoid sensitive resource area
VA-PI-077.000	MVP-RR-255-1641	11.65	11.9	0.25	Adjusted centerline to avoid cemetery
VA-PI-079.000	MVP-RA-218-2017	12.2	-	-	Removed access road
VA-PI-082.000	MVP-RA-219-1725	12.4	-	-	Reduced ATWS to property lines to avoid cemetery
VA-PI-082.000	MVP-RA-219-1839	12.6	-	-	Removed access road
VA-PI-082.000	MVP-RA-219-1846	12.65	-	-	Removed access road
VA-PI-084.000	MVP-RA-153-1249	12.8	13.1	0.30	Adjusted CL to be next to existing ROW
VA-PI-092.200.AR	MVP-RR-219-0800	14.15	-	-	The landowner requested that the access road not to go past their house and barn but from the gates at the road along the property line
VA-PI-092.200.AR	MVP-RA-254-1542	14.15	-	-	Removed section of access road
VA-PI-094.000	MVP-RA-153-1254	14.2	14.4	0.20	Adjusted CL to be next to existing ROW
VA-PI-094.000 VA-PI-095.000 VA-PI-096.000	MVP-RA-153-1257	14.7	14.85	0.15	Adjusted CL to reduce the number of PIs.
VA-PI-096.000, VA-PI-099.000	MVP-RA-218-2043	14.8	15.2	0.40	Adjusted to route to the west based on the property evidence gathered and run the line north to a point of intersection with original route. Avoid VA-PI-097.000.ABU.
VA-PI-100.000 VA-PI-099.000 VA-PI-101.000	MVP-RA-153-1303	15.2	15.45	0.25	Adjusted CL to reduce the number of PIs in this location.
VA-PI-099.000	MVP-RR-218-2047	15.2	-	-	Landowner does not want the access road going by his house.
VA-PI-099.000 VA-PI-099.100.AR	MVP-RA-253-1127	15.4	-	-	Remove section of TA-PI-037
VA-PI-102.000.ABU VA-PI-103.000	MVP-RA-179-1227	15.7	15.85	0.15	Adjusted CL to be next to existing pipeline ROW. According to the LDAR info the slope is ~14.9% (8.2 deg)
VA-PI-103.000 VA-PI-104.000.ABU VA-PI-106.000	MVP-RA-199-1127	15.9	16.05	0.15	Avoided sensitive resource area.
VA-PI-106.000	MVP-RA-253-1124	16.1	-	-	Removed TA-PI-040

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-115.000 VA-PI-118.000	MVP-RA-219-1808	16.8	17.2	0.40	At 16.9, propose to cross the creek at a more perpendicular angle.
VA-PI-118.000	MVP-RA-253-1035	17.4	-	-	Removed TA-PI-044
VA-PI-120.000 VA-PI-121.000 VA-PI-122.000.ABU VA-PI-123.000 VA-PI-124.000	MVP-RA-163-1213	18	18.4	0.40	Adjusted CL to be next to the existing pipeline ROW. There is an old farm house and barn next to the existing pipeline ROW, potential karst area.
VA-PI-121.000	MVP-RA-197-1303	18	-	-	Adjusted CL of access road TA-PI-046 to avoid sensitive resource area
VA-PI-121.000 VA-PI-122.000.ABU VA-PI-123.000 VA-PI-124.000	MVP-RA-239-1745	18.2	18.35	0.15	Adjusted CL to avoid A frame electric poles
VA-PI-124.000	MVP-RA-239-1750	18.3	-	-	Mainline Valve 3
VA-PI-150.000	MVP-RA-228-1319	19.8	19.9	0.10	Crossed the existing lines square
VA-PI-150.000 VA-PI-151.000 VA-PI-152.000 VA-PI-155.000 VA-PI-156.000	MVP-RA-153-1458	19.9	20.3	0.40	This will reduce the number of Pi's needed and this route will miss the structure.
VA-PI-150.000 VA-PI-151.000 VA-PI-152.000 VA-PI-153.000.ABU VA-PI-154.000.ABU VA-PI-160.000	MVP-RR-218-2110	19.9	20.4	0.50	Preferred by the landowner. He had no issues with us co-locating but stressed that he did not want us to go through the center of his pasture. There is ~75' between the Williams line and the garage on tract VA-PI-153.000.ABU
VA-PI-160.000	MVP-RR-257-1433	20.45	-	-	Adjusted access road TA-PI-052 to avoid sensitive resource area
VA-PI-160.000 VA-PI-161.000 VA-PI-162.000 VA-PI-163.000	MVP-RA-155-1441	20.5	21.2	0.70	Adjusted CL to be next to existing ROW
VA-PI-164.100.AR VA-PI-164.000.ABU	MVP-RA-218-1737	21.2	-	-	Removed TA-PI-054
VA-PI-163.000 VA-PI-165.000	MVP-RA-155-1446	21.35	21.65	0.30	Adjusted CL to be next to existing ROW

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-171.000 VA-PI-172.000 VA-PI-173.000	MVP-RA-155-1449	22.15	22.75	0.60	Adjusted CL to be next to existing ROW
VA-PI-173.000	MVP-RA-249-1429	22.35	-	-	Removed ATWS 1172
VA-PI-173.000	MVP-RA-249-1444	22.35	-	-	Removed TA-PI-056
VA-PI-173.000	MVP-RA-249-1437	22.45	-	-	ATWS 1174 Removed
VA-PI-173.000	MVP-RA-249-1447	22.45	-	-	TA-PI-057 Removed
VA-PI-166.100.AR VA-PI-166.200.AR VA-PI-173.000 VA-PI-173.100.AR	MVP-RA-249-1450	22.6	-	-	TA-PI-058 Removed
VA-PI-173.000	MVP-RA-249-1454	22.7	-	-	TA-PI-060 Removed
VA-PI-174.000 VA-PI-175.000	MVP-RA-177-1447	23.1	23.7	0.60	Adjusted CL to be next to existing ROW
VA-PI-178.000	MVP-RA-177-1449	24.4	24.7	0.30	Adjusted CL to be next to existing ROW
NC-RO-002.000	MVP-RA-157-1313	26.25	26.45	0.20	Adjusted CL to be next to existing ROW
NC-RO-005.000 NC-RO-006.000	MVP-RR-269-1541	27	28.3	1.30	Adjusted CL to avoid sensitive resource area and for LN3600
NC-RO-005.000 NC-RO-006.000	MVP-RR-270-1244	27.4	-	-	Added access road
NC-RO-006.000 NC-RO-006.001.CS2	MVP-RR-257-1435	28.1	-	-	Extended access road PA-RO-000 to public road
NC-RO-006.000	MVP-RA-153-1309	28.3	-	-	Moved the ATWS to stay out of large wetland
NC-RO-007.000	MVP-RA-159-1655	29.3	29.65	0.35	There is side hill construction in this area, adjust CL to be on top of the hill
NC-RO-011.000 NC-RO-012.000.WBC NC-RO-013.000 NC-RO-014.000 NC-RO-015.000 NC-RO-016.000 NC-RO-018.000.ABU NC-RO-019.000	MVP-RR-269-1549	29.9	30.55	0.65	Adjusted CL for HDD profile and T15 location

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-011.000	MVP-RR-270-1247	29.9	-	-	Added ATWS for equipment and mats
NC-RO-011.000	MVP-RR-270-1248	29.9	-	-	Added ATWS for HDD area
NC-RO-011.000	MVP-RR-270-1250	29.9	-	-	Added ATWS for truck turning
NC-RO-011.000	MVP-RR-270-1251	29.9	-	-	Adjusted where the access road route
NC-RO-014.000	MVP-RR-228-1322	30.3	-	-	ATWS for Hydro test
NC-RO-022.000 NC-RO-025.000	MVP-RR-257-1438	30.75	31.15	0.40	Adjusted route to avoid red tract and 2 large stream crossings
NC-RO-025.000 NC-RO-027.000 NC-RO-029.000	MVP-RA-159-1700	31.2	31.4	0.20	Adjusted CL to reduce the amount of stream impact and to avoid side hill construction
NC-RO-025.900.AR NC-RO-025.850.ABU NC-RO-025.800.ABU NC-RO-025.700.AR NC-RO-025.650.ABU NC-RO-025.600.AR NC-RO-025.500.AR NC-RO-025.400.AR NC-RO-025.300.AR NC-RO-025.200.AR NC-RO-025.100.AR NC-RO-026.000.ABU NC-RO-025.000	MVP-RA-219-1902	31.2	-	-	Removed access road TA-RO-083
NC-RO-029.000 NC-RO-030.000	MVP-RA-179-1146	31.4	31.6	0.20	Adjusted CL to stay away from sensitive resource area and bring the PI closer to the top of the hill
NC-RO-033.000 NC-RO-034.000	MVP-RA-159-1706	31.6	31.9	0.30	Adjusted CL to avoid side hill and multiple ravines
NC-RO-035.000 NC-RO-037.000	MVP-RA-159-1717	32	32.15	0.15	Adjusted CL to avoid side hill construction
NC-RO-038.000	MVP-RR-257-1441	32.35	32.55	0.20	Adjusted route to co-locate with existing pipeline
NC-RO-047.000 NC-RO-048.000 NC-RO-049.000 NC-RO-050.000 NC-RO-051.000 NC-RO-052.000 NC-RO-053.000 NC-RO-054.000 NC-RO-055.000 NC-RO-056.000 NC-RO-057.000	MVP-RA-162-1521	34.2	35.35	1.15	Adjusted CL to avoid side hill construction, baptism area around MP 34.6 and sensitive resource area around MP 34.9

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-054.000 NC-RO-056.000 NC-RO-057.000	MVP-RR-193-1030	34.95	35.35	0.40	Adjusted CL to avoid multiple stream crossings and side hill construction
NC-RO-058.000 NC-RO-060.000 NC-RO-061.000	MVP-RA-162-1535	35.9	36.35	0.45	Adjusted CL to avoid side hill construction and to stay off "NO" tract
NC-RO-060.000 NC-RO-061.000	MVP-RA-228-1520	36	36	0.00	Removed ATWS 1304 because it is in a ravine.
NC-RO-060.000	MVP-RA-242-1543	36	-	-	Trimmed the work space out of the corner to stay off red tract
NC-RO-077.000 NC-RO-081.000 NC-RO-080.000	MVP-RR-242-1509	37.6	37.85	0.25	Adjusted route to avoid red tract
NC-RO-084.000 NC-RO-085.000 NC-RO-086.000 NC-RO-087.000 NC-RO-088.000 NC-RO-089.000 NC-RO-090.000	MVP-RA-143-1533	38	38.8	0.80	Avoided Side Hill Construction
NC-RO-085.000	MVP-RA-230-1251	38.1	-	-	Changed ATWS 1328 to 240' x 90' to fit inside survey corridor
NC-RO-091.000	MVP-RA-230-1254	38.85	-	-	Change ATWS 1337 to 90' x 110' to fit inside survey corridor
NC-RO-091.000 NC-RO-092.000 NC-RO-094.000	MVP-RA-162-1541	39	39.35	0.35	Adjusted CL to avoid side hill construction
NC-RO-092.000 NC-RO-094.000 NC-RO-095.000	MVP-RR-193-1501	39.2	39.6	0.40	Adjusted CL to bring the CL up the hill a little bit more and to get the WS out of the wetland/pond area
NC-RO-100.000 NC-RO-101.000	MVP-RA-163-1116	40	40.2	0.20	Adjusted CL to stay away from washout ditch
NC-RO-101.000	MVP-RA-230-1302	40.15	-	-	Change ATWS 1350 to 90' x 110' to fit inside survey corridor
NC-RO-101.000	MVP-RA-230-1305	40.2	-	-	Changed ATWS 1352 to 90' x 110' to fit inside survey corridor
NC-RO-106.000	MVP-RA-230-1308	40.5	-	-	Changed ATWS 1355 to 90' Wide to fit inside survey corridor
NC-RO-108.000	MVP-RA-230-1311	40.6	-	-	Changed ATWS 1357 to 90' Wide to fit inside survey corridor
NC-RO-109.000	MVP-RA-153-1317	40.7	40.9	0.20	Adjusted CL to avoid side hill construction
NC-RO-111.000	MVP-VRR-270-1253	41.4	-	-	Extended access road to public road

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-111.000 NC-RO-111.000.RC NC-RO-112.000	MVP-RA-193-1511	41.45	41.8	0.35	Adjusted CL to straighten out the route and reduce the number of PIs needed
NC-RO-111.000 NC-RO-112.000	MVP-RR-249-1522	41.55	41.75	0.20	Adjusted CL to be able to bore Hwy 29
NC-RO-112.000	MVP-RA-153-1320	41.6	41.8	0.20	Straighten out this road crossing to follow the power lines.
NC-RO-111.000 NC-RO-112.000	MVP-RR-249-1517	41.65	-	-	ATWS for bore
NC-RO-112.000	MVP-RA-157-1325	41.9	42.2	0.30	Adjusted CL to stay away from small cemetery.
NC-RO-112.200 NC-RO-112.300 NC-RO-112.400 NC-RO-117.000	MVP-RR-162-1547	42.3	43	0.70	Adjusted CL to avoid AT&T tower
NC-RO-117.000 NC-RO-118.000.ABU NC-RO-122.000	MVP-RR-177-1515	42.5	43.4	0.90	Adjusted CL to stay away from large cemetery
NC-RO-122.000	MVP-RA-230-1313	43.4	-	-	Changed ATWS 1391 to 90' x 110' to fit inside survey corridor
NC-RO-122.100	MVP-RA-230-1315	43.45	-	-	Changed ATWS 1392 to 75' x 260' to fit inside survey corridor
NC-RO-133.200	MVP-RA-230-1317	43.8	-	-	Changed ATWS 1396 to 90' x 110' to fit inside survey corridor
NC-RO-133.000	MVP-RA-230-1320	44.1	-	-	Changed ATWS 1403 to 90' x 110' to fit inside survey corridor
NC-RO-138.000	MVP-RA-230-1322	44.8	-	-	Changed ATWS 1408 to 60' x 220' to fit inside survey corridor
NC-RO-140.000 NC-RO-142.000	MVP-RA-153-1324	45.45	45.75	0.30	CL adjustment to route around pasture.
NC-RO-148.505.AR NC-RO-148.510.AR	MVP-RR-254-1405	46.75	-	-	Adjusted TA-RO-129 CL to MDS CL points of existing road and change the start of the access road off Frank Rd to follow existing gravel path
NC-RO-149.000	MVP-RA-230-1324	47.05	-	-	Changed ATWS 1429 to 90' x 230' to fit inside survey corridor
NC-RO-153.000	MVP-RA-153-1329	47.3	47.5	0.20	Straighten out to reduce the number of PIs
NC-RO-154.000	MVP-RR-257-1443	47.3	-	-	Extended access road TA-RO-130 to public road
NC-RO-154.000	MVP-RA-153-1333	47.6	47.7	0.10	Straighten out to reduce the number of PIs

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-154.000	MVP-RA-230-1327	47.6	-	-	Changed ATWS 1437 to 90' Wide to fit inside survey corridor
NC-RO-156.000	MVP-RA-153-1338	48	48.1	0.10	Straighten out to reduce the number of PIs
NC-RO-156.000	MVP-RA-193-1529	48	48.1	0.10	Adjusted CL to keep CL on top of hill
NC-RO-162.000	MVP-RA-230-1329	48.7	-	-	Changed ATWS 1449 to 90' Wide to fit inside survey corridor
NC-RO-165.000	MVP-RA-253-1620	49.2	-	-	Adjusted TA-RO-135 CL to MDS CL points of existing road and round turns
NC-RO-171.000 NC-RO-171.100.AR	MVP-RA-242-1439	49.8	-	-	Removed access road TA-RO-138, runs through land owner's car port and past house. The access road is approx. 855 feet and the nearest road crossing is approx. 1330 feet.
NC-RO-170.000 NC-RO-171.100.AR	MVP-RR-257-1446	49.8	-	-	Adjusted access road TA-RO-138 to avoid going under car port
NC-RO-181.000	MVP-RA-253-1624	51.4	-	-	Adjusted TA-RO-140 CL to MDS CL points of existing road and round turns
NC-RO-181.000	MVP-RA-253-1626	51.6	-	-	Adjusted TA-RO-141 CL to MDS CL points of existing road and round turns
NC-RO-183.000	MVP-RA-253-1628	51.7	-	-	Adjusted TA-RO-142 CL to MDS CL points of existing road and round turns
NC-RO-186.000	MVP-RA-230-1331	52.55	-	-	Changed ATWS 1477 to 90' x 110' to fit inside survey corridor
NC-RO-186.000	MVP-RA-230-1333	52.6	-	-	Changed ATWS 1478 to 90' x 110' to fit inside survey corridor
NC-AL-000.005	MVP-RA-230-1335	52.6	-	-	Change ATWS 1479 to 90' x 110' to fit inside survey corridor
NC-RO-186.000	MVP-RR-257-1448	52.6	-	-	Changed access road TA-TO-146 to go from public road to TWS
NC-AL-000.065	MVP-RA-250-1321	53.5	-	-	Trimmed this section of TA-AL-152
NC-AL-008.000 NC-AL-009.000	MVP-RR-165-1051	54.85	55.1	0.25	Adjusted CL to avoid pond / swamp area
NC-AL-015.000 NC-AL-016.000 NC-AL-017.000.ABU NC-AL-018.000	MVP-RA-206-1431	55.3	-	-	Removed - There is enough ATWS at the PI (ATWS 1509) that this ATWS is not needed.
NC-AL-010.000 NC-AL-018.000	MVP-RA-230-1340	55.3	-	-	Changed ATWS 1509 to 75' x 230' to fit inside survey corridor

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-018.000 NC-AL-019.000 NC-AL-021.000 NC-AL-022.000 NC-AL-023.000 NC-AL-024.000 NC-AL-025.000 NC-AL-025.100.AR NC-AL-027.000	MVP-RA-153-1347	55.5	56.35	0.85	Adjusted CL to reduce the number of PIs and to reduce the amount of tree clearing needed
NC-AL-018.000	MVP-RR-270-1255	55.6	-	-	Adjusted access road to be on existing path
NC-AL-028.000	MVP-RA-153-1356	56.4	-	-	Moved ATWS to the road crossing because the ATWS at MP 56.7 is on top of a pond
NC-AL-028.000 NC-AL-033.000	MVP-RR-257-1513	56.8	-	-	Added access road
NC-AL-035.000.ABU NC-AL-036.000	MVP-RA-242-1409	56.9	-	-	Removed access road TA-AL-160 runs on top of land owner's septic and in between their crop fields. The access road is approx. 2000 feet and the nearest road crossing is approx. 2740 feet.
NC-AL-033.000	MVP-RR-257-1515	56.9	-	-	Added access road
NC-AL-042.000 NC-AL-043.000	MVP-RA-186-1423	57.35	57.75	0.40	LiDAR suggests that the PI is in the pond. This adjustment is to avoid the pond
NC-AL-043.000	MVP-RR-257-1517	57.75	-	-	Extended access road TA-AL-161 to public road
NC-AL-051.000	MVP-RA-231-0828	58.6	-	-	Changed ATWS 1543 to 90' x 110' to fit inside survey corridor
NC-AL-054.000 NC-AL-058.000	MVP-RA-228-1324	59.1	59.2	0.10	Extended PIs out of the road ROW
NC-AL-075.000	MVP-RA-231-0832	60.7	-	-	Change ATWS 1559 to 90' x 110' to fit inside survey corridor
NC-AL-076.100.AR NC-AL-076.200.AR NC-AL-076.400.AR NC-AL-076.500.AR NC-AL-076.000 NC-AL-074.450.AR NC-AL-076.000 NC-AL-074.100.AR NC-AL-074.000	MVP-RA-172-0945	60.8	-	-	The landowner walked with the civil crew to show them where he wants the access road to be.
NC-AL-076.100.AR NC-AL-076.000 NC-AL-074.450.AR NC-AL-074.000	MVP-RA-153-1402	60.9	-	-	This property owner has an existing access road to the backfield that has been logged and cleared.
NC-AL-103.000 NC-AL-104.000 NC-AL-106.000	MVP-RR-240-1812	61	67.5	6.50	Mystic Valley Farm re-route

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-128.000 NC-AL-134.000 NC-AL-135.000 MVF-NC-AL-001.000 MVF-NC-AL-002.000 MVF-NC-AL-003.000 MVF-NC-AL-004.000 MVF-NC-AL-005.000 MVF-NC-AL-006.000 MVF-NC-AL-007.000 MVF-NC-AL-010.000 NC-AL-110.000.RC MVF-NC-AL-011.000 MVF-NC-AL-012.000.ABU MVF-NC-AL-013.000 MVF-NC-AL-016.000 MVF-NC-AL-017.000 NC-AL-120.000 NC-AL-119.000 FA34-AL-001.000 FA3-AL-002.000 FA3-AL-003.000 FA3-AL-005.000 FA3-AL-006.000 FA3-AL-007.000 FA3-AL-008.000 FA3-AL-009.000 FA3-AL-010.000					
NC-AL-085.000 NC-AL-086.000	MVP-RR-165-0832	62.25	62.5	0.25	The land owner mentioned that in the field of tract NC-AL-085.000 they would like to put a sub-division in the future
NC-AL-086.000	MVP-RA-231-0841	62.65	-	-	Changed ATWS 1573 to 90' x 110' to fit inside survey corridor
NC-AL-089.000 NC-AL-088.000.ABU	MVP-RA-231-0844	62.8	-	-	Changed ATWS 1575 to 90' x 330 to fit inside survey corridor
NC-AL-093.000	MVP-RA-231-0846	63	-	-	Changed ATWS 1577 to 90' x 110' to fit inside survey corridor
NC-AL-096.000 NC-AL-097.000 NC-AL-098.000	MVP-RA-143-1534	63.1	63.5	0.40	Extended PI out of creek
NC-AL-101.000.ABU NC-AL-102.000.ABU	MVP-RA-231-0848	63.45	-	-	Changed ATWS 1582 to 90' x 230' to fit inside survey corridor
NC-AL-102.000.ABU	MVP-RA-231-0852	63.5	-	-	Changed ATWS 1583 to 90' x 330' to fit inside survey corridor
NC-AL-103.000	MVP-RR-206-1421	63.7	-	-	This is an alternate access to TA-AL-172 and TA-AL-173 access roads.
NC-AL-103.000 NC-AL-103.100.AR	MVP-RA-250-1017	63.7	-	-	Trimmed TA-AL-172 to remove the section behind the house

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-103.000	MVP-RA-250-1019	64	-	-	Removed TA-AL-173
NC-AL-119.000 NC-AL-120.000	MVP-RA-247-1539	65.6	-	-	Mystic Valley Farm Access road 1
NC-AL-120.000	MVP-RA-231-0855	65.8	-	-	Changed ATWS 1605 to 90' x 110' to fit inside survey corridor
NC-AL-121.000.ABU NC-AL-122.000	MVP-RA-231-0858	65.9	-	-	Change ATWS 1607 to 90' Wide to fit inside survey corridor
NC-AL-128.000	MVP-RA-247-1557	66.75	-	-	Mystic Valley Farm Access road 4
NC-AL-132.100.AR NC-AL-133.000 NC-AL-128.000 NC-AL-133.000	MVP-RA-247-1551	67.25	-	-	Mystic Valley Farm Access road 2
NC-AL-138.000 NC-AL-139.000 NC-AL-140.000 NC-AL-141.000 NC-AL-142.000	MVP-RR-186-1407	67.9	68.2	0.30	The LiDAR information suggests that the end of the pond is in the perm. ROW. This adjustment is to stay away from the pond
NC-AL-143.000	MVP-RA-231-0901	68.3	-	-	Changed ATWS 1629 to 90' Wide to fit inside survey corridor
NC-AL-143.000	MVP-RR-270-1257	68.3	-	-	Added perm. access road because Indian Village Trail is a private road
NC-AL-143.000	MVP-RA-231-0903	68.35	-	-	Changed ATWS 1631 to 90' x 110' to fit inside survey corridor
NC-AL-143.000	MVP-RA-231-0907	68.4	-	-	Changed ATWS 1632 to 90' x 110' to fit inside survey corridor
NC-AL-143.000	MVP-RA-231-0928	68.45	-	-	Changed ATWS 1634 to 90' x 110' to fit inside survey corridor
NC-AL-148.000	MVP-RA-231-0930	68.7	-	-	Changed ATWS 1639 to 90' x 165' to fit inside survey corridor
NC-AL-148.000	MVP-RA-231-0933	68.8	-	-	Changed ATWS 1641 to 90' x 110' to fit inside survey corridor
NC-AL-148.000	MVP-RA-231-0937	68.85	-	-	Changed ATWS 1643 to 90' x 140' to fit inside survey corridor
NC-AL-148.000 NC-AL-149.000	MVP-RA-231-0939	68.95	-	-	Changed ATWS 1646 to 85' x 220' to fit inside survey corridor
NC-AL-149.000 NC-AL-150.000 NC-AL-151.000	MVP-RA-228-1327	69	69.1	0.10	Straighten out and move PI out of road ROW

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-169.000.ABU NC-AL-170.000.ABU NC-AL-176.000.ABU NC-AL-179.000.ABU NC-AL-180.000.ABU NC-AL-181.000.ABU NC-AL-183.000 NC-AL-184.000	MVP-RR-221-0832	69.5	69.9	0.40	Less impact for this route. Shorter distance, less fittings, less pipe, lessen foreign utility impact, less overhead utility relocation.
NC-AL-182.000 NC-AL-182.100.ABU NC-AL-184.000	MVP-RA-156-1740	69.8	69.95	0.15	Adjusted CL to avoid abandoned building and to stay away from steep hill side
NC-AL-184.000	MVP-RA-231-0941	69.9	-	-	Changed ATWS 1659 to 90' x 110' to fit inside survey corridor
NC-AL-186.000 NC-AL-188.000	MVP-RA-219-1820	70.35	70.7	0.35	Proposed a couple minor shifts of centerline to account for side-hill terrain
NC-AL-191.000	MVP-RA-231-0943	70.9	-	-	Changed ATWS 1670 to 90' wide to fit inside survey corridor
NC-AL-191.000	MVP-RA-231-0945	71	-	-	Changed ATWS 1672 to 90' Wide to fit inside survey corridor
NC-AL-191.000	MVP-RA-231-0947	71.05	-	-	Changed ATWS 1675 to 90' x 110' to fit inside survey corridor
NC-AL-191.000	MVP-RA-231-0948	71.3	-	-	Changed ATWS 1676 to 80' x 280' to fit inside survey corridor
NC-AL-192.000	MVP-RR-270-1300	71.55	-	-	Extended access road to a public road
NC-AL-192.000 NC-AL-193.000	MVP-RA-231-0950	71.8	-	-	Changed ATWS 1680 to 90' x 230' to fit inside survey corridor
NC-AL-193.000 NC-AL-194.000	MVP-RA-231-0952	71.9	-	-	Changed ATWS 1681 to 90' x 260' to fit inside survey corridor
NC-AL-199.000 NC-AL-200.000 NC-AL-201.000	MVP-RA-198-1549	72.4	72.7	0.30	According to the LiDAR info, there is side hill construction in this area (~32.5%, ~18 deg.) Adjust the CL to avoid the side hill construction
NC-AL-210.000	MVP-RR-270-1302	73.1	-	-	Added perm. access road for T21
NC-AL-210.000	MVP-RR-270-1303	73.1	-	-	Changed location of T21 Site
VA-PI-001.100 VA-PI-001.300	MVP-VRR-296-1307	0	-	-	Add new access road to be on private drive but keep the old one. Both will be permanent access roads
VA-PI-001.300.AR VA-PI-001.100.AR	MVP-VRA-339-1526	0	-	-	Add flare to PA-PI-001A
VA-PI-002.000	MVP-VRR-043-1447	0	-	-	Change layout of Lambert CS
VA-PI-002.000	MVP-RA-292-1124	0.1	-	-	Edit ATWS 1001F to stay a minimum of 50 feet from the wetland/waterbody

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-006.000 VA-PI-008.000	MVP-VRA-053-1723	1	-	-	Add TWS wetland W-G18-2 enters limit of Disturbance ("LOD") at approx 73 feet
VA-PI-009.000	MVP-VRA-353-1542	1.2	-	-	Add space for turning to TA-PI-003
VA-PI-008.300 VA-PI-009.000	MVP-VRA-353-1540	1.2	-	-	Add space for turning to TA-PI-003
VA-PI-008.100.AR	MVP-VRA-339-1530	1.2	-	-	Add flare to TA-PI-003
VA-PI-009.000	MVP-VRA-028-1433	1.2	-	-	Edit ATWS 1018 because of adjusting access road to be on existing path
VA-PI-009.000	MVP-VRA-292-1128	1.3	-	-	Extend ATWS 1020 by 75 feet because of the removal of ATWS 1021 in large wetland
VA-PI-008.000 VA-PI-008.100.AR VA-PI-009.000 VA-PI-008.200.AR VA-PI-008.300.AR	MVP-RA-253-1407	1.5	-	-	Adjusted TA-PI-003 CL to MDS CL points of existing road and round turns
VA-PI-010.000	MVP-VRA-351-0913	1.6	-	-	Add turning to TA-PI-004
VA-PI-010.000	MVP-VRA-340-0926	1.6	-	-	Add to TA-PI-004 for turning
VA-PI-010.000	MVP-VRR-310-1607	1.6	-	-	Extend TA-PI-004 to a public road
VA-PI-010.000	MVP-VRA-351-0911	1.6	-	-	Add turning to TA-PI-004
VA-PI-010.000	MVP-VRA-031-1108	1.6	-	-	Edit ATWS 1022 because of adjusting access road to be on existing path
VA-PI-010.000	MVP-VRA-292-1132	1.6	-	-	Delete ATWS 1021 because it is in a large wetland
VA-PI-012.000	MVP-VRA-292-1135	2.1	-	-	Delete ATWS 1025 because is it in a large wetland
VA-PI-012.000 VA-PI-014.000	MVP-VRR-351-0915	2.3	-	-	Extend TA-PI-005 to public road Fairview Rd
VA-PI-012.000	MVP-VRA-340-0929	2.3	-	-	Add to TA-PI-005 for turning
VA-PI-012.000	MVP-VRA-292-1137	2.3	-	-	Extend ATWS 1025A to tree line because of the removal of ATWS 1025 in large wetland
VA-PI-014.000	MVP-VRA-028-1435	2.8	-	-	Trim ATWS to stay off of driveway
VA-PI-023.000	MVP-VRA-339-1532	3.4	-	-	Add flare to TA-PI-006
VA-PI-022.000	MVP-RA-292-1139	3.6	-	-	Edit ATWS 1036 to stay a minimum of 50 ft from the wetland/waterbody
VA-PI-024.000 VA-PI-025.000	MVP-VRA-353-1445	3.7	3.95	0.25	The landowner requested that the centerline is exactly to the property corner and then run the

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
					length of the property line until it is off the property
VA-PI-033.000	MVP-VRA-339-1537	4.55	-	-	Add to TA-PI-007 for turning
VA-PI-033.100.AR	MVP-VRA-339-1535	4.55	-	-	Add to TA-PI-007 for turning
VA-PI-032.000	MVP-VRA-028-1437	4.7	-	-	Edit ATWS 1048 because of adjusting access road to be on existing path
VA-PI-032.000	MVP-VRA-339-1554	4.8	-	-	Add Flare to TA-PI-009
VA-PI-032.000 VA-PI-032.100.AR	MVP-RA-253-1420	5.05	-	-	Adjusted TA-PI-009 CL to MDS CL points of existing road and round turns
VA-PI-034.100.AR VA-PI-034.200.AR	MVP-VRA-277-0858	5.1	-	-	Extend access road TA-PI-011 to Hwy 29
-	MVP-VRA-339-1557	5.1	-	-	Add flare to TA-PI-011
VA-PI-036.000	MVP-VRA-028-1439	5.9	-	-	Edit ATWS 1056 because of adjusting access road to be on existing path
VA-PI-036.000	MVP-RA-253-1609	6	-	-	Adjusted TA-PI-015 CL to MDS CL points of existing road and round turns
VA-PI-036.000	MVP-VRA-043-1335	6	-	-	Add TWS because the environmental feature was removed by the state
VA-PI-037.000	MVP-VRA-339-1559	6.2	-	-	Add flare to TA-PI-017
VA-PI-036.000	MVP-VRA-043-1343	6.2	-	-	Add TWS because the environmental feature was removed by the state
VA-PI-037.000	MVP-VRA-028-1440	6.2	-	-	Edit ATWS 1061 because of adjusting access road to be on existing path
VA-PI-039.000	MVP-VRA-339-1603	6.85	-	-	Add flare to TA-PI-018
VA-PI-038.000 VA-PI-038.100.AR VA-PI-039.000	MVP-RA-253-1614	7.05	-	-	Adjusted TA-PI-018 CL to MDS CL points of existing road and round turns
VA-PI-047.000	MVP-VRA-339-1613	8.2	-	-	Add flare to TA-PI-021
VA-PI-047.000	MVP-RA-253-1616	8.4	-	-	Adjusted TA-PI-021 CL to MDS CL points of existing road and round turns
VA-PI-047.000 VA-PI-048.000	MVP-VRR-253-1618	8.65	-	-	Adjusted TA-PI-022 CL to MDS CL points of existing road and round turns
VA-PI-050.000	MVP-VRA-028-1441	8.9	-	-	Edit ATWS 1082 because of adjusting access road to be on existing path
VA-PI-051.000	MVP-VRA-339-1614	8.95	-	-	Add flare to TA-PI-023
VA-PI-051.000	MVP-VRA-282-1127	9	-	-	Add ATWS

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-052.000	MVP-VRA-339-1617	9.1	-	-	Add flare to TA-PI-024
VA-PI-052.000	MVP-VRA-028-1442	9.3	-	-	Edit ATWS 1085 because of adjusting access road to be on existing path
VA-PI-053.000	MVP-VRA-353-1543	9.6	-	-	Add space for turning to TA-PI-025
VA-PI-053.000	MVP-VRA-353-1545	9.6	-	-	Add space for turning to TA-PI-025
VA-PI-053.000	MVP-VRA-353-1547	9.6	-	-	Add space for turning to TA-PI-025
VA-PI-053.000	MVP-VRA-339-1618	9.6	-	-	Add flare to TA-PI-025
VA-PI-060.000	MVP-VRA-332-1532	10.3	-	-	Trim TWS to stay off of VA-PI-060.000
VA-PI-061.000 VA-PI-056.000.RC	MVP-VRA-339-1622	10.35	-	-	Add flare to TA-PI-026B
VA-PI-075.000	MVP-VRA-339-1626	11.1	-	-	Add flare to TA-PI-027
VA-PI-082.000	MVP-VRA-339-1630	12.4	-	-	Add flare to PA-PI-029
VA-PI-081.000	MVP-VRA-332-1652	12.4	-	-	Trim ATWS to stay off of VA-PI-081.000
VA-PI-084.000 VA-PI-085.000	MVP-RA-254-1532	13.15	-	-	Adjusted TA-PI-032 CL to MDS CL points of existing road and round turns
-	MVP-VRA-339-1631	13.2	-	-	Add flare to TA-PI-033
VA-PI-084.000 VA-PI-087.000	MVP-VRA-028-1444	13.35	-	-	Edit ATWS 1112 because of adjusting access road to be on existing path
-	MVP-VRA-339-1633	13.65	-	-	Add flare to TA-PI-034
VA-PI-090.000 VA-PI-091.000	MVP-VRR-052-1359	13.7	-	-	Move AR over to avoid wetlands and limit tree clearing
-	MVP-VRA-339-1634	14.15	-	-	Add flare to TA-PI-035
VA-PI-099.000 VA-PI-099.100	MVP-VRA-028-1445	14.9	-	-	Edit ATWS 1120 because of adjusting access road to be on existing path
VA-PI-096.000.RC	MVP-VRA-339-1636	15.2	-	-	Add flare to TA-PI-037
VA-PI-102.100	MVP-VRA-353-1554	15.8	-	-	Add space for turning to TA-PI-038
VA-PI-102.000	MVP-VRA-353-1553	15.8	-	-	Add space for turning to TA-PI-038
VA-PI-102.000	MVP-VRA-353-1551	15.8	-	-	Add space for turning to TA-PI-038

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-102.000	MVP-VRA-339-1638	15.8	-	-	Add flare to TA-PI-038
VA-PI-104.000	MVP-VRA-332-1535	15.9	-	-	Trim TWS to stay off of garage
VA-PI-104.100 VA-PI-103.000.RC	MVP-VRA-339-1639	16	-	-	Add flare to TA-PI-039
VA-PI-104.100 VA-PI-106.000	MVP-VRA-028-1446	16	-	-	Edit ATWS 1126 because of adjusting access road to be on existing path
VA-PI-116.000.ABU	MVP-VRA-339-1640	16.7	-	-	Add flare to TA-PI-041
VA-PI-115.000	MVP-VRA-339-1643	16.7	-	-	Add flare to TA-PI-042
VA-PI-115.200	MVP-VRA-052-1404	17.1	-	-	Move TA-PI-043 over to avoid W-F18-46
-	MVP-VRA-339-1644	17.2	-	-	Add flare to TA-PI-043
VA-PI-119.000 VA-PI-119.100	MVP-VRA-339-1714	17.5	-	-	Remove access road TA-PI-045
VA-PI-119.000	MVP-VRA-339-1646	17.5	-	-	Add flare to TA-PI-045
VA-PI-121.000 VA-PI-121.000.RC	MVP-VRA-339-1647	18	-	-	Add flare to TA-PI-046
VA-PI-129.000.RC VA-PI-125.000	MVP-VRA-344-1526	18.65	-	-	Extend TA-PI-048 to a public road
VA-PI-125.000 VA-PI-128.000	MVP-VRA-344-1612	18.65	-	-	Add to TA-PI-048 for turning
VA-PI-128.001 VA-PI-130.000	MVP-VRA-022-1101	19	-	-	Trim ATWS 1146 off of VA-PI-128.001
VA-PI-143.000.RC	MVP-VRA-339-1654	19.5	-	-	Add flare to TA-PI-049
VA-PI-150.100 VA-PI-151.000.RC	MVP-VRA-339-1656	19.8	-	-	Add flare to TA-PI-050
VA-PI-149.000 VA-PI-150.000	MVP-RA-292-1145	19.8	-	-	Edit ATWS 1149 to stay a minimum of 50 ft from the wetland/waterbody
VA-PI-154.000.ABU	MVP-VRR-275-1245	20.2	-	-	Add access road because Hyler Farm Ln becomes a private road approx. 60 feet from the edge of TWS
VA-PI-154.200	MVP-VRA-285-1631	20.25	-	-	Trim out TWS to have a 11' buffer around mobile home
VA-PI-160.000	MVP-VRA-339-1658	20.45	-	-	Add flare to TA-PI-052
VA-PI-160.000	MVP-VRR-052-1406	20.6	-	-	Move TA-PI-052 over closer to pond to use culvert and follow existing path then follow current AR route to avoid cemetery

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-160.000	MVP-VRA-052-1408	20.6	-	-	Shift TA-PI-052 over to avoid W-F18-54
VA-PI-162.000 VA-PI-163.000	MVP-VRA-313-1017	21.1	-	-	Rotate ground bed to parallel property line and to keep it on one land owner
VA-PI-165.000	MVP-VRA-028-1456	21.6	-	-	Edit ATWS 1168 because of adjusting access road to be on existing path
VA-PI-165.000	MVP-VRA-339-1701	21.65	-	-	Add flare to TA-PI-055
VA-PI-169.000	MVP-VRA-298-1122	21.9	-	-	Trim out TWS to stay out of pond
VA-PI-172.000	MVP-VRA-339-1705	23	-	-	Add flare to TA-PI-061
VA-PI-178.000	MVP-VRA-053-1732	23.9	-	-	Add TWS stream S-E18-34 only enters LOD at approx 60 feet
VA-PI-178.100	MVP-VRA-052-1410	24	-	-	Shift TA-PI-063 or avoid wetland W-E18-31
VA-PI-178.100	MVP-VRA-339-1707	24.05	-	-	Add flare to TA-PI-063
VA-PI-178.000	MVP-VRA-339-1708	24.6	-	-	Add flare to TA-PI-064
VA-PI-180.000	MVP-VRA-339-1719	24.8	-	-	Add to TA-PI-066 for turning
VA-PI-180.000	MVP-VRA-339-1710	24.8	-	-	Add flare to TA-PI-066
VA-PI-180.000	MVP-VRA-339-1720	25.05	-	-	Add to TA-PI-067 for turning
NC-RO-001.000	MVP-VRA-339-1725	26	-	-	Add to TA-PI-068 for turning
NC-RO-001.000	MVP-VRA-339-1721	26	-	-	Add to TA-PI-068 for turning
NC-RO-001.000	MVP-VRA-340-1038	26.2	-	-	Add flare to TA-RO-070
NC-RO-001.001 NC-RO-004.000	MVP-VRA-031-0947	26.3	-	-	Trim TA-RO-071 to stay off of NC-RO-001.001
NC-RO-004.000 NC-RO-002.000.RC	MVP-VRA-340-1041	26.7	-	-	Add flare to TA-RO-071
NC-RO-004.000.RC NC-RO-005.000	MVP-VRA-340-1047	26.95	-	-	Add to TA-RO-072A for turning
NC-RO-004.000.RC NC-RO-005.000	MVP-VRA-340-1045	26.95	-	-	Add to TA-RO-072A for turning
NC-RO-002.000.RC NC-RO-004.000 NC-RO-005.000	MVP-VRA-340-1043	26.95	-	-	Add flare to TA-RO-072
NC-RO-005.000	MVP-VRA-340-1052	27.15	-	-	Add to TA-RO-073 for turning

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-004.000.RC NC-RO-005.000	MVP-VRA-340-1050	27.15	-	-	Add to TA-RO-073 for turning
NC-RO-005.000	MVP-VRA-028-1458	27.15	-	-	Edit ATWS 1213B because of adjusting access road to be on existing path
NC-RO-005.000	MVP-RA-292-1151	27.2	-	-	Edit ATWS 1213D to stay a minimum of 50 ft from the wetland/waterbody
NC-RO-005.000	MVP-VRA-025-0826	27.3	-	-	Add TWS and ATWS up to the edge of field
NC-RO-006.000	MVP-VRA-353-1558	27.4	-	-	Add space for turning to TA-RO-073A
NC-RO-006.000	MVP-VRA-340-1054	27.4	-	-	Add flare to TA-RO-073A
NC-RO-006.000	MVP-VRA-340-1056	27.8	-	-	Add to TA-RO-075 for turning
NC-RO-006.000	MVP-VRA-345-1652	28.1	-	-	Combine ATWS 1224A and 1224C
NC-RO-006.001.AR	MVP-VRA-340-1100	28.2	-	-	Add flare to PA-RO-000
NC-RO-006.000	MVP-VRA-037-1332	28.2	-	-	Add perm. ROW to TENNESSEE NATURAL GAS
NC-RO-006.000	MVP-VRA-028-1459	28.3	-	-	Edit ATWS 1230 because of adjusting access road to be on existing path
NC-RO-006.000	MVP-VRA-340-1103	28.6	-	-	Add to TA-RO-076 for turning
NC-RO-006.000	MVP-VRA-340-1101	28.6	-	-	Add to TA-RO-076 for turning
NC-RO-006.000	MVP-VRA-028-1500	28.6	-	-	Edit ATWS 1232 because of adjusting access road to be on existing path
NC-RO-007.000	MVP-VRA-292-1153	29	-	-	Edit ATWS 1237 to stay a minimum of 50 ft from the wetland/waterbody
NC-RO-007.000	MVP-VRA-028-1501	29.15	-	-	Edit ATWS 1239 because of adjusting access road to be on existing path
NC-RO-007.000 NC-RO-007.100.AR	MVP-VRA-340-1105	29.2	-	-	Add flare to TA-RO-078
NC-RO-007.000	MVP-VRR-004-0828	29.3	29.5	0.2	Adjust CL to top of hill to avoid side hill construction
NC-RO-007.000 NC-RO-007.300	MVP-VRA-340-1106	29.6	-	-	Add flare to TA-RO-079
NC-RO-007.000	MVP-RA-292-1154	29.6	-	-	Edit ATWS 1243 to stay a minimum of 50 ft from the wetland/waterbody
NC-RO-011.000	MVP-VRA-340-1108	29.9	-	-	Add flare to TA-RO-080
NC-RO-011.000	MVP-VRA-353-1600	29.9	-	-	Add space for turning to TA-RO-080

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-011.000 NC-RO-012.000.WBC	MVP-VRA-063-1208	29.9	-	-	Add TWS 5 feet wide centered on the CL of easement on top of permanent ROW from HDD exit down to water body 5' corridor centered on the pipe between the edges of the workspace between the entry and exit points.
NC-RO-011.000	MVP-VRA-028-1502	29.9	-	-	Edit ATWS 1247 because of adjusting access road to be on existing path
-	MVP-VRA-340-1109	30.4	-	-	Add flare to TA-RO-081
NC-RO-013.000 NC-RO-014.000 NC-RO-015.000 NC-RO-016.000	MVP-VRA-063-1210	30.4	-	-	Add TWS 5 feet wide centered on the CL of easement on top of permanent ROW from HDD entry down to water body 5' corridor centered on the pipe between the edges of the workspace between the entry and exit points.
NC-RO-015.000 NC-RO-015.000.RC	MVP-VRA-340-1118	30.45	-	-	Add flare to PA-RO-082
NC-RO-022.000	MVP-VRA-289-1356	30.85	-	-	Trim TWS to stay out of environmental buffer. Wait for survey data
NC-RO-022.000 NC-RO-025.000	MVP-VRA-025-0831	30.9	-	-	Trim TWS to make a 75' neck down because of the environmental buffer
NC-RO-025.000	MVP-VRA-014-1555	31.1	-	-	Trim TWS and ATWS to stay outside of environmental buffer
NC-RO-025.000	MVP-VRA-014-1553	31.1	-	-	Trim TWS and ATWS to stay outside of environmental buffer
NC-RO-025.000	MVP-VRA-292-1156	31.1	-	-	Edit TWS and ATWS 1253B to stay a minimum of 50 ft from the wetland/waterbody
NC-RO-025.000	MVP-VRA-014-1548	31.15	-	-	Extend ATWS
NC-RO-030.000.RC NC-RO-033.000	MVP-VRA-340-1121	31.65	-	-	Add flare to TA-RO-084
NC-RO-033.000	MVP-VRA-053-1734	31.7	-	-	Add TWS stream S-B18-120 doesn't enter LOD
NC-RO-033.000	MVP-VRA-015-1411	31.7	-	-	Trim ATWS to stay outside of environmental buffer
NC-RO-025.000	MVP-VRA-025-0835	31.9	-	-	Trim TWS and ATWS to stay outside of environmental buffer
NC-RO-034.000	MVP-VRA-025-0839	31.9	-	-	Trim TWS to stay outside of environmental buffer
NC-RO-037.000	MVP-VRA-025-0841	32.1	-	-	Trim TWS to stay outside of environmental buffer
NC-RO-038.200	MVP-VRA-340-1122	32.4	-	-	Add flare to TA-RO-085
NC-RO-038.000	MVP-VRA-340-1135	32.5	-	-	Add to TA-RO-086 for turning
NC-RO-038.000	MVP-VRA-340-1124	32.5	-	-	Add to TA-RO-086 for turning

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-040.100	MVP-VRA-340-1137	32.8	-	-	Add flare to TA-RO-087
NC-RO-040.000	MVP-VRA-028-1503	32.8	-	-	Edit ATWS 1271 because of adjusting access road to be on existing path
NC-RO-040.000	MVP-RA-292-1159	32.9	-	-	Edit ATWS 1274 to stay a minimum of 50 ft from the wetland/waterbody
NC-RO-040.000	MVP-RA-292-1157	32.9	-	-	Edit ATWS 1273 to stay a minimum of 50 ft from the wetland/waterbody
NC-RO-044.000	MVP-VRA-353-1115	33.6	-	-	Add flare to TA-RO-088
NC-RO-044.000	MVP-VRA-353-1116	33.6	-	-	Adjust TA-RO-088 to stay off of NC-RO-044.100
-	MVP-VRA-340-1139	33.6	-	-	Add flare to TA-RO-088
NC-RO-047.500 NC-RO-047.600	MVP-VRA-340-1141	34.1	-	-	Add flare to TA-RO-089
NC-RO-047.000	MVP-VRA-028-1245	34.2	-	-	Trim TWS to stay 25' away from Duke's tower
NC-RO-047.000	MVP-VRA-353-1428	34.2	34.3	0.1	Adjust Stream and Duke Power crossing
NC-RO-053.000	MVP-VRA-340-1144	34.7	-	-	Add flare to TA-RO-091
NC-RO-057.000	MVP-VRA-028-1247	35.2	-	-	Trim TWS to stay 25' away from Duke's tower
NC-RO-057.000	MVP-VRA-028-1248	35.3	-	-	Trim TWS to stay 25' away from Duke's tower
NC-RO-057.200.AR	MVP-VRA-340-1147	35.4	-	-	Add flare to TA-RO-092
NC-RO-057.000	MVP-VRA-028-1249	35.4	-	-	Trim ATWS to stay 25' away from power pole
-	MVP-VRA-340-1230	35.9	-	-	Add flare to TA-RO-094
NC-RO-061.000 NC-RO-061.000.RC	MVP-VRA-340-1232	36.15	-	-	Add flare to TA-RO-095
NC-RO-067.000 NC-RO-068.000	MVP-VRA-340-1234	36.7	-	-	Add flare to TA-RO-099
NC-RO-069.000	MVP-VRA-340-1236	37.1	-	-	Add flare to TA-RO-100
NC-RO-073.000	MVP-VRA-014-1608	37.25	-	-	Trim TWS to be outside of environmental buffer
-	MVP-VRA-340-1237	37.6	-	-	Add flare to TA-RO-102
NC-RO-081.000	MVP-VRA-025-0842	37.7	-	-	Trim TWS to stay outside of environmental buffer

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-086.000	MVP-VRA-353-1604	38.1	-	-	Add space for turning to TA-RO-103
NC-RO-086.000	MVP-VRA-353-1602	38.1	-	-	Add space for turning to TA-RO-103
NC-RO-086.000	MVP-VRA-340-1239	38.1	-	-	Add flare to TA-RO-103
NC-RO-089.000	MVP-VRA-028-1256	38.6	-	-	Adjust TA-RO-104 to be 25' away from Duke's tower
NC-RO-089.000	MVP-VRA-340-1240	38.6	-	-	Add flare to TA-RO-104
NC-RO-089.000	MVP-VRA-014-1557	38.7	-	-	Trim TWS to stay outside of environmental buffer
NC-RO-090.000	MVP-VRA-014-1559	38.8	-	-	Add ATWS
NC-RO-090.000	MVP-VRA-014-1601	38.8	-	-	Trim ATWS to be outside of environmental buffer
NC-RO-090.000	MVP-VRA-014-1603	38.8	-	-	Trim TWS and ATWS to be outside of environmental buffer
NC-RO-090.000.RC NC-RO-091.000	MVP-VRA-340-1244	38.9	-	-	Add flare to TA-RO-106
NC-RO-091.000	MVP-VRA-028-1504	38.9	-	-	Edit ATWS 1338 because of adjusting access road to be on existing path
NC-RO-091.000	MVP-VRA-028-1505	38.95	-	-	Edit ATWS 1339 because of adjusting access road to be on existing path
NC-RO-094.000 NC-RO-095.000.RC NC-RO-094.200	MVP-VRA-340-1245	39.4	-	-	Add flare to TA-RO-107
NC-RO-095.000	MVP-VRA-028-1258	39.4	-	-	Trim TWS to be 25' away from electric pole
NC-RO-094.000	MVP-VRA-340-1253	39.6	-	-	Add space for turning to TA-RO-108
NC-RO-094.000	MVP-VRA-340-1247	39.6	-	-	Add flare to TA-RO-107
NC-RO-100.200.AR	MVP-VRA-340-1250	39.7	-	-	Add flare to PA-RO-109
NC-RO-101.000	MVP-VRA-028-1301	40.1	-	-	Trim TWS to stay 25' away from electric pole
NC-RO-103.000 NC-RO-103.000.RC	MVP-VRA-285-1633	40.3	-	-	Trim back TWS to have a 11' buffer around the house - 1 story
-	MVP-VRA-340-1255	40.9	-	-	Add flare to TA-RO-111
NC-RO-112.000	MVP-VRA-340-1258	41.8	-	-	Add space for turning to TA-RO-113
NC-RO-112.100	MVP-VRA-340-1256	41.8	-	-	Add flare to PA-RO-113A

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-112.000.RC	MVP-VRA-340-1259	42.4	-	-	Add flare to TA-RO-115
NC-RO-117.000	MVP-VRA-305-1714	42.9	-	-	Trim TWS to make neck down 75'
NC-RO-117.000	MVP-VRA-028-1303	42.95	-	-	Trim TWS to stay 25' away from Duke's tower
NC-RO-117.000	MVP-RA-292-1200	43.1	-	-	Edit TWS and ATWS 1383 to stay a minimum of 50 ft from the wetland/waterbody
NC-RO-121.000	MVP-VRA-340-1300	43.2	-	-	Add flare to TA-RO-115A
NC-RO-122.000	MVP-VRA-289-1359	43.3	-	-	Trim TWS to stay out of environmental buffer
NC-RO-124.000.RC	MVP-VRA-340-1302	43.4	-	-	Add flare to TA-RO-117
NC-RO-124.000.RC NC-RO-122.100	MVP-VRA-340-1304	43.45	-	-	Add flare to TA-RO-118
NC-RO-133.100	MVP-VRA-340-1306	43.9	-	-	Add flare to TA-RO-119
NC-RO-133.200	MVP-VRA-353-1610	43.9	-	-	Add space for turning to TA-RO-119
NC-RO-133.000	MVP-VRA-353-1608	43.9	-	-	Add space for turning to TA-RO-119
NC-RO-133.000	MVP-VRA-353-1611	44.1	-	-	Add space for turning to TA-RO-122
NC-RO-133.000	MVP-VRA-340-1308	44.1	-	-	Add flare to TA-RO-122
NC-RO-138.000.RC	MVP-VRA-340-1310	44.8	-	-	Add flare to TA-RO-124
NC-RO-139.000	MVP-VRA-340-1314	44.95	-	-	Add space for turning to TA-RO-125
NC-RO-139.000	MVP-VRA-340-1315	44.95	-	-	Add space for turning to TA-RO-125
NC-RO-138.000.RC NC-RO-139.000	MVP-VRA-340-1317	45.3	-	-	Add flare to TA-RO-126
NC-RO-140.000 NC-RO-142.000	MVP-VRA-025-0852	45.7	-	-	Trim TWS to stay outside of environmental buffer
NC-RO-142.000	MVP-VRA-025-0844	45.7	-	-	Trim TWS to stay outside of environmental buffer
NC-RO-143.000	MVP-VRA-053-1735	46.4	-	-	Add TWS because stream S-A18-231 only enters LOD at approx 41 feet
NC-RO-148.505	MVP-VRA-340-1436	46.7	-	-	Add space for turning to TA-RO-129
NC-RO-148.510.AR	MVP-VRA-340-1434	46.7	-	-	Add space for turning to TA-RO-129

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-148.510	MVP-VRA-340-1320	46.7	-	-	Add space for turning to TA-RO-129
-	MVP-VRA-340-1437	47.3	-	-	Add flare to TA-RO-130
NC-RO-155.000	MVP-VRA-025-0856	47.7	-	-	Trim TWS to stay outside of environmental buffer
NC-RO-154.000	MVP-VRA-025-0854	47.7	-	-	Trim ATWS to stay outside of environmental buffer
NC-RO-154.000	MVP-RA-292-1202	47.7	-	-	Edit ATWS 1438 to stay a minimum of 50 ft from the wetland/waterbody
-	MVP-VRA-340-1443	48.2	-	-	Add flare to TA-RO-131
NC-RO-160.000	MVP-VRA-353-1612	48.55	-	-	Add space for turning to TA-RO-133
NC-RO-157.000.RC NC-RO-159.000	MVP-VRA-340-1444	48.55	-	-	Add flare to TA-RO-133
NC-RO-162.000.RC	MVP-VRA-340-1446	48.9	-	-	Add flare to TA-RO-134
NC-RO-165.000	MVP-VRA-353-1613	49.2	-	-	Add space for turning to TA-RO-135
NC-RO-162.000.RC NC-RO-166.000	MVP-VRA-340-1448	49.2	-	-	Add flare to TA-RO-135
NC-RO-165.000	MVP-VRA-028-1304	49.2	-	-	Delete ATWS 1453 because it is under Duke's ROW
NC-RO-165.000	MVP-VRA-285-1635	49.25	-	-	Trim out TWS to have a 11' buffer around house - 1 story, abandoned
NC-RO-165.000 NC-RO-166.000 NC-RO-167.000	MVP-VRA-028-1306	49.3	-	-	Delete ATWS 1455 because it is under Duke's ROW
NC-RO-168.000.RC	MVP-VRA-340-1450	49.5	-	-	Add flare to TA-RO-136
NC-RO-173.000	MVP-VRA-028-1309	50.1	-	-	Trim TWS to stay 25' away from Duke's tower
-	MVP-VRA-340-1453	50.3	-	-	Add flare to TA-RO-139
NC-RO-179.000	MVP-VRA-292-1203	50.75	-	-	Add TWS
NC-RO-182.000.RC	MVP-VRA-340-1455	51.4	-	-	Add flare to TA-RO-140
NC-RO-181.000	MVP-VRA-340-1458	51.6	-	-	Add to TA-RO-141 for turning
NC-RO-181.000	MVP-VRA-340-1456	51.6	-	-	Add to TA-RO-141 for turning
NC-RO-182.000.RC	MVP-VRA-340-1459	51.7	-	-	Add flare to TA-RO-142

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-183.000 NC-RO-183.100.AR NC-RO-183.200.AR NC-RO-183.300.AR	MVP-RR-253-1629	52	-	-	Adjusted TA-RO-143 CL to MDS CL points of existing road and round turns
NC-GU-001.000	MVP-VRA-340-1501	52.2	-	-	Add flare to TA-RO-144
NC-RO-183.000.RC NC-RO-185.000	MVP-VRA-340-1502	52.2	-	-	Add flare to TA-RO-144
NC-GU-001.000	MVP-VRA-340-1504	52.3	-	-	Add space for turning to TA-RO-144
NC-AL-000.045.RC NC-AL-000.045	MVP-VRA-340-1509	53	-	-	Add flare to TA-AL-147
NC-AL-000.060.RC	MVP-VRA-340-1511	53.3	-	-	Add flare to TA-AL-149
NC-AL-002.000.AR	MVP-VRA-340-1526	53.5	-	-	Add flare to TA-AL-152
NC-AL-000.065	MVP-VRA-053-1736	53.65	-	-	Add TWS wetland W-A18-85 only enters LOD at approx 35 -40 feet
NC-AL-003.000	MVP-VRA-340-1528	53.8	-	-	Add flare to TA-AL-153
NC-AL-005.000	MVP-VRA-053-1737	54	-	-	Add TWS steam S-A18-89 only enters LOD at approx 50 feet
NC-AL-006.100	MVP-VRA-340-1530	54.2	-	-	Add to TA-AL-154 for turning
-	MVP-VRA-340-1531	54.2	-	-	Add flare to TA-AL-154
NC-AL-006.000	MVP-VRA-053-0922	54.35	-	-	Add TWS back in because the wetland crosses the LOD approximately 70 feet so a neck down of 75' is not needed
NC-AL-006.100	MVP-VRA-340-1532	54.7	-	-	Add to TA-AL-155 for turning
NC-AL-009.000	MVP-RA-292-1206	55	-	-	Edit ATWS 1504 to stay a minimum of 50 ft from the wetland/waterbody
NC-AL-018.000	MVP-VRA-340-1534	55.6	-	-	Add flare to TA-AL-157
NC-AL-018.000 NC-AL-019.000	MVP-VRA-028-1310	55.6	-	-	Trim ATWS that to stay out of Duke's ROW
NC-AL-022.000	MVP-VRA-028-1313	55.8	-	-	Trim TWS to stay 25' away from electric poles
NC-AL-027.000	MVP-VRA-340-1535	56.3	-	-	Add flare to TA-AL-159
NC-AL-033.000	MVP-VRA-340-1537	56.8	-	-	Add to TA-AL-159B for turning
NC-AL-033.000	MVP-VRA-340-1538	56.8	-	-	Add to TA-AL-159B for turning

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-033.000	MVP-VRA-340-1542	56.9	-	-	Add flare to TA-AL-159A
NC-AL-043.000	MVP-VRA-305-1719	57.55	-	-	Trim TWS to make neck down 75'
NC-AL-008.100	MVP-VRA-353-1615	57.7	-	-	Add space for turning to TA-AL-155
NC-AL-043.000	MVP-VRA-285-1636	57.8	-	-	Trim back ATWS to have a 11' buffer around mobile home
NC-AL-044.000 NC-AL-044.000.RC NC-AL-046.000	MVP-VRA-305-1721	57.85	-	-	Trim TWS to make neck down 75'
NC-AL-043.000.RC	MVP-VRA-340-1546	58.05	-	-	Add flare to TA-AL-162
NC-AL-064.000	MVP-VRA-305-1723	59.65	-	-	Trim TWS to make neck down 75'
NC-AL-066.000	MVP-VRA-340-1613	59.9	-	-	Add flare to TA-AL-165
NC-AL-068.000.RC	MVP-VRA-340-1615	60.2	-	-	Add flare to PA-AL-166
NC-AL-069.000	MVP-VRA-354-1623	60.3	-	-	Remove contractor yard CY-10 and TA-AL-165A
NC-AL-076.100	MVP-VRA-340-1616	61.1	-	-	Add flare to TA-AL-167
NC-AL-081.000.RC	MVP-VRA-340-1617	61.55	-	-	Add flare to TA-AL-168
NC-AL-086.000	MVP-VRA-340-1619	62.4	-	-	Add flare to TA-AL-169
NC-AL-086.000	MVP-VRA-028-1507	62.5	-	-	Edit ATWS 1572 because of adjusting access road to be on existing path
NC-AL-086.000	MVP-VRA-053-1740	62.65	-	-	Add TWS wetland W-A18-80 enters LOD at approx 70 feet
NC-AL-093.000 NC-AL-102.000	MVP-VRA-063-1215	63.45	-	-	Add TWS 5 feet wide centered on the CL of easement on top of permanent ROW from HDD exit down to water body 5’ corridor centered on the pipe between the edges of the workspace between the entry and exit points.
NC-AL-103.000	MVP-VRA-340-1653	63.7	-	-	Move access road over to stay off of NC-AL-103.100
NC-AL-101.000	MVP-VRA-340-1620	63.7	-	-	Add flare to TA-AL-171
-	MVP-VRA-340-1621	63.7	-	-	Add flare to TA-AL-172
NC-AL-104.000	MVP-VRA-063-1220	63.75	-	-	Add TWS 5 feet wide centered on the CL of easement on top of permanent ROW from HDD entry down to water body 5’ corridor centered on the pipe between the edges of the workspace between the entry and exit points.

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-103.000 NC-AL-104.000	MVP-VRA-305-1724	64	-	-	Trim TWS to make neck down 75'
-	MVP-VRA-340-1623	64.8	-	-	Add flare to PA-AL-175A
MVF-NC-AL-007.000 MVF-NC-AL-010.000	MVP-VRR-032-1136	64.8	65.2	0.4	Adjust the CL to avoid cemetery and change the road crossing PI to be a little bit further away from the road ROW
MVF-NC-AL-007.000	MVP-VRR-032-1140	65.1	-	-	Add ATWS 50' x 200' for PI
MVF-NC-AL-007.000	MVP-VRA-025-0905	65.2	-	-	Add ATWS
MVF-NC-AL-011.000	MVP-VRA-025-0906	65.3	-	-	Add to ATWS 1588J and edit the north line to be off of the road ROW
MVF-NC-AL-011.000 MVF-NC-AL-012.000	MVP-VRA-025-0907	65.3	-	-	Trim ATWS to be outside of environmental buffer and to stay off of MVF-NC-AL-012.000
MVF-NC-AL-011.000 MVF-NC-AL-012.000	MVP-VRR-032-1147	65.3	65.45	0.15	Adjust the route to be on the west edge of MVF-NC-AL-011.000 staying 10 ft away from property line and staying out of the environmental buffer. No LOD should be on MVF-NC-AL-012.000
MVF-NC-AL-013.000 NC-AL-120.000	MVP-VRA-305-1726	65.6	-	-	Trim TWS to make neck down 75'
FA3-AL-006.000	MVP-VRA-028-1532	66.4	-	-	Trim ATWS 1588T to stay out of environmental buffer
NC-AL-132.100	MVP-VRA-340-1629	67.25	-	-	Add flare to TA-AL-180
NC-AL-132.100 NC-AL-133.000	MVP-VRA-340-1631	67.3	-	-	Add space for turning to TA-AL-180
MVF-NC-AL-013.000 MVF-NC-AL-011.000	MVP-RA-292-1207	67.5	-	-	Edit ATWS 1588K to stay a minimum of 50 ft from the wetland/waterbody
NC-AL-137.000	MVP-RA-292-1208	67.6	-	-	Edit ATWS 1620 to stay a minimum of 50 ft from the wetland/waterbody
NC-AL-143.000	MVP-VRA-011-0842	68.35	-	-	Trim TWS to reduce the environmental impact
NC-AL-148.000	MVP-VRA-340-1635	68.95	-	-	Add flare to TA-AL-185
NC-AL-149.000	MVP-VRA-353-1619	69.95	-	-	Add space for turning to TA-AL-185
NC-AL-191.000	MVP-VRA-340-1638	70.9	-	-	Add space for turning to TA-AL-188
NC-AL-191.000	MVP-VRA-340-1640	70.9	-	-	Add to TA-AL-188, Change to ATWS
	MVP-VRA-340-1641	70.9	-	-	Add flare to TA-AL-188
NC-AL-191.100	MVP-VRA-028-1508	71	-	-	Edit ATWS 1674 because of adjusting access road to be on existing path

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-197.000	MVP-VRA-340-1644	72.2	-	-	Add flare to TA-AL-192
NC-AL-210.000 NC-AL-211.000	MVP-VRA-340-1646	73	-	-	Add space for turning to PA-AL-194
NC-AL-211.000	MVP-VRA-340-1648	73	-	-	Add flare to PA-AL-194
NC-AL-210.000	MVP-VRA-011-0850	73	-	-	Trim ATWS to stay outside of the environmental buffer
NC-AL-210.000	MVP-VRR-023-1100	73.11	-	-	This is a place holder for the move of the T-21 site
NC-AL-210.000	MVP-VRR-023-1057	73.11	73.13	0.02	This is a place holder for the extension of the pipeline because of the T-21 move
VA-PI-142.200	MVP-VRA-339-1717	CY-03	-	-	Adjust access road TA-PI-000B flare
NC-RO-001.400	MVP-VRA-052-1357	CY-05	-	-	Trim CY-05 to avoid W-A18-249
NC-RO-001.100.CY05 NC-RO-001.500.CY	MVP-VRA-354-1611	CY-05	-	-	Remove this part of CY-05 to stay off of NC-RO-001.100.CY05
NC-RO-014.200.CY06	MVP-VRA3-354-1613	CY-06	-	-	Remove this part of CY-06 to stay off of NC-RO-014.200.CY06
NC-RO-014.100	MVP-VRA-052-1646	CY-06	-	-	Trim out CY-06 to avoid wetland W-A18-245 and tree clearing
NC-RO-002.200.CY07	MVP-VRA-354-1615	CY-07	-	-	Remove contractor yard CY-07 and TA-RO-082B
	MVP-VRA-340-1034	CY-08	-	-	Add flare to TA-RO-000A
NC-RO-136.100	MVP-VRA-011-0830	CY-08	-	-	Trim contractor yard CY-08 to stay outside of environmental buffer
NC-RO-136.100	MVP-VRA-011-0833	CY-08	-	-	Trim contractor yard CY-08 to stay outside of environmental buffer
NC-GU-001.300.CY09	MVP-VRA-354-1622	CY-09	-	-	Remove this part of CY-09
NC-GU-001.200	MVP-VRA-011-0835	CY-09	-	-	Trim contractor yard CY-09 to be outside of environmental buffer and out of trees
VA-PI-002.000	MVP-VRA3-115-1254	0	-	-	Trim ATWS 1001E to canopy line
VA-PI-002.000	MVP-VRA3-115-1253	0	-	-	Trim ATWS 1001E to canopy line
VA-PI-002.000	MVP-VRA3-115-1251	0	-	-	Trim ATWS 1001E to canopy line
VA-PI-009.000	MVP-VRA3-122-1122	1.2	-	-	Delete ATWS 1018 because TA-PI-003 was deleted
VA-PI-008.000 VA-PI-008.300 VA-PI-009.000	MVP-VRA3-116-1258	1.2	-	-	Delete TA-PI-003

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-009.000	MVP-VRA3-093-1825	1.2	-	-	Change access road TA-PI-003 to tie back into the LOD
VA-PI-009.000	MVP-VRA3-093-1823	1.2	-	-	Delete ATWS 1019
VA-PI-009.000	MVP-VRR3-080-1320	1.2	1.4	0.2	Adjust route to avoid sensitive resource (VA FS 53)
VA-PI-009.000	MVP-VRA3-093-1827	1.3	-	-	Extend ATWS 1017 so that the access road change will have area for turnaround
VA-PI-009.000	MVP-VRA3-093-1829	1.3	-	-	Change ATWS 1020 to wrap around the new route
VA-PI-010.000	MVP-VRR3-116-1300	1.6	-	-	Widen out PI for access road TA-PI-004
VA-PI-012.000	MVP-VRR3-098-1552	2.2	-	-	Adjust TA-PI-005 to avoid wetland
VA-PI-012.000	MVP-VRR3-116-1303	2.3	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-005. Stay inside of survey corridor
VA-PI-012.000	MVP-VRR3-116-1306	2.3	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-005. Stay inside of survey corridor
VA-PI-012.000	MVP-VRR3-116-1304	2.3	-	-	Add ATWS 12.5' x 100' for pull off on the east of TA-PI-005. Stay inside of survey corridor
VA-PI-012.000	MVP-VRA3-121-1111	2.3	-	-	Widen TA-PI-005 for safe vehicle transportation. Stay inside of survey corridor
VA-PI-012.000 VA-PI-014.000	MVP-VRA3-058-1114	2.7	-	-	Remove TA-PI-005 from impacting tract VA-PI-014.000, make edge of property to CL of access road 15' making the distance to edge of access road 2.5'
VA-PI-023.000	MVP-VRR3-117-2202	3.4	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-006. Stay inside of survey corridor
VA-PI-022.000 VA-PI-023.000	MVP-VRA3-115-1255	3.6	-	-	Move ATWS 1035 north into field and out of trees. Give the canopy line a 3' buffer
VA-PI-022.000 VA-PI-023.000	MVP-VRA3-116-1309	3.6	-	-	Delete TA-PI-006A
VA-PI-032.000	MVP-VRA3-116-1343	4.8	-	-	Delete ATWS 1048
VA-PI-032.000	MVP-VRA3-116-1347	4.8	-	-	Delete TA-PI-009
VA-PI-034.100	MVP-VRR3-116-1601	5.1	-	-	Add ATWS 12.5' x 100' for pull off on the north of TA-PI-011. Stay inside of survey corridor
VA-PI-034.100	MVP-VRR3-116-1559	5.1	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-011. Stay inside of survey corridor
VA-PI-034.000 VA-PI-034.100	MVP-VRR3-119-1614	5.1	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-011. Stay inside of survey corridor

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-034.100 VA-PI-034.200	MVP-VRA3-058-1226	5.2	-	-	Remove TA-PI-011 from impacting tract VA-PI-034.200
VA-PI-036.000	MVP-VRR3-116-1604	5.6	-	-	Add ATWS 12.5' x 100' for pull off on the east of TA-PI-015. Stay inside of survey corridor
VA-PI-035.100 VA-PI-037.000	MVP-VRR3-116-1654	5.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-016. Stay inside of survey corridor
VA-PI-036.000	MVP-VRA3-043-1340	6	-	-	Edit ATWS 1057 to be 100' x 200' rectangle
VA-PI-036.000	MVP-VRA3-067-0940	6.2	-	-	Move ATWS 1059 north to avoid ground water testing well
VA-PI-036.000 VA-PI-037.000	MVP-VRA3-043-1345	6.25	-	-	Edit ATWS 1060 to be 100' x 200' rectangle
VA-PI-038.000	MVP-VRR3-116-1611	6.85	-	-	Add ATWS 12.5' x 100' for pull off on the south of TA-PI-018. Stay inside of survey corridor
VA-PI-039.000	MVP-VRR3-116-1642	6.85	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-018. Stay inside of survey corridor
VA-PI-040.000	MVP-VRA3-116-1613	7	-	-	Move ATWS 1066 south to avoid slope
VA-PI-040.000.RC VA-PI-041.000	MVP-VRA3-052-1712	7.2	-	-	Add gravel pull off
VA-PI-041.000	MVP-VRA3-098-1408	7.2	-	-	Add Ground bed 1, Option 2 back in. Please call this "Groundbed 1, Alternate 2"
VA-PI-041.000	MVP-VRA3-058-1418	7.2	-	-	Groundbed 1, Option 2 = 36.750700, -79.425596 (between MM 7.1 and 7.2) is not viable due to the soil resistivity data we received. Can be removed from the maps and the alignment sheets at this time
VA-PI-042.000	MVP-VRA3-042-1140	7.4	-	-	Trim TWS to stay 5' off of the existing facility fence
VA-PI-042.000	MVP-VRA3-037-1107	7.4	-	-	Change PA-PI-018B to MLV 2 to be 12' wide and centered on the CL of easement
VA-PI-045.001 VA-PI-045.000.RC	MVP-VRR3-059-1434	8.1	-	-	Groundbed 1, Mar Alt 2 seem to have power nearby. Please call this "Groundbed 1, Alternate 4"
VA-PI-045.001 VA-PI-045.000.RC	MVP-VRA3-059-1430	8.1	-	-	Add gravel pad near the rectifier location for the operations pickup trucks
VA-PI-047.000	MVP-VRA3-116-1644	8.2	-	-	Delete TA-PI-021
VA-PI-048.000	MVP-VRR3-116-1739	8.5	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-022. Stay inside of survey corridor
VA-PI-048.000	MVP-VRR3-116-1740	8.5	-	-	Add ATWS 12.5' x 100' for pull off on the south of TA-PI-022. Stay inside of survey corridor
VA-PI-051.000	MVP-VRR3-117-2204	8.95	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-023. Stay inside of survey corridor

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-051.000	MVP-VRR3-117-2205	8.95	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-023. Stay inside of survey corridor
VA-PI-052.000	MVP-VRA3-116-1741	9.1	-	-	Delete TA-PI-024
VA-PI-053.000	MVP-VRR3-059-1457	9.35	-	-	Groundbed 1, Mar Alt 1 seem to have power nearby. Please call this "Groundbed 1, Alternate 3"
VA-PI-053.000 VA-PI-052.000.RC	MVP-VRA3-059-1451	9.35	-	-	Add gravel pad near the rectifier location for the operations pickup trucks
VA-PI-053.000	MVP-VRR3-116-1744	9.6	-	-	Add ATWS 12.5' x 100' for pull off on the west of TA-PI-025. Stay inside of survey corridor
VA-PI-053.000	MVP-VRA3-098-1555	9.8	-	-	Trim TWS to avoid wetland
VA-PI-054.000 VA-PI-055.000 VA-PI-057.000	MVP-VRA3-087-1719	10.2	-	-	Remove TWS from tract VA-PI-057.000 completely. total impact .01 acres Please give the property line a 1' buffer
VA-PI-072.000 VA-PI-073.000 VA-PI-065.000	MVP-VRA3-058-1404	10.65	-	-	Remove TWS from tract VA-PI-072.000, give the property line a 1' buffer
VA-PI-065.000.RC VA-PI-065.000	MVP-VRA3-344-1609	10.7	-	-	Add temporary drive way for landowner access
VA-PI-075.000	MVP-VRA3-098-1410	10.8	-	-	Add Ground bed 1, Option 1 back in. Please call this "Groundbed 1, Alternate 1"
VA-PI-065.000.RC	MVP-VRA3-064-0832	10.8	-	-	Add gravel pull off back in
VA-PI-075.000	MVP-VRA3-058-1421	10.8	-	-	Groundbed 1, Option 1 = 36.710853, -79.464851 (between MM 10.7 and 10.8) is not viable due to the soil resistivity data we received. Can be removed from the maps and the alignment sheets at this time
VA-PI-075.000	MVP-VRR3-116-1755	11.05	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-027. Stay inside of survey corridor
VA-PI-075.000	MVP-VRA3-093-1830	11.1	-	-	Extend ATWS 1096 to property line. Give property line a 1' buffer
VA-PI-082.000	MVP-VRA3-044-1119	12.4	-	-	Delete PA-PI-029 because it leads to an old location of an MLV
VA-PI-088.000 VA-PI-089.000 VA-PI-090.000	MVP-VRA3-052-1552	13.4	13.5	0.1	Adjust line to stay on VA-PI-089.000 and not impact VA-PI-088.000 at all, give the property line a 1' buffer
VA-PI-090.000 VA-PI-091.000 VA-PI-090.100	MVP-VRA3-116-1756	13.65	-	-	Delete TA-PI-034
VA-PI-092.200	MVP-VRR3-116-1758	14.15	-	-	Add ATWS 12.5' x 200' for pull off on the west of TA-PI-035. Stay inside of survey corridor
VA-PI-092.200 VA-PI-092.300	MVP-VRA3-064-0909	14.15	-	-	Move TA-PI-035 over to avoid VA-PI-092.300. Give the property line a 1' buffer

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-094.000	MVP-VRR3-112-1329	14.7	-	-	Move ATWS 1118A to the west side of LOD because of wetland
VA-PI-094.000	MVP-VRA3-122-0938	14.7	-	-	Trim ATWS 1118A to tree canopy line
VA-PI-095.000 VA-PI-096.000	MVP-VRR3-112-1330	14.75	-	-	Move ATWS 1118B to the west side of LOD because of wetland
VA-PI-100.000	MVP-VRA3-114-1548	14.9	-	-	Move ATWS 1120 to the east side of LOD per landowner request (Pollok)
VA-PI-099.000 VA-PI-099.100	MVP-VRA3-114-1546	14.9	-	-	MP 14.90 Delete TA-PI-036
VA-PI-099.000	MVP-VRR3-114-1549	15.1	-	-	Adjust TA-PI-037 up the hill per landowner request (Pollok)
VA-PI-099.000	MVP-VRA3-114-1551	15.1	-	-	Move ATWS 1120A up the hill away from the pond per landowner request (Pollok)
VA-PI-099.000 VA-PI-101.000	MVP-VRA3-114-1552	15.3	15.4	0.1	Adjust the route to avoid sediment catch area per landowner request (Pollok)
VA-PI-102.000 VA-PI-102.100	MVP-VRA3-116-1759	15.8	-	-	Delete TA-PI-038
VA-PI-114.000 VA-PI-115.000	MVP-VRA3-052-1554	16.45	-	-	Trim ATWS 1131 to not impact VA-PI-114.000 at all, give the property line a 1' buffer
VA-PI-115.000 VA-PI-116.000	MVP-VRR3-116-1801	16.7	-	-	Add ATWS 12.5' x 100' for pull off on the north of TA-PI-041. Stay inside of survey corridor
VA-PI-115.000	MVP-VRA3-116-1802	16.7	-	-	Delete TA-PI-042
VA-PI-115.100	MVP-VRR3-119-1616	17.2	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-043. Stay inside of survey corridor
VA-PI-118.000	MVP-VRR3-119-1615	17.2	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-043. Stay inside of survey corridor
VA-PI-118.000	MVP-VRA3-058-1426	17.3	-	-	Move ATWS 1137 south west to avoid clearing trees
VA-PI-121.000 VA-PI-118.000	MVP-VRR3-282-1108	17.4	17.9	0.5	Adjust the CL to avoid prehistoric site
VA-PI-121.000	MVP-VRR3-116-1804	18	-	-	Add ATWS 12.5' x 100' for pull off on the east of TA-PI-046. Stay inside of survey corridor
VA-PI-124.000	MVP-VRA3-037-1108	18.25	-	-	Change PA-PI-046A to MLV 3 to be 12' wide and centered on CL of easement
VA-PI-125.000 VA-PI-128.000	MVP-VRA3-116-1805	18.65	-	-	Delete TA-PI-048
VA-PI-140.000	MVP-VRR3-116-1806	19.5	-	-	Add ATWS 12.5' x 100' for pull off on the west of TA-PI-049. Stay inside of survey corridor
VA-PI-152.000	MVP-VRR3-059-1503	20	-	-	Groundbed 2, ALt 2 seem to have power nearby. Please call this "Groundbed 2, Alternate 2"

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-151.000.RC	MVP-VRA3-059-1500	20	-	-	Add gravel pad near the rectifier location for the operations pickup trucks
VA-PI-154.000 VA-PI-154.200 VA-PI-156.000.RC VA-PI-155.000 VA-PI-157.000	MVP-VRR3-117-2206	20.2	-	-	Extend TA-PI-051A to the property line. Give the property line a 1' buffer. Stay on VA-PI-154.000, VA-PI-154.200
VA-PI-154.000	MVP-VRA3-123-1458	20.2	-	-	Trim TWS to stay 26' away from the residence
VA-PI-154.200	MVP-VRA3-127-1943	20.25	-	-	Trim TWS to be 26' away from residence
VA-PI-154.200	MVP-VRA3-126-1538	20.25	-	-	Cut back some additional TWS to avoid car port not shown on IL but visible in custom Imagery and shot in by civil under MDS points. Give the carport a 5' buffer
VA-PI-160.000	MVP-VRR3-117-2112	20.5	-	-	Add ATWS 25' x 100' for pull off. Keep all on north east side and move the pull off north 100'
VA-PI-160.000	MVP-VRR3-117-2110	20.5	-	-	Add ATWS 12.5' x 100' for pull off on the west of TA-PI-052. Stay inside of survey corridor
VA-PI-162.000.RC VA-PI-163.000	MVP-VRR3-344-1427	21.1	-	-	Extend PA-PI-053 to the public road
VA-PI-165.000	MVP-VRA3-120-1437	21.6	-	-	Remove ATWS 1168 because TA-PI-055 has been removed
VA-PI-165.000 VA-PI-165.100	MVP-VRA3-117-2115	21.6	-	-	Remove TA-PI-055
VA-PI-169.000	MVP-VRA3-098-1557	22	-	-	Trim TWS to keep the 75' neck down
VA-PI-174.000	MVP-VRR3-119-1620	23	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-061. Stay inside of survey corridor
VA-PI-172.000	MVP-VRR3-119-1618	23	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-061. Stay inside of survey corridor
VA-PI-172.000	MVP-VRR3-119-1619	23	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-061. Stay inside of survey corridor
VA-PI-178.100	MVP-VRR3-117-2118	24	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-PI-063. Stay inside of survey corridor
VA-PI-178.000	MVP-VRA3-117-2124	24.6	-	-	Remove TA-PI-064
VA-PI-180.000	MVP-VRR3-117-2126	24.8	-	-	Widen TA-PI-066 for safe vehicle transportation
VA-PI-180.000 NC-RO-001.000	MVP-VRA3-117-2129	26	-	-	Remove TA-PI-068
NC-RO-001.000	MVP-VRA3-116-1458	26.2	-	-	Remove TA-RO-070

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-004.000	MVP-VRA3-042-1142	26.6	26.8	0.2	Adjust CL to where the TWS is approx 8' from the existing facility fence post
NC-RO-004.000	MVP-VRA3-116-1503	26.7	-	-	Remove TA-RO-071
NC-RO-004.000	MVP-VRA3-059-1607	26.7	-	-	Change ATWS 1211A from an ATWS to a turning flare of TA-RO-071
NC-RO-004.000	MVP-VRA3-059-1604	26.7	-	-	Change ATWS 1209A from an ATWS to a turning flare of TA-RO-071
NC-RO-005.000 NC-RO-004.000	MVP-VRR3-063-1316	26.9	27.1	0.2	Adjust the CL south because of Williams pipeline crosses in this same area, change the Non working side to the north for the crossing. Changes per field meeting with Williams Transco personnel.
NC-RO-005.000	MVP-VRR3-116-1518	27	-	-	Reroute TA-RO-072A
NC-RO-005.000	MVP-VRA3-115-1257	27	-	-	Combine ATWS 1213 and 1213F to be 1 ATWS
NC-RO-005.000	MVP-VRA3-063-1330	27	-	-	Add ATWS for road crossing 100' wide
NC-RO-005.000	MVP-VRA3-063-1331	27	-	-	Move ATWS 1213 down to PI make the dimensions to be 200' x 100'
NC-RO-005.000	MVP-VRA3-063-1337	27	-	-	Change the working side to be on the south side of permanent ROW when crossing existing pipelines
NC-RO-005.000	MVP-VRA3-063-1519	27	-	-	Change the non working side to be on the north side of permanent ROW when crossing existing pipelines
NC-RO-005.000	MVP-VRA3-063-1335	27	-	-	Change TA-RO-073 to end at ATWS 1213. Delete ATWS 1213B
NC-RO-005.000	MVP-VRA3-063-1333	27	-	-	Move ATWS 1213A to PI
NC-RO-005.000	MVP-VRA3-063-1334	27	-	-	Extend TA-RO-072A to ATWS 1213A
NC-RO-005.000	MVP-VRA3-116-1606	27.05	-	-	Extension of TA-RO-072B to cover private road from TWS to ATWS 1213F due to removal of TA-RO-073
NC-RO-005.000	MVP-VRA3-115-1258	27.1	-	-	Extend ATWS 1213A because of wetland
NC-RO-005.000	MVP-VRA3-115-1300	27.1	-	-	Trim ATWS 1213A to avoid the wetland. Give the wetland a 5' buffer because this ATWS is needed for crossing the existing pipelines
NC-RO-005.000	MVP-VRA3-122-0939	27.1	-	-	Delete ATWS 1213C
NC-RO-005.000	MVP-VRA3-116-1520	27.15	-	-	Remove ATWS 1213B
NC-RO-005.000	MVP-VRA3-116-1554	27.15	-	-	Remove TA-RO-073

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Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-005.000	MVP-VRA3-122-0940	27.25	-	-	Reduce ATWS 1213D to 150 ft long from 280 ft long. Measuring on the short edge
NC-RO-005.000 NC-RO-006.000	MVP-VRA3-116-1612	27.4	-	-	Remove TA-RO-073A
NC-RO-006.000	MVP-VRA3-032-1359	27.4	-	-	Increase ATWS for more working area for stream crossing
NC-RO-006.000	MVP-VRR3-116-1615	27.8	-	-	Add ATWS 12.5' x 100' for pull off on the south of TA-RO-075.
NC-RO-006.000	MVP-VRR3-116-1619	28.2	-	-	Add ATWS 12.5' x 100' for pull off on the south of PA-RO-000. Stay inside of survey corridor
NC-RO-006.000	MVP-VRR3-116-1617	28.2	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of PA-RO-000. Stay inside of survey corridor
NC-RO-006.000 NC-RO-007.000	MVP-VRA3-087-1708	27.7	28.7	1	MP 27.40 to 28.30 When on the north west side of Williams Transco. Please see the survey points for the edge of their ROW. Adjust the route so that the TWS is at the edge of Williams Transco's ROW. MP 28.30 to 28.70 When on the south east side of Williams Transco. Please see the survey points for the edge of their ROW. Adjust the route so that the perm. ROW is butting up to the edge of their ROW. In locations that the edge of Williams Transco's ROW is unknown: Offset the CL of the closest pipe by 10' to the TWS. Making the CL of MVPSG to CL of their pipe 50' Changes per field meeting with Williams Transco personnel
NC-RO-006.000	MVP-VRR3-116-1622	28.6	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-076. Stay inside of survey corridor
NC-RO-007.000	MVP-VRR3-116-2214	29.1	-	-	Add ATWS 12.5' x 100' for pull off on the east of TA-RO-078. Stay inside of survey corridor
NC-RO-007.000 NC-RO-007.200 NC-RO-009.000 NC-RO-010.000	MVP-VRA3-067-1000	29.6	-	-	Adjust TA-RO-079A to avoid tracts RO-007.200, 009.000, 010.000. Maintain road on NC-RO-007.000 only.
NC-RO-007.000 NC-RO-007.200	MVP-VRR3-116-2217	29.65	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-079A. Stay inside of survey corridor
NC-RO-007.000	MVP-VRA3-045-1240	29.85	-	-	Add ATWS 25' Wide for pull back sections and boring operations
NC-RO-011.000	MVP-VRR3-116-2220	29.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-080. Stay inside of survey corridor

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-011.000	MVP-VRR3-116-2222	29.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-080. Stay inside of survey corridor
NC-RO-011.000 NC-RO-011.100	MVP-VRR3-116-2227	29.9	-	-	Widen PI in TA-RO-080 for safe vehicle transportation. Stay inside of survey corridor
NC-RO-011.000 NC-RO-011.100	MVP-VRR3-116-2224	29.9	-	-	Widen PI in TA-RO-080 for safe vehicle transportation. Stay inside of survey corridor
NC-RO-011.000	MVP-VRA3-087-0936	29.9	-	-	Trim ATWS 1247 to stay out of environmental buffer
NC-RO-011.000	MVP-VRA3-059-1608	29.9	-	-	Change ATWS 1247A from an ATWS to a turning flare of TA-RO-080
NC-RO-011.000	MVP-VRA3-130-1421	30	-	-	Change TWS for HDD from 5' to 3' per FERC request
NC-RO-013.000 NC-RO-014.000 NC-RO-015.000 NC-RO-016.000	MVP-VRA3-130-1423	30.2	-	-	Change TWS for HDD from 5' to 3' per FERC request
NC-RO-014.000 NC-RO-015.000	MVP-VRR3-088-1117	30.4	-	-	Add ATWS for hydro test water storage
NC-RO-015.000	MVP-VRR3-088-1120	30.4	-	-	Add temporary access road for hydrotest
NC-RO-022.000	MVP-VRA3-025-0829	30.9	-	-	Add ATWS because of stream neck downs
NC-RO-033.000	MVP-VRA3-116-2229	31.65	-	-	Remove TA-RO-084
NC-RO-038.100	MVP-VRR3-116-2233	32.4	-	-	Add ATWS 12.5' x 100' for pull off on the east of TA-RO-085. Stay inside of survey corridor
NC-RO-038.000	MVP-VRR3-116-2231	32.4	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-085. Stay inside of survey corridor
NC-RO-038.000	MVP-VRR3-119-1652	32.4	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-085. Stay inside of survey corridor
NC-RO-038.000	MVP-VRA3-116-2234	32.5	-	-	Remove TA-RO-086
NC-RO-040.000	MVP-VRR3-116-2236	32.8	-	-	Add ATWS 12.5' x 100' for pull off on the west of TA-PI-087. Stay inside of survey corridor
NC-RO-039.000	MVP-VRR3-116-2237	32.8	-	-	Add ATWS 12.5' x 100' for pull off on the north of TA-RO-087. Stay inside of survey corridor
NC-RO-044.000	MVP-VRR3-116-2239	33.6	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-088. Stay inside of survey corridor
NC-RO-044.000	MVP-VRR3-116-2240	33.6	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-088. Stay inside of survey corridor
NC-RO-044.000	MVP-VRR3-116-2242	33.6	-	-	Widen PI on TA-RO-088 for safe vehicle transportation. Stay inside of survey corridor

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-047.300	MVP-VRR3-116-2244	34.1	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-089. Stay inside of survey corridor
NC-RO-046.000 NC-RO-047.000	MVP-VRA3-063-1223	34.1	-	-	Remove TWS form this tract. Re-position onto NC-RO-047.000 if the area must be kept. Give the property line a 1' buffer
NC-RO-046.000 NC-RO-047.000	MVP-VRA3-353-1601	34.1	-	-	Add space for turning to TA-RO-089 for turning flare
NC-RO-053.000	MVP-VRR3-119-1018	34.7	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-091. Stay inside of survey corridor
NC-RO-059.000	MVP-VRR3-119-1020	35.45	-	-	Add ATWS 12.5' x 200' for pull off on the south of TA-RO-092. Stay inside of survey corridor
NC-RO-059.000 NC-RO-058.000	MVP-VRA3-119-1023	35.65	-	-	Remove TA-RO-093
NC-RO-059.000	MVP-VRA3-340-1149	35.65	-	-	Add flare to TA-RO-093
NC-RO-058.000 NC-RO-059.000	MVP-VRR3-119-1026	35.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-094. Stay inside of survey corridor
NC-RO-061.000 NC-RO-061.000.RC	MVP-VRA3-119-1028	36.2	-	-	Remove TA-RO-095
NC-RO-067.000 NC-RO-068.000	MVP-VRA3-119-1030	36.75	-	-	Remove TA-RO-099
NC-RO-069.000	MVP-VRA3-080-1335	37	-	-	LO request adjustment to access road to avoid recently planted trees.
NC-RO-069.000	MVP-VRR3-119-1032	37.1	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-100. Stay inside of survey corridor
NC-RO-077.000	MVP-VRR3-119-1037	37.6	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-102. Stay inside of survey corridor
NC-RO-080.000	MVP-VRA3-058-1427	37.8	-	-	Trim ATWS 1324A to be 25' away from existing pipelines
NC-RO-080.000	MVP-VRA3-058-1429	37.81	-	-	Trim ATWS 1326 to be 25' away from existing pipelines
NC-RO-080.000 NC-RO-082.000 NC-RO-083.000	MVP-VRA3-058-1431	37.9	-	-	Trim TWS to be 10' off set from existing pipeline
NC-RO-085.000	MVP-VRR3-119-1040	38.1	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-103. Stay inside of survey corridor. Also please move this pull off south due to the cemetery in this same area
NC-RO-085.000	MVP-VRR3-119-1038	38.1	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-103. Stay inside of survey corridor
NC-RO-087.000 NC-RO-088.000	MVP-VRA3-049-1100	38.2	-	-	Add ATWS 100' wide for crossing of foreign pipelines

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-087.000 NC-RO-088.000	MVP-VRA3-049-1102	38.2	-	-	Move ATWS 1330 to the east side
NC-RO-089.000	MVP-VRA3-119-1041	38.55	-	-	Remove TA-RO-104
NC-RO-090.000	MVP-VRA3-119-1043	38.8	-	-	Add RCE from Crutchfield Rd to ATWS 1336 abutting TWS. RCE entrance to be across from TA-RO-106.
NC-RO-091.000	MVP-VRA3-119-1046	38.9	-	-	Shorten TA-RO-106 to meet western edge of ATWS 1338 and ATWS 1339.
NC-RO-094.000 NC-RO-094.100	MVP-VRA3-119-1653	39.4	-	-	Trim TA-RO-107 to stop at TA-RO-108
NC-RO-094.200 NC-RO-094.300	MVP-VRA3-353-1605	39.4	-	-	Add space for turning to TA-RO-107
NC-RO-100.100	MVP-VRR3-119-0934	39.7	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-109. Stay inside of survey corridor
NC-RO-100.000 NC-RO-097.000.RR NC-RO-100.100	MVP-VRA3-085-0834	39.7	-	-	Change PA-RO-109 to a temporary access road, TA-RO-109. At one point this permanent access road went to a ground bed. This ground bed location is no longer in consideration but the access road is needed for boring operations
NC-RO-100.100 NC-RO-097.000.RR	MVP-VRA3-058-1409	39.7	-	-	Remove PA-RO-109 from impacting tract NC-RO-100.100, make edge of property to CL of access road 15' making the distance to edge of access road 2.5'
NC-RO-101.000 NC-RO-103.000 NC-RO-104.000 NC-RO-102.000	MVP-VRR3-098-0836	40.3	40.4	0.1	Reroute to avoid impacts to Ore property onto willing landowner
NC-RO-102.000	MVP-VRA3-127-1945	40.3	-	-	Trim TWS to be 26' away from residence
NC-RO-102.000	MVP-VRA3-121-1112	40.3	-	-	Make the access rd 50 foot wide with a 75 foot flare so we can get large trucks in there for off load of bore equipment and pipe.The road is very narrow (hence the name) and if we don't have a wide area to turn into, a large truck cannot swing wide enough to enter. Stay inside of survey corridor
NC-RO-102.000 NC-RO-104.000	MVP-VRA3-121-1113	40.3	-	-	Trim TWS off of NC-RO-104.000. Give the property a 1' buffer for the TWS, the perm. ROW will still impact this property
NC-RO-105.000	MVP-VRA3-120-1230	40.35	-	-	Add ATWS but stay inside of survey corridor for Ore Reroute
NC-RO-105.000	MVP-VRA3-120-1232	40.35	-	-	Add ATWS but stay inside of survey corridor for Ore Reroute
NC-RO-105.000	MVP-VRA3-120-1229	40.4	40.5	0.1	Adjust route to avoid landowner leech field (Strader)
NC-RO-105.000	MVP-VRA3-120-1234	40.4	-	-	Add ATWS but stay inside of survey corridor for Ore Reroute

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-105.000	MVP-VRA3-120-1233	40.4	-	-	Add ATWS but stay inside of survey corridor for Ore Reroute
NC-RO-105.000	MVP-VRA3-058-1433	40.4	-	-	Trim TWS only to be 25' away from power pole
NC-RO-108.000	MVP-VRR3-119-0936	40.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-111. Stay inside of survey corridor
NC-RO-109.000	MVP-VRR3-119-0937	40.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-111. Stay inside of survey corridor
NC-RO-109.000	MVP-VRR3-119-0938	40.9	-	-	Add ATWS 25' x 100' for pull off. Keep it all on the north side of TA-RO-111. Stay inside of survey corridor
NC-RO-105.000 NC-RO-105.100	MVP-VRA3-085-0947	40.9	-	-	Remove this part of TA-RO-111. Give the property line of NC-RO-108.000 a 120' buffer Chicken farm road is a public road to approximately the west property line of NC-RO-108.000 at this point it becomes private
NC-RO-108.000	MVP-VRA3-353-1606	40.9	-	-	Add space for turning to TA-RO-111 for turning flare
NC-RO-108.000	MVP-VRA3-353-1607	40.9	-	-	Add space for turning to TA-RO-111 for turning flare
NC-RO-111.000	MVP-VRR3-119-0940	41.4	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of PA-RO-112. Stay inside of survey corridor
NC-RO-111.000	MVP-VRR3-119-0939	41.4	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-112. Stay inside of survey corridor
NC-RO-112.000 NC-RO-112.100	MVP-VRR3-080-1327	41.7	-	-	LO Request that we adjust the Access road to better fit his desires on the property. states anything that is currently seen on the aerial photo is or will be moved if necessary.
NC-RO-112.000	MVP-VRR3-119-0944	41.8	-	-	Add ATWS 12.5' x 100' for pull off on the south of PA-RO-113A. Stay inside of survey corridor. Move this pull of east to the property line, give the property line a 1' buffer
NC-RO-112.000	MVP-VRR3-119-0943	41.8	-	-	Add ATWS 25' x 100' for pull off. Flip the pull off to north side of PA-RO-113A. Stay inside of survey corridor
NC-RO-112.000	MVP-VRA3-100-1700	41.8	-	-	Delete Groundbed 3, Alternate 1
NC-RO-112.000 NC-RO-112.100	MVP-VRA3-128-1037	41.8	-	-	Change PA-RO-113A to a temporary access road
NC-RO-112.200	MVP-VRA3-037-1110	42.2	-	-	Change PA-RO-114A to MLV 5 to be 12' wide and centered on CL of easement
NC-RO-117.000 NC-RO-117.100	MVP-VRR3-119-0945	42.4	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-115. Stay inside of survey corridor
NC-RO-117.250	MVP-VRA3-087-1014	43.1	-	-	Trim TWS to avoid car port and water well. Give the car port and water well a 5' buffer

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-118.000	MVP-VRA3-087-0938	43.1	-	-	Extend ATWS 1384 for boring operations
NC-RO-117.000.RC NC-RO-118.000 NC-RO-117.250	MVP-VRA3-119-1239	43.15	-	-	Add RCE
NC-RO-122.000 NC-RO-122.100	MVP-VRA3-119-1241	43.15	-	-	Add RCE
NC-RO-117.000.RC NC-RO-117.250	MVP-VRA3-087-1721	43.15	-	-	Trim TWS to avoid car port, water well and driveway Give the car port and water well a 5' buffer
NC-RO-121.000 NC-RO-122.000 NC-RO-117.000.RC	MVP-VRA3-119-1243	43.2	-	-	Remove TA-RO-115A
NC-RO-122.000 NC-RO-122.100 NC-RO-124.000.RC	MVP-VRA3-119-1247	43.4	-	-	Add RCE
NC-RO-122.000 NC-RO-122.100 NC-RO-124.000.RC	MVP-VRA3-119-1249	43.4	-	-	Remove TA-RO-117
NC-RO-122.000 NC-RO-122.100 NC-RO-124.000.RC	MVP-VRA3-119-1251	43.4	-	-	Remove TA-RO-118
NC-RO-122.000 NC-RO-122.100 NC-RO-124.000.RC	MVP-VRA3-119-1245	43.4	-	-	Add RCE
NC-RO-133.000	MVP-VRR3-119-1305	43.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-119. Stay inside of survey corridor
NC-RO-133.000	MVP-VRR3-119-1259	43.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-119. Stay inside of survey corridor
NC-RO-133.000	MVP-VRR3-119-1306	44.1	-	-	Add ATWS 12.5' x 100' for pull off on the south of TA-RO-122. Stay inside of survey corridor
NC-RO-138.000	MVP-VRA3-119-1700	44.8	-	-	Remove TA-RO-124
NC-RO-138.000	MVP-VRA3-107-0917	44.9	-	-	Delete Groundbed 3 on the north side of the road. The new groundbed 3 will be on the south side of the road
NC-RO-139.000	MVP-VRA3-077-1416	44.9	-	-	Deep Anode Bed 3 Location: 36.331227, -79.601542 *Note: GPS location is approximate groundbed will be within 30' x 30' gravel pad at a location where drilling rig does not interfere with overhead power lines. Please call this "Groundbed 3"
NC-RO-139.000	MVP-VRA3-077-1419	44.9	-	-	Gravel pull off
NC-RO-138.000	MVP-VRA3-107-0918	44.9	-	-	Move PA-RO-124A to the other side of the road
NC-RO-139.000	MVP-VRR3-119-1308	45.3	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-126. Stay inside of survey corridor

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-140.000	MVP-VRA3-107-0841	45.5	-	-	ATWS 1415 is on a steep sloped LO has concerns about erosion. Has requested ATWS be moved to the indicated location. This has been reviewed and discussed with Dave Embry
NC-RO-142.000 NC-RO-143.000	MVP-VRR3-080-1329	46	46.3	0.3	LO request that we adjust to be as close to the existing corridor as possible.
NC-RO-143.400	MVP-VRR3-119-1309	46.1	-	-	Add ATWS 25' x 100' for pull off. Keep all of pull off on the west side of TA-RO-127.
NC-RO-143.000	MVP-VRR3-119-1310	46.1	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-127. Stay inside of survey corridor
NC-RO-143.400	MVP-VRA3-340-1319	46.1	-	-	Add flare to TA-RO-127 at public road
NC-RO-148.505 NC-RO-148.515	MVP-VRR3-119-1311	46.75	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-129. Stay inside of survey corridor and move east to stay out of enviromental buffer
NC-RO-149.100	MVP-VRR3-119-1313	47.3	-	-	Add ATWS 12.5' x 100' for pull off on the east of TA-RO-130. Stay inside of survey corridor
NC-RO-149.100	MVP-VRR3-119-1312	47.3	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-130. Stay inside of survey corridor
NC-RO-157.000 NC-RO-157.000.RC	MVP-VRA3-119-1316	48.2	-	-	Add RCE
NC-RO-156.000 NC-RO-157.000	MVP-VRA3-119-1314	48.2	-	-	Remove TA-RO-131
NC-RO-157.000.RC NC-RO-160.000	MVP-VRA3-119-1317	48.4	-	-	Add RCE
NC-RO-159.000 NC-RO-160.000	MVP-VRR3-063-1229	48.5	-	-	LO request change in Access Rd to line shown. Can go west to the ROW or back East to the existing road.
NC-RO-159.000 NC-RO-160.000	MVP-VRA3-119-1321	48.5	-	-	Remove TA-RO-133. Access via RCE
NC-RO-160.000 NC-RO-162.000	MVP-VRA3-106-1505	48.5	-	-	Delete ATWS 1447 because the access road is being changed
NC-RO-160.000	MVP-VRA3-106-1504	48.5	-	-	Add ATWS because the access road is being changed
NC-RO-162.000 NC-RO-163.000	MVP-VRA3-052-1304	49.1	-	-	Trim ATWS 1451 to avoid NC-RO-163.000, give a 1' buffer to the property line
NC-RO-164.000 NC-RO-165.000	MVP-VRA3-058-1436	49.15	-	-	Trim TWS and ATWS to be 25' away from power pole
NC-RO-165.000	MVP-VRR3-119-1319	49.2	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-135. Stay inside of survey corridor
NC-RO-165.000	MVP-VRA3-025-0858	49.3	-	-	Trim ATWS to be outside of environmental buffer
NC-RO-168.000.RC	MVP-VRA3-119-1323	49.5	-	-	Add RCE

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-168.000.RC	MVP-VRA3-119-1324	49.5	-	-	Add RCE
NC-RO-167.000 NC-RO-168.000 NC-RO-168.000.RC	MVP-VRA3-119-1325	49.5	-	-	Remove TA-RO-136
NC-RO-169.000	MVP-VRA3-058-1607	49.55	-	-	Trim ATWS 1457 at tree line to stay outside of power line ROW
NC-RO-170.000	MVP-VRR3-119-1327	49.8	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-138. Stay inside of survey corridor
NC-RO-170.000	MVP-VRA3-340-1452	49.8	-	-	Add flare TA-RO-138 at public road
NC-RO-170.000 NC-RO-171.000 NC-RO-172.000 NC-RO-173.000 NC-RO-174.000 NC-RO-175.000 NC-RO-177.000 NC-RO-178.000 NC-RO-179.000 NC-RO-180.000 NC-RO-181.000	MVP-VRA3-087-1019	49.7	51.6	1.9	Adjust the route to be outside of Duke's ROW Please see PDF with dimensions of their ROW that is located in the folder for this modification
NC-RO-174.200 NC-RO-174.400	MVP-VRR3-119-1328	50.3	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-139. Stay inside of survey corridor
NC-RO-174.000	MVP-VRR3-119-1329	50.3	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-RO-139. Stay inside of survey corridor
NC-RO-179.000	MVP-VRA3-025-0903	50.7	-	-	Trim TWS and move ATWS to be outside of environmental buffer
NC-RO-179.000	MVP-VRA3-025-0901	50.7	-	-	Move ATWS outside of environmental buffer
NC-RO-183.000	MVP-VRA3-353-1614	51.7	-	-	Add space for turning to TA-RO-142 for turning flare
NC-GU-001.000 NC-RO-181.000 NC-RO-186.000	MVP-VRR3-058-1608	52.3	52.5	0.2	Adjust CL to cross the Transmission power lines between the towers
NC-AL-000.060 NC-AL-000.060.RC NC-AL-000.065	MVP-VRA3-118-2043	53.3	-	-	Add RCE to both sides of workspace
NC-AL-000.060 NC-AL-000.060.RC NC-AL-000.065	MVP-VRA3-118-2045	53.3	-	-	Move RCE closer to Row and add to both sides of workspace
NC-AL-000.065	MVP-VRA3-071-0825	53.35	-	-	Add TWS
NC-AL-001.000 NC-AL-000.065	MVP-VRA3-118-2047	53.5	-	-	Remove TA-AL-152
NC-AL-003.000	MVP-VRR3-119-2055	53.8	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-AL-153. Stay inside of survey corridor

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-006.000 NC-AL-006.100	MVP-VRR3-118-2049	54.25	-	-	Add ATWS 12.5' x 100' for pull off on the west of TA-AL-154. Stay inside of survey corridor. Move north 40'
NC-AL-006.000 NC-AL-006.100	MVP-VRR3-063-1231	54.3	-	-	LO has requested that TA-AL-154 be changed to the shown route and the remainder of the road be deleted.
NC-AL-008.100	MVP-VRR3-118-2050	54.7	-	-	Add ATWS 25' x 100' for pull off. Keep all of pull of on the west side of TA-AL-155. Stay inside of survey corridor
NC-AL-006.000 NC-AL-006.100 NC-AL-008.100	MVP-VRR3-067-1007	54.7	-	-	Landowner offers this route as an alternate to TA-AL-154/155. New road to be completely on AL-008.100. This new road and VRR3-063-1231 will replace TA-AL-154/155
NC-AL-009.000 NC-AL-009.000.RC	MVP-VRA3-118-2051	55.05	-	-	Add access road. RCE will be needed on both side of road
NC-AL-010.000	MVP-VRA3-037-1111	55.1	-	-	Change PA-AL-155A to MLV 6 to be 12' wide and centered on CL of easement
NC-AL-018.000	MVP-VRA3-118-2053	55.6	-	-	Widen TA-AL-157
NC-AL-027.000 NC-AL-028.000	MVP-VRA3-118-2054	56.3	-	-	Remove TA-AL-159
NC-AL-033.000	MVP-VRR3-118-2056	56.9	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-AL-159A. Stay inside of survey corridor. Move south east 125' to avoid tree clearing on the east side
NC-AL-033.000	MVP-VRA3-011-1011	56.9	-	-	Add area TA-AL-159A for turning flare
NC-AL-042.000 NC-AL-043.000	MVP-VRA3-073-1106	57.5	-	-	Move ATWS 1533 out of environmental buffer
NC-AL-043.000.RC	MVP-VRA3-340-1544	57.7	-	-	Add flare to TA-AL-161 at public road
NC-AL-043.000 NC-AL-044.000	MVP-VRR3-118-2057	57.75	-	-	Add ATWS 12.5' x 100' for pull off on the west of TA-AL-161. Stay inside of survey corridor
NC-AL-043.000 NC-AL-044.000	MVP-VRA3-127-1948	57.8	-	-	Trim ATWS 1536 to be 26' away from residence
NC-AL-046.000	MVP-VRR3-118-2058	58.1	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-AL-162. Stay inside of survey corridor
NC-AL-046.000	MVP-VRR3-118-2059	58.1	-	-	Adjust TA-AL-162 over if possible
NC-AL-050.100	MVP-VRR3-118-2101	58.4	-	-	Add ATWS 25' x 100' for pull off. Keep all of the pull off on the east side TA-AL-163. Stay inside of survey corridor
NC-AL-050.100	MVP-VRA3-340-1611	58.4	-	-	Add flare to TA-AL-163 at public road
NC-AL-052.000	MVP-VRA3-340-1612	58.6	-	-	Add flare to PA-AL-164 at public road

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-052.000 NC-AL-052.100	MVP-VRA3-118-2102	58.8	-	-	Remove PA-AL-164
NC-AL-052.000	MVP-VRA3-059-0949	58.8	-	-	Change PA-AL-164 to a temporary access road
NC-AL-066.000 NC-AL-067.000	MVP-VRA3-118-2107	60	-	-	Remove TA-AL-165
NC-AL-066.000 NC-AL-066.000.RC NC-AL-067.000	MVP-VRA3-118-2104	60	-	-	Add RCE
NC-AL-066.000 NC-AL-066.000.RC NC-AL-067.000	MVP-VRA3-118-2106	60	-	-	Add RCE
NC-AL-067.001 NC-AL-068.000 NC-AL-068.000.RC	MVP-VRA3-118-2109	60.25	-	-	Add RCE
NC-AL-068.000.RC NC-AL-069.000	MVP-VRA3-118-2110	60.25	-	-	Add RCE
NC-AL-070.000 NC-AL-071.000 NC-AL-072.000 NC-AL-074.000	MVP-VRA3-052-1605	60.4	-	-	Trim TWS to avoid tract NC-AL-071.000 and NC-AL-072.000, give the property line a 1' buffer
NC-AL-076.100	MVP-VRR3-118-2112	61.15	-	-	Add ATWS 12.5' x 100' for pull off on the west of TA-AL-167. Stay inside of survey corridor
NC-AL-081.000	MVP-VRR3-118-2113	61.15	-	-	Add ATWS 12.5' x 200' for pull off on the west of TA-AL-168. Stay inside of survey corridor
NC-AL-076.100 NC-AL-076.600	MVP-VRR3-052-1608	61.15	-	-	Adjust TA-AL-167 to avoid NC-AL-076.600, give the property line a 1' buffer and wait for property boundary to be set
NC-AL-081.000	MVP-VRA3-118-2115	61.55	-	-	Widen TA-AL-168 PI
NC-AL-086.000	MVP-VRR3-118-2116	62.4	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-AL-169. Move west 80' to avoid tree clearing. and structure. When moving pull off please do not impact power pole. Stay inside of survey corridor
NC-AL-088.000	MVP-VRA3-049-1326	62.8	-	-	Trim ATWS 1575 to stay off of NC-AL-088.000. Give the property a 1' buffer
NC-AL-098.000	MVP-VRR3-289-0846	63.25	-	-	Relocate access road TA-AL-171 so it doesn't go past land owners house
NC-AL-101.000 NC-AL-102.000	MVP-VRA3-088-1634	63.4	-	-	Relocate access road TA-AL-171 to MP 63.25 that will be on NC-AL-098.000. so it doesn't go past land owners house
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000 NC-AL-102.000	MVP-VRA3-130-1426	63.5	-	-	Change TWS for HDD from 5' to 3'
NC-AL-104.000	MVP-VRA3-130-1428	63.7	-	-	Change TWS for HDD from 5' to 3'

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-103.000	MVP-VRA3-112-1332	64	-	-	Trim TWS to be outside of environmental buffer
NC-AL-106.000	MVP-VRA3-112-1333	64.05	-	-	Trim TWS to be outside of environmental buffer
MVF-NC-AL-005.000.RC MVF-NC-AL-007.000	MVP-VRA3-118-2119	64.8	-	-	Add RCE
MVF-NC-AL-005.000.RC MVF-NC-AL-007.000	MVP-VRA3-118-2117	64.8	-	-	Add RCE
MVF-NC-AL-007.000	MVP-VRA3-100-1701	64.8	-	-	Delete Groundbed 4, Alternate 1
NC-AL-120.000	MVP-VRA3-025-0909	65.65	-	-	Trim TWS to be outside of environmental buffer
FA3-AL-008.000 FA3-AL-009.000	MVP-VRA3-029-0944	66.6	-	-	Trim TWS to make a 75' neck down
FA3-AL-010.200 FA3-AL-010.300 FA3-AL-010.000 FA3-AL-010.100	MVP-VRA3-114-1235	66.7	-	-	Delete TA-AL-179A
FA3-AL-010.300	MVP-VRA3-353-1617	66.7	-	-	Add space for turning to TA-AL-179A for turning flare
FA3-AL-010.300	MVP-VRA3-353-1618	66.7	-	-	Add space for turning to TA-AL-179A for turning flare
FA3-AL-010.200	MVP-VRA3-340-1624	66.7	-	-	Add flare to TA-AL-179A at public road
NC-AL-127.000 NC-AL-128.000 NC-AL-129.000 NC-AL-132.000 NC-AL-133.000 NC-AL-134.000 NC-AL-135.000 NC-AL-136.000 NC-AL-137.000	MVP-VRR3-108-1000	66.7	67.5	0.8	Reroute to reduce impacts to East Alamance Quarry, Martin Marietta Materials Inc.,
NC-AL-131.000 NC-AL-132.000	MVP-VRR3-114-1238	67	-	-	Add temporary access road
FA3-AL-009.000 FA3-AL-010.000 NC-AL-128.000 NC-AL-127.000 NC-AL-129.000 NC-AL-131.000 NC-AL-132.000 NC-AL-133.000 NC-AL-136.000	MVP-VRA3-114-1412	67	-	-	Make the new survey corridor's west edge 90' from the CL and the east edge to be 110' from CL. In locations where there is ATWS the survey corridor shall be expanded to the extents of the ATWS
NC-AL-132.100	MVP-VRR3-118-2122	67.3	-	-	Add ATWS 12.5' x 100' for pull off on the north of TA-AL-180. Stay inside of survey corridor
NC-AL-135.000 NC-AL-136.000	MVP-VRA3-052-1611	67.6	-	-	Trim ATWS 1619 to avoid NC-AL-136.000, give the property line a 1' buffer and wait for the property boundary to be set

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-135.000	MVP-VRA3-087-1015	67.6	-	-	Trim ATWS 1619A to stay out of environmental buffer
NC-AL-136.000 NC-AL-137.000	MVP-VRR3-118-2123	68	-	-	Add ATWS 25' x 100' for pull off. Keep pull off all north of TA-AL-181. Stay inside of survey corridor
NC-AL-139.000	MVP-VRA3-340-1632	68	-	-	Add flare to TA-AL-181 at public road
NC-AL-143.300	MVP-VRR3-118-2125	68.2	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-AL-181A. Stay inside of survey corridor
NC-AL-143.000	MVP-VRR3-118-2126	68.2	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-AL-181A. Stay inside of survey corridor
NC-AL-142.000 NC-AL-143.000	MVP-VRA3-114-1146	68.2	-	-	Delete MLV 7 it will be moved to south of Haw River Hopedale Rd
NC-AL-142.000 NC-AL-143.000	MVP-VRA3-100-1702	68.2	-	-	Delete Groundbed 4, Alternate 2
NC-AL-143.400	MVP-VRA3-340-1634	68.2	-	-	Add flare to PA-AL-181A at public road
NC-AL-143.000 NC-AL-143.100 NC-AL-143.200 NC-AL-143.300 NC-AL-143.400	MVP-VRA3-050-0915	68.25	-	-	Change PA-AL-181A to a temporary access road, keep the width of the AR 25'
NC-AL-144.000.RC NC-AL-148.000	MVP-VRA3-114-1150	68.7	-	-	Add PAR, 12' wide and centered on the CL of easement
NC-AL-148.000	MVP-VRA3-114-1148	68.7	-	-	Move MLV 7 to south of Haw River Hopedale Rd.
NC-AL-149.000	MVP-VRR3-118-2127	68.95	-	-	Add ATWS 25' x 100' for pull off. Keep pull off all south of TA-AL-185. Stay inside of survey corridor
NC-AL-150.000	MVP-VRA3-123-1504	69.1	-	-	Trim ATWS 1649 to stay 26' away from the residence
NC-AL-154.000 NC-AL-164.000	MVP-VRA3-067-1524	69.3	-	-	Trim ATWS 1651 to stay off of NC-AL-165.000.AR. Give the property line a 1' buffer
NC-AL-154.000	MVP-VRA3-067-1626	69.3	-	-	Extend ATWS 1651
NC-AL-162.000 NC-AL-165.000 NC-AL-161.000	MVP-VRA3-067-1525	69.4	-	-	Trim ATWS 1652 to stay off of NC-AL-165.000.AR. Give the property line a 1' buffer
NC-AL-163.000 NC-AL-163.100	MVP-VRA3-052-1612	69.45	-	-	Trim TWS to avoid NC-AL-163.100, give the property line a 1' buffer
NC-AL-165.000	MVP-VRR3-118-2129	69.5	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-AL-187. Stay inside of survey corridor
NC-AL-165.000	MVP-VRR3-118-2128	69.5	-	-	Add ATWS 25' x 100' for pull off. Split the pull off to 12.5' on both sides of TA-AL-187. Stay inside of survey corridor

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-166.000 NC-AL-167.000	MVP-VRR3-118-2131	69.5	-	-	Adjust TA-AL-187
NC-AL-166.000 NC-AL-167.000	MVP-VRA3-067-1527	69.5	-	-	Trim ATWS 1653 to stay off of NC-AL-167.000. Give the property line a 1' buffer
NC-AL-166.000.RC	MVP-VRA3-340-1637	69.5	-	-	Add flare to TA-AL-187 at public road
NC-AL-170.300 NC-AL-179.000 NC-AL-180.000 NC-AL-181.000	MVP-VRA3-011-0846	69.7	-	-	Trim ATWS to stay outside of the environmental buffer and neck down the TWS to 75'
NC-AL-181.000	MVP-VRA3-011-0844	69.7	-	-	Extend ATWS for additional construction workspace
NC-AL-179.000 NC-AL-180.000 NC-AL-181.000	MVP-VRA3-127-1950	69.8	-	-	Trim ATWS 1653C and TWS to be 26' away from residence
NC-AL-182.000 NC-AL-183.000 NC-AL-184.000	MVP-VRA3-116-1645	69.8	-	-	Add access road
NC-AL-191.300 NC-AL-191.100	MVP-VRA3-067-1014	71	-	-	Delete Access road TA-AL-188 this has been determined to be a public road. Give the property line a 10' buffer
NC-AL-192.000	MVP-VRA3-353-1620	71.5	-	-	Add space for turning to TA-AL-190 for turning flare
NC-AL-192.000	MVP-VRA3-340-1642	71.55	-	-	Add flare to TA-AL-190 at public road
NC-AL-199.000	MVP-VRA3-340-1645	72.4	-	-	Add flare to TA-AL-193 at public road
NC-AL-203.000 NC-AL-204.000	MVP-VRA3-087-1809	72.7	72.8	0.1	Landowner request that pipeline be moved as far away form home as possible. It was explained that we would consider this move but only to the point we do not impact any additional landowners Give the property corner of NC-AL-202.000 a 1' puffer with the perm. ROW
NC-AL-203.000	MVP-VRA3-087-1814	72.8	-	-	Trim TWS to avoid NC-AL-202.000.ABU. Give the property line a 1' buffer
NC-AL-203.000	MVP-VRA3-087-1815	72.8	-	-	Trim TWS to avoid NC-AL-202.000.ABU. Give the property line a 1' buffer
NC-AL-203.000	MVP-VRA3-087-1811	72.8	-	-	Add ATWS to compensate for the loss of TWS on the East side
NC-AL-203.000 NC-AL-204.000	MVP-VRA3-086-1034	72.8	-	-	Add TWS back in because the delineated stream S-A18-118 does not cross the LOD
NC-AL-204.000 NC-AL-205.000 NC-AL-206.000 NC-AL-207.000 NC-AL-210.000	MVP-VRR3-100-1449	72.8	73	0.2	Adjust CL to the west of current route. Previous alignment would be unable to cross road and existing foreign line that resides within shoulder of major road. New alignment allows space to safely cross road and then foreign line.
NC-AL-206.000 NC-AL-208.000	MVP-VRA3-065-1637	72.9	-	-	Extend survey corridor because of reroutes

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
FA5-AL-025.000 NC-AL-210.000					
NC-AL-207.000 NC-AL-208.000	MVP-VRA3-052-1614	72.9	-	-	Trim ATWS 1691 to avoid NC-AL-208.000, give the property line a 1' buffer and wait for property boundary to be set
NC-AL-210.000	MVP-VRA3-045-1242	73.1	-	-	Trim ATWS to be outside of the environmental buffer
VA-PI-001.000 VA-PI-002.015	MVP-VRA3-119-1516	CY-01	-	-	Trim CY-01 to MDS points canopy line and the tree line observations from bio. Please use the points (MDS or bio.) that are closer to the center of the contractor yard. The KMZ of bio's tree line observation is in the same folder as this modification please see the link to file.
VA-PI-142.200	MVP-VRA3-112-1225	CY-03	-	-	Trim CY-03 to be outside of environmental buffer
VA-PI-142.200	MVP-VRA3-112-1227	CY-03	-	-	Trim CY-03 to be outside of environmental buffer
NC-RO-014.600	MVP-VRA3-122-1615	CY-04	-	-	Delete CY-04 due to proximity to church and zoning issues.
NC-RO-001.600.CY05A NC-RO-001.700.CY05A NC-RO-001.800.CY05A	MVP-VRR3-351-0908	CY-05A	-	-	CY-05A optional storage/contractor yard
NC-RO-001.600.CY05A NC-RO-001.700.CY05A NC-RO-001.800.CY05A	MVP-VRA3-122-1634	CY-05A	-	-	Delete CY-05A. Multiple power lines on east side of property, wetland running through west side of property
NC-RO-014.200.CY06	MVP-VRA3-354-1613	CY-06	-	-	Remove this part of CY-06 to stay off of NC-RO-014.200.CY06
NC-GU-001.200	MVP-VRA3-122-1636	CY-09	-	-	Delete CY-09. Small green field tract, not close to project.
Durham, North Carolina	MVP-VRR3-344-0827	CY-15	-	-	CY-15 optional storage/contractor yard
	MVP-VRA3-122-1637	CY-15	-	-	Delete CY-15. Due to goose creek running through entire property
Durham, North Carolina	MVP-VRA3-011-1106	CY-15	-	-	Remove this contractor yard from the project due to goose creek running through entire property
NC-GU-010	MVP-VRR3-344-0831	CY-16	-	-	CY-16 optional storage/contractor yard
NC-GU-010	MVP-VRA3-122-1638	CY-16	-	-	Delete CY-16. I would like to avoid the areas of high populations /Cities if possible. Site is large, and offers easy access by RR/RD.
NC-GU-012	MVP-VRR3-344-0833	CY-17	-	-	CY-17 optional storage/contractor yard Negatives: to be used as storage the site may need to be timbered.
NC-GU-012	MVP-VRA3-122-1640	CY-17	-	-	Delete CY-17. Large green field tract, close to SR29 on the southern end of Spread B.
NC-RO-200	MVP-VRR3-353-1414	CY-18	-	-	CY-18 optional storage/contractor yard

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-200	MVP-VRA3-122-1641	CY-18	-	-	Delete CY-18
NC-RO-200.CY18	MVP-VRA3-031-1505	CY-18	-	-	Trim CY-18 to be inside NC-RO-200.CY18 only. Trim the edges to leave 10' gap from the tax map shape and the start of CY
VA-PI-207	MVP-VRR3-353-1417	CY-19	-	-	CY-19 optional storage/contractor yard
VA-PI-207	MVP-VRA3-112-1228	CY-19	-	-	Trim CY-19 to be outside of environmental buffer
VA-PI-207.CY19	MVP-VRA3-031-1537	CY-19	-	-	Trim CY-19 to be inside VA-PI-207.CY19 only. Trim the edges to leave 10' gap from the tax map shape and the start of CY
VA-PI-209	MVP-VRR3-353-1418	CY-20	-	-	CY-20 optional storage/contractor yard
VA-PI-209	MVP-VRA3-122-1642	CY-20	-	-	Delete CY-20. Tract is a green field site, located on in the middle of Spread A, Poor access off of a major Hwy.
VA-PI-216	MVP-VRR3-353-1420	CY-21	-	-	CY-21 optional storage/contractor yard
VA-PI-216	MVP-VRA3-122-1643	CY-21	-	-	Delete CY-21. Tract is a green field site, located on in the middle of Spread A, not the best access off of a major Hwy, Large tract.
VA-PI-218 VA-PI-220	MVP-VRR3-353-1421	CY-22	-	-	CY-22 optional storage/contractor yard
VA-PI-218.CY22	MVP-VRA3-031-1619	CY-22	-	-	Trim CY-22 to be inside VA-PI-218.CY22 only. Trim the edges to leave 10' gap from the tax map shape and the start of CY
VA-PI-224 VA-PI-225	MVP-VRR3-353-1422	CY-23	-	-	CY-23 optional storage/contractor yard
VA-PI-224 VA-PI-225	MVP-VRA3-122-1644	CY-23	-	-	Delete CY-23
VA-PI-229	MVP-VRR3-353-1424	CY-24	-	-	CY-24 optional storage/contractor yard
VA-PI-229	MVP-VRA3-122-1647	CY-24	-	-	Delete CY-24. Tract is a green field site, located on in the middle of Spread A, not the best access off of a major Hwy, Very Large tract.
VA-PI-229.CY24	MVP-VRA3-031-1621	CY-24	-	-	Trim CY-24 to be inside VA-PI-229.CY24 only. Trim the edges to leave 10' gap from the tax map shape and the start of CY
Caswell, North Carolina	MVP-VRR3-353-1425	CY-25	-	-	CY-25 optional storage/contractor yard
NC-CA-001.000	MVP-VRA3-112-1300	CY-25	-	-	Trim CY-25 to be outside of environmental buffer. This will split the contractor yard in to two parts
NC-CA-001.000	MVP-VRA3-112-1301	CY-25	-	-	Trim CY-25 to be outside of environmental buffer
NC-CA-001.000	MVP-VRA3-112-1234	CY-25	-	-	Trim CY-25 to be outside of environmental buffer

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-CA-001.000	MVP-VRA3-112-1303	CY-25	-	-	Trim CY-25 to be outside of environmental buffer
NC-CA-001.000	MVP-VRA3-112-1232	CY-25	-	-	Trim CY-25 to be outside of environmental buffer
NC-AL-226 NC-AL-227	MVP-VRR3-353-1426	CY-26	-	-	CY-26 optional storage/contractor yard
NC-AL-226 NC-AL-227	MVP-VRA3-112-1345	CY-26	-	-	Trim CY-26 to be outside of environmental buffer. This will split the contractor yard in to two parts
NC-AL-226.CY26 NC-AL-227.CY26	MVP-VRA3-031-1622	CY-26	-	-	Trim CY-26 to be inside NC-AL-226.CY26 & NC-AL-227.CY26 only. Trim the edges to leave 10' gap from the tax map shape and the start of CY
NC-RO-203	MVP-VRR3-007-0934	CY-27	-	-	CY-27 optional storage/contractor yard
NC-RO-203.CY27 NC-RO-202.CY27	MVP-VRA3-031-1623	CY-27	-	-	Delete CY-27
NC-RO-205 NC-RO-208	MVP-VRR3-007-0937	CY-28	-	-	CY-28 optional storage/contractor yard
NC-RO-205 NC-RO-208	MVP-VRA3-122-1648	CY-28	-	-	Delete CY-28. Tract is a green field site, located on in the middle of the project, could be used on Spread B, short drive from HWY 29.
NC-RO-205.CY28 NC-RO-208.CY28 NC-RO-209.CY28	MVP-VRA3-031-1625	CY-28	-	-	Trim CY-28 to be inside NC-RO-205.CY28, NC-RO-208.CY28 & NC-RO-209.CY28 only. Trim the edges to leave 10' gap from the tax map shape and the start of CY
NC-AL-228 NC-AL-229	MVP-VRR3-007-0939	CY-29	-	-	CY-29 optional storage/contractor yard
NC-AL-228.CY29 NC-AL-229.CY29	MVP-VRA3-031-1645	CY-29	-	-	Delete CY-29 because the land owner denied survey permission
NC-AL-233	MVP-VRR3-007-0941	CY-30	-	-	CY-30 optional storage/contractor yard
NC-AL-232.CY30 NC-AL-233.CY30 NC-AL-234.CY30	MVP-VRA3-106-1410	CY-30	-	-	Delete CY-30 because it is unusable
NC-OR-001.000	MVP-VRR3-007-0943	CY-31	-	-	CY-31 optional storage/contractor yard
NC-RO-001.000.CY31	MVP-VRA3-122-1649	CY-31	-	-	Delete CY-31. Tract is a green field site , located at the end off of Spread B , offers easy access off of major Hwys.
NC-OR-001.000.CY31	MVP-VRA3-031-1647	CY-31	-	-	Trim CY-31 to be inside NC-OR-001.000.CY31 only. Trim the edges to leave 10' gap from the tax map shape and the start of CY
VA-PI-002.000	MVP-VRR4-200-1508	0	-	-	Lambert Perm. Workspace
VA-PI-002.000	MVP-VRR4-200-1454	0	-	-	Change to ATWS

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-002.000	MVP-VRA4-210-1303	0	-	-	Trim ATWS-1001C to stay out of environmental buffer
VA-PI-002.000	MVP-VRA4-200-1507	0	-	-	Extend ATWS 1001E
VA-PI-002.000	MVP-VRA4-200-1505	0	-	-	Extend ATWS 1001C
VA-PI-002.000	MVP-VRA4-200-1458	0	-	-	Change to TWS
VA-PI-002.000	MVP-VRA4-200-1456	0	-	-	Change to ATWS
VA-PI-002.000	MVP-VRA4-200-1501	0	-	-	Delete perm. WS to stay out of wetland
VA-PI-002.000	MVP-VRA4-200-1451	0	-	-	Add TWS
VA-PI-009.000	MVP-VRA4-210-1305	1.3	-	-	Trim ATWS 1020 to stay out of environmental buffer
VA-PI-025.000	MVP-VRA4-210-1307	4	-	-	Trim ATWS-1038 to stay out of environmental buffer
VA-PI-041.000	MVP-VRA4-143-1456	7	-	-	Delete Groundbed #1, Alternate 2. Please extend ATWS 1068 and fill in the TWS
VA-PI-040.000.RC VA-PI-041.000	MVP-VRA4-177-1609	7.2	-	-	Delete PA-PI-018A
VA-PI-045.000.RC VA-PI-045.001	MVP-VRA4-177-1611	8.1	-	-	Delete PA-PI-018C
VA-PI-045.001 VA-PI-045.002	MVP-VRA4-143-1459	8.1	-	-	Delete Groundbed #1, Alternate 4. Please extend ATWS 1076 and fill in the TWS
VA-PI-045.000.RC VA-PI-047.000	MVP-VRR4-149-1425	8.45	-	-	Extend TA-PI-022 1' past edge of green property line.
VA-PI-053.000	MVP-VRA4-143-1504	9.35	-	-	Rename to Groundbed #1
VA-PI-065.000 VA-PI-065.000.RC	MVP-VRA4-183-1536	10.7	-	-	Delete TA-PI-026C
VA-PI-065.000.RC	MVP-VRA4-177-1613	10.8	-	-	Delete PA-PI-026C
VA-PI-075.000	MVP-VRA4-143-1501	10.8	-	-	Delete Groundbed #1, Alternate 1. Please connect ATWS 1094 and 1094 and fill in the TWS
VA-PI-089.000	MVP-VRA4-210-1312	13.4	-	-	Trim ATWS-1113 to stay out of environmental buffer
VA-PI-090.000 VA-PI-091.000	MVP-VRR4-107-0839	13.5	14.2	0.7	This is a Landowner/MVP compromise route to create a less impact to the LO property. (This is an adjustment to VRR3-080-1324 that was denied)
VA-PI-092.000 VA-PI-094.000	MVP-VRA4-144-1257	14.2	14.7	0.5	Adjust the CL to be 50' away from CL of existing piping, putting the edge of the TWS 10' away from the CL of exsiting pipe

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-099.100	MVP-VRA4-143-0856	15.1	-	-	Adjust TA-PI-037 to not impact parcel with no tract number. Parcel to the northwest. Give the property line a 1' buffer. Stay inside of survey corridor
VA-PI-103.000 VA-PI-103.000.RC	MVP-VRA4-196-1122	15.9	-	-	Add RCE
VA-PI-104.100 VA-PI-106.000	MVP-VRA4-193-0941	15.95	-	-	Trim ATWS 1126 to be away from overhead power lines
VA-PI-106.000	MVP-VRA4-193-0943	15.95	-	-	Trim ATWS 1126A to be away from overhead power lines
VA-PI-103.000.RC VA-PI-106.000	MVP-VRA4-196-1125	15.95	-	-	Add RCE
VA-PI-103.000.RC VA-PI-104.100 VA-PI-104.200 VA-PI-106.000	MVP-VRA4-196-1126	16	-	-	Delete TA-PI-039
VA-PI-115.000	MVP-VRA4-210-1315	16.9	-	-	Trim ATWS-1134 to stay out of environmental buffer
VA-PI-152.000	MVP-VRA4-143-1506	20	-	-	Rename to Groundbed #2
VA-PI-162.000 VA-PI-162.000.RC VA-PI-163.000	MVP-VRA4-177-1614	21.1	-	-	Change PA-PI-053 to temporary access road
VA-PI-163.000	MVP-VRA4-143-1503	21.1	-	-	Delete Groundbed #2. Please keep ATWS 1164 the same and fill in the TWS
VA-PI-169.000	MVP-VRA4-210-1316	22.05	-	-	Trim ATWS 1169 to stay out of environmental buffer
VA-PI-173.000 VA-PI-174.000 VA-PI-175.000 VA-PI-178.000	MVP-VRR4-098-1603	22.4	23.9	1.5	Berry Hill Alternate Route
VA-PI-173.000	MVP-VRA4-193-1607	22.4	-	-	Adjust ATWS 1173 to be 100' wide
VA-PI-173.000	MVP-VRA4-193-1609	22.41	-	-	Add ATWS 100' wide
VA-PI-173.000	MVP-VRA4-193-1611	22.5	-	-	Add ATWS 40' x 200' stay inside of survey corridor
VA-PI-173.000	MVP-VRA4-198-1123	22.65	-	-	Add ATWS
VA-PI-173.000	MVP-VRA4-193-1612	22.65	-	-	Add ATWS 90' x 120' stay inside of survey corridor
VA-PI-173.000	MVP-VRA4-193-1613	22.7	-	-	Add ATWS 40' x 200' stay inside of survey corridor
VA-PI-174.000	MVP-VRA4-193-1615	22.9	-	-	Add ATWS 75' x 150' stay inside of survey corridor
VA-PI-173.000 VA-PI-174.000	MVP-VRA4-193-1604	23	-	-	Berry Hill TWS

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-175.000 VA-PI-178.000					
VA-PI-174.000	MVP-VRA4-193-1616	23.1	-	-	Add ATWS 40' x 200' stay inside of survey corridor
VA-PI-174.000	MVP-VRA4-193-1617	23.15	-	-	Add ATWS 75' wide stay inside of survey corridor
VA-PI-174.000 VA-PI-175.000	MVP-VRA4-193-1618	23.2	-	-	Add ATWS 90' x 100' stay inside of survey corridor
VA-PI-175.000	MVP-VRA4-193-1619	23.45	-	-	Add ATWS 40' x 200' stay inside of survey corridor
VA-PI-175.000	MVP-VRA4-198-1125	23.5	-	-	Add ATWS 40' x 200' stay inside of survey corridor
VA-PI-175.000	MVP-VRA4-193-1621	23.65	-	-	Add ATWS 60' wide stay inside of survey corridor
VA-PI-175.000	MVP-VRA4-193-1622	23.7	-	-	Add ATWS 40' x 200' stay inside of survey corridor
VA-PI-178.000	MVP-VRA4-193-1623	23.75	-	-	Add ATWS 40' wide stay inside of survey corridor
VA-PI-178.000	MVP-VRA4-198-1126	23.8	-	-	Add ATWS 40' wide stay inside of survey corridor
VA-PI-178.000	MVP-VRA4-193-1625	23.8	-	-	Add ATWS 60' wide
VA-PI-178.000	MVP-VRA4-193-1626	23.85	-	-	Add ATWS 100' wide
VA-PI-178.000	MVP-VRA4-193-1627	23.9	-	-	Adjust ATWS 1188
VA-PI-178.000	MVP-VRA4-149-1427	24.7	-	-	Trim ATWS 1193 to the Canopy line to stay out of power line ROW
NC-RO-006.000	MVP-VRA4-210-1318	28	-	-	Trim ATWS 1224A to stay out of environmental buffer
NC-RO-006.000	MVP-VRA4-210-1319	28.1	-	-	Trim ATWS 1224 to stay out of environmental buffer
NC-RO-019.000 NC-RO-022.000	MVP-VRA4-210-1321	30.9	-	-	Trim ATWS 1253D to stay out of environmental buffer
NC-RO-038.000 NC-RO-038.010	MVP-VRA4-155-1606	32.4	-	-	Adjust TA-RO-085 to stay off of NC-RO-038.010. Give the property line a 1' buffer
NC-RO-047.400 NC-RO-047.500 NC-RO-047.600 NC-RO-046.000 NC-RO-047.100 NC-RO-047.200 NC-RO-047.300 NC-RO-046.000 NC-RO-047.100 NC-RO-045.000 NC-RO-047.000	MVP-VRA4-196-1128	34.1	-	-	Delete TA-RO-089, ATWS 1287A and ATWS 1287B

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-068.000 NC-RO-069.000 NC-RO-070.000	MVP-VRA4-196-1527	36.95	-	-	Trim TWS to avoid NC-RO-070.000. Give property line a 1' buffer
NC-RO-085.000	MVP-VRA4-197-1112	38.1	-	-	Trim ATWS 1328B to be out of the environmental buffer
NC-RO-085.000 NC-RO-086.000	MVP-VRA4-197-1108	38.1	38.2	0.1	Adjust CL to be outside of environmental buffer
NC-RO-085.000 NC-RO-086.000	MVP-VRA4-197-1111	38.1	-	-	Extend ATWS 1328
NC-RO-086.000	MVP-VRA4-197-1115	38.15	-	-	Add ATWS
NC-RO-086.000	MVP-VRA4-197-1116	38.2	-	-	Delete ATWS 1329
NC-RO-095.000	MVP-VRA4-191-1128	39.7	-	-	Trim TWS back to the edge of the road
NC-RO-095.000 NC-RO-098.000	MVP-VRA4-191-1126	39.7	-	-	Trim TWS back to the edge of the road to avoid NC-RO-098.000
NC-RO-095.000 NC-RO-097.000.RR NC-RO-098.000 NC-RO-100.000	MVP-VRA4-191-1124	39.7	-	-	Reduce Perm. ROW to 30' wide centered on the CL of easement to avoid NC-RO-098.000
NC-RO-102.000 NC-RO-103.000.RC NC-RO-104.000	MVP-VRA4-198-1349	40.4	-	-	Trim permanent ROW to avoid NC-RO-104.000. Give the property line a 1' buffer
NC-RO-112.000	MVP-VRA4-210-1323	41.65	-	-	Trim ATWS 1369 to stay out of environmental buffer
NC-RO-112.100	MVP-VRA4-143-0859	41.8	-	-	Move TA-RO-113A 10' west to not impact parcel to the east of the road with no parcel number. Give the property line a 1' buffer. Stay inside of survey corridor
NC-RO-116.000 NC-RO-117.000	MVP-VRA4-143-0900	42.4	-	-	Adjust TA-RO-115 to stay off this tract (NC-RO-116.000). Give the property line a 1' buffer. Stay inside of survey corridor
NC-RO-140.000	MVP-VRA4-157-1131	45.5	-	-	Please eliminate ATWS 1415 and add this new KMZ atws to IL. This is a landowner request.
NC-RO-140.000	MVP-VRA4-157-1133	45.55	-	-	Delete ATWS 1415
NC-RO-143.000 NC-RO-143.100 NC-RO-143.200 NC-RO-143.400	MVP-VRA4-172-1146	46.1	-	-	Adjust TA-RO-127 to be on the survey data of existing road
NC-RO-143.400	MVP-VRA4-143-0902	46.1	-	-	Move TA-RO-127 12.5' east to not impact this tract (NC-RO-143.500). Give the property line a 1' buffer. Stay inside of survey corridor
NC-RO-146.200 NC-RO-148.500 NC-RO-148.505	MVP-VRA4-126-1540	46.7	-	-	Request to remove TWS and ATWS from this tract completely. Give the property line a 1' buffer
NC-RO-148.505 NC-RO-148.510 NC-RO-148.515	MVP-VRA4-157-1602	46.7	-	-	Remove this portion of TA-RO-129 this is public in this area. Leave the access road 1' past the property line

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-148.505	MVP-VRA4-210-1325	46.7	-	-	Move ATWS 1426B east to avoid the environmental buffer
NC-RO-148.505	MVP-VRA4-210-1324	46.7	-	-	Move ATWS 1426A east to avoid the environmental buffer
NC-RO-160.000	MVP-VRA4-210-1326	48.5	-	-	Move 1446A south to avoid environmental buffer
NC-RO-174.200 NC-RO-174.400	MVP-VRA4-143-0903	50.3	-	-	Move TA-RO-139 12.5' south to not impact this tract (NC-RO-174.400). Give the property line a 1' buffer. Stay inside of survey corridor
NC-RO-174.100 NC-RO-174.200 NC-RO-174.300	MVP-VRA4-157-1325	50.3	-	-	Adjust TA-RO-139 to be off of NC-RO-174.300.AR. Give the property line a 1' buffer
NC-RO-181.000 NC-RO-182.000 NC-RO-182.000.RC	MVP-VRR4-199-0923	51.5	51.8	0.3	Duke RR
NC-RO-181.000 NC-RO-182.000 NC-RO-182.000.RC	MVP-VRA4-199-0928	51.5	-	-	LOD give NC-RO-182.000 property line a 1' buffer
NC-RO-181.000 NC-RO-182.000.RC	MVP-VRA4-212-1527	51.5	-	-	Adjust TA-RO-140 to avoid new land owner. Give property line a 1' buffer
NC-RO-181.000	MVP-VRA4-199-1043	51.6	-	-	Adjust ATWS 1467 to be 100' x 250'
NC-RO-181.000 NC-RO-183.000	MVP-VRA4-199-1046	51.65	-	-	Adjust ATWS 1469 to be 100' wide
NC-RO-181.000 NC-RO-183.000	MVP-VRA4-199-1049	51.7	-	-	Add ATWS 100' x 250'
NC-RO-181.000 NC-RO-183.000	MVP-VRA4-199-1051	51.8	-	-	Add ATWS 100' x 320'
NC-RO-181.000 NC-RO-183.000	MVP-VRA4-199-1052	51.8	-	-	Adjust TA-RO-142
NC-RO-181.000 NC-RO-184.000	MVP-VRA4-158-1227	52	-	-	Adjust ATWS 1472 because of the added PI
NC-RO-181.000 NC-RO-184.000 NC-RO-185.000 NC-GU-001.000	MVP-VRR4-158-1211	52.02	52.2	0.18	non-perpendicular alternative Jordan Watershed
NC-GU-001.000 NC-RO-181.000 NC-RO-184.000 NC-RO-185.000	MVP-VRR4-158-1231	52.1	-	-	Adjust TWS
NC-GU-001.000 NC-RO-181.000 NC-RO-184.000 NC-RO-185.000	MVP-VRR4-158-1228	52.1	-	-	Adjust TWS
NC-RO-185.000	MVP-VRA4-158-1259	52.1	-	-	Add ATWS 100' x 200'
NC-GU-001.000	MVP-VRA4-158-1301	52.2	-	-	Move ATWS 1474 back to original FERC Supplemental #3 location

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-006.000 NC-AL-006.100	MVP-VRA4-179-1424	54.3	-	-	Adjust TA-AL-154 east to avoid NC-AL-006.100.AR and add a turning flare. Give the property line a 1' buffer
NC-AL-010.000 NC-AL-018.000 NC-AL-019.000	MVP-VRR4-158-1233	55.1	-	-	Adjust TWS Move the north PI east to avoid adding a new land owner to the route
NC-AL-010.000 NC-AL-018.000 NC-AL-019.000	MVP-VRR4-158-1234	55.1	-	-	Adjust TWS Move the north PI east to avoid adding a new land owner to the route. Give the property line a 1' buffer
NC-AL-010.000 NC-AL-018.000 NC-AL-019.000	MVP-VRR4-158-1213	55.1	55.5	0.4	non-perpendicular alternative Jordan Watershed Move the north PI east to avoid adding a new land owner to the route
NC-AL-010.000	MVP-VRA4-158-1303	55.1	-	-	Add ATWS 100' x 100' then 45' x 100' on the smaller side. Stay off of NC-AL-011.000.ABU and NC-AL-012.000.ABU
NC-AL-010.000	MVP-VRA4-158-1304	55.1	-	-	Adjust ATWS 1507
NC-AL-010.000	MVP-VRA4-158-1316	55.15	-	-	Add ATWS 100' x 100'
NC-AL-010.000	MVP-VRA4-158-1317	55.2	-	-	Add ATWS 100' x 100'
NC-AL-010.000	MVP-VRA4-158-1318	55.25	-	-	Add ATWS 100' x 100'
NC-AL-019.000	MVP-VRA4-158-1319	55.3	-	-	Add ATWS 100' x 100'
NC-AL-018.000	MVP-VRA4-158-1320	55.45	-	-	Add ATWS 100' wide then 75' x 100 on the smaller side. Stay inside of survey corridor. Meet up with the tree line
NC-AL-018.000	MVP-VRA4-158-1321	55.5	-	-	Adjust ATWS 1511 because of the added PI
NC-AL-018.000 NC-AL-019.000	MVP-VRA4-210-1327	55.5	-	-	Trim ATWS 1511 to stay out of environmental buffer
NC-AL-027.000 NC-AL-031.000 NC-AL-030.000	MVP-VRA4-158-1236	56.4	-	-	Adjust TWS
NC-AL-027.000 NC-AL-031.000 NC-AL-030.000	MVP-VRA4-158-1237	56.4	-	-	Adjust TWS
NC-AL-027.000 NC-AL-031.000 NC-AL-030.000	MVP-VRA4-158-1215	56.4	56.5	0.1	non-perpendicular alternative Jordan Watershed
NC-AL-027.000 NC-AL-028.000 NC-AL-030.000	MVP-VRA4-158-1323	56.45	-	-	Add ATWS 100' wide. Avoid over lapping of driveway. Give the property line a 1' buffer
NC-AL-027.000 NC-AL-028.000 NC-AL-032.000	MVP-VRA4-190-1205	56.5	-	-	Trim TWS from NC-AL-032.000. Give the property line a 1' buffer

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-027.000 NC-AL-028.000	MVP-VRR4-158-1218	56.51	56.7	0.19	non-perpendicular alternative Jordan Watershed
NC-AL-027.000 NC-AL-028.000	MVP-VRR4-158-1240	56.6	-	-	Adjust TWS
NC-AL-027.000 NC-AL-028.000	MVP-VRR4-158-1241	56.6	-	-	Adjust TWS
NC-AL-027.000 NC-AL-028.000	MVP-VRA4-158-1325	56.7	-	-	Add ATWS 95' x 100' and then 100' x 100'. Stay outside of the environmental buffer and give the property line a 1' buffer
NC-AL-027.000 NC-AL-028.000	MVP-VRA4-158-1326	56.7	-	-	Adjust ATWS 1524 because of the added PI
NC-AL-051.000 NC-AL-052.000	MVP-VRR4-158-1219	58.55	58.8	0.25	non-perpendicular alternative Jordan Watershed
NC-AL-050.000 NC-AL-051.000	MVP-VRA4-158-1327	58.55	-	-	Add ATWS 100' x 200'
NC-AL-051.000	MVP-VRA4-158-1409	58.6	-	-	Add ATWS 100' x 200'
NC-AL-051.000	MVP-VRA4-158-1411	58.6	-	-	Add ATWS 100' wide' bring the south edge to the tree line
NC-AL-052.000	MVP-VRA4-158-1412	58.65	-	-	Add ATWS 100' x 200'
NC-AL-051.000 NC-AL-052.000	MVP-VRR4-158-1242	58.7	-	-	Adjust TWS
NC-AL-051.000 NC-AL-052.000	MVP-VRR4-158-1244	58.7	-	-	Adjust TWS
NC-AL-052.000	MVP-VRA4-158-1425	58.7	-	-	Add ATWS 100' x 200'
NC-AL-068.000.RC NC-AL-069.000	MVP-VRA4-157-1136	60.25	-	-	Change TA-RO-166B to TA-AL-166B. This access road is in Alamance county.
NC-AL-067.001 NC-AL-068.000 NC-AL-068.000.RC	MVP-VRA4-157-1134	60.25	-	-	Change TA-RO-166A to TA-AL-166A. This access road is in Alamance county.
NC-AL-075.000	MVP-VRA4-158-1426	60.7	-	-	Adjust ATWS 1559 because of the added PI
NC-AL-075.000	MVP-VRA4-158-1427	60.7	-	-	Adjust ATWS 1560 because of the added PI
NC-AL-074.000 NC-AL-075.000	MVP-VRR4-158-1221	60.72	60.9	0.18	non-perpendicular alternative Jordan Watershed
C-AL-074.000 NC-AL-075.000	MVP-VRR4-158-1246	60.8	-	-	Adjust TWS
NC-AL-074.000 NC-AL-075.000	MVP-VRR4-158-1245	60.8	-	-	Adjust TWS
NC-AL-074.000 NC-AL-074.100	MVP-VRA4-158-1428	60.8	-	-	Add ATWS 100' x 200'

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-074.000	MVP-VRA4-158-1429	60.84	-	-	Add ATWS 100' x 200'. Stay inside of survey corridor
NC-AL-074.000	MVP-VRA4-158-1430	60.85	-	-	Add ATWS 100' wide. Stay out of environmental buffer
NC-AL-084.000 NC-AL-085.000 NC-AL-086.000	MVP-VRR4-143-0740	62.16	62.5	0.34	Adjust CL to cross streams perpendicular
NC-AL-084.000 NC-AL-085.000	MVP-VRA4-158-1431	62.2	-	-	Add ATWS 100' x 200'
NC-AL-085.000 NC-AL-084.000	MVP-VRA4-158-1433	62.2	-	-	Delete ATWS 1569
NC-AL-085.000	MVP-VRA4-158-1436	62.25	-	-	Add ATWS 100' x 150'
NC-AL-084.000 NC-AL-085.000 NC-AL-086.000	MVP-VRR4-158-1249	62.3	-	-	Adjust TWS
NC-AL-084.000 NC-AL-085.000 NC-AL-086.000	MVP-VRR4-158-1247	62.3	-	-	Adjust TWS
NC-AL-085.000	MVP-VRA4-158-1437	62.3	-	-	Add ATWS 50' x 200'
NC-AL-086.000	MVP-VRA4-193-0947	62.5	-	-	Add TWS and ATWS
NC-AL-086.000	MVP-VRA4-158-1439	62.5	-	-	Add ATWS stay outside of environmental buffer, bring the ATWS to the edge of TA-AL-169
NC-AL-086.000 NC-AL-087.000	MVP-VRA4-143-0904	62.5	-	-	Trim TWS or adjust centerline to remove TWS from this tract. Give the property line a 1' buffer
NC-AL-089.000 NC-AL-092.000 NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRA4-158-1440	62.9	-	-	Add ATWS 100' x 200'
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRR4-143-0743	62.92	63.5	0.58	Adjust CL to cross streams perpendicular Move the PI near Dollar General east so that the TWS isn't on Dollar General's property
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRA4-158-1441	63	-	-	Add ATWS 100' wide. Stay out of the power line ROW and Hwy 62 ROW
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRA4-158-1443	63.05	-	-	Add ATWS 100' x 100'. Stay out of Hwy 62 ROW
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRA4-158-1444	63.1	-	-	Add ATWS 100' wide. Give cell phone tower fence a 5' buffer
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRR4-158-1251	63.2	-	-	Adjust TWS Move the PI near Dollar General east so that the TWS isn't on Dollar General's property

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRR4-158-1250	63.2	-	-	Adjust TWS Move the PI near Dollar General east so that the TWS isn't on Dollar General's property
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000 NC-AL-098.000	MVP-VRA4-179-1501	63.25	-	-	Extend TA-AL-171A to property line.
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000 NC-AL-098.000	MVP-VRA4-179-1458	63.25	-	-	Adjust ATWS 1581 to be in the footprint of the existing LOD. Give the property line of NC-AL-098.000 a 1' buffer
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRA4-158-1446	63.25	-	-	Add ATWS 100' x 100'
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRA4-158-1447	63.3	-	-	Add ATWS 100' x 150'
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRA4-158-1448	63.35	-	-	Add ATWS 100' x 300'
NC-AL-093.000 NC-AL-096.000 NC-AL-097.000	MVP-VRA4-211-1454	63.4	-	-	Trim ATWS 1581A to stay out of environmental buffer
NC-AL-103.000 NC-AL-104.000	MVP-VRA4-149-1443	63.9	-	-	Add ATWS 50' x 150'
NC-AL-103.000 NC-AL-104.000 NC-AL-106.000	MVP-VRR4-149-1432	63.91	64.1	0.19	Adjust CL to cross deep creek perpendicular and up the hill square
NC-AL-103.000 NC-AL-104.000 NC-AL-106.000	MVP-VRA4-149-1439	64	-	-	Adjust TWS
NC-AL-103.000 NC-AL-104.000 NC-AL-106.000	MVP-VRA4-149-1441	64	-	-	Adjust TWS
NC-AL-103.000	MVP-VRA4-149-1444	64	-	-	Add ATWS 70' x 265'
NC-AL-106.000	MVP-VRA4-149-1445	64.05	-	-	Add ATWS
NC-AL-106.000	MVP-VRA4-149-1449	64.1	-	-	Add ATWS 75' x 335' give the property line a 1' buffer
MVF-NC-AL-005.000.RC MVF-NC-AL-007.000	MVP-VRA4-157-1137	64.8	-	-	Change PA-AL-172A to temporary access road. TA-AL-172A
MVF-NC-AL-007.000	MVP-VRA4-157-1139	64.8	-	-	Change PA-AL-175A to temporary access road. TA-AL-175A
MVF-NC-AL-007.000	MVP-VRA4-207-1547	65.3	-	-	Delete ATWS 1588G because of wetland
MVF-NC-AL-007.000	MVP-VRA4-207-1544	65.3	-	-	Adjust ATWS 1588H 100' x 250' and move away from power pole

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
MVF-NC-AL-013.000	MVP-VRA4-207-1548	65.5	-	-	Trim ATWS 1588K to stay outside of environmental buffer
FA34-AL-001.000 FA3-AL-003.000 FA3-AL-005.000 FA3-AL-006.000 FA3-AL-007.000 FA3-AL-008.000 FA3-AL-009.000 NC-AL-127.000	MVP-VRR4-023-1003	65.95	66.7	0.75	Multiple land owners requested for the pipeline to be adjusted
FA34-AL-001.000 FA4-AL-002.000	MVP-VRA4-199-1111	66	-	-	Add ATWS 100' x 200'
FA34-AL-001.000 FA4-AL-002.000	MVP-VRA4-199-1113	66.01	-	-	Add ATWS 100' x 100'
FA34-AL-001.000 FA4-AL-002.000	MVP-VRA4-199-1114	66.05	-	-	Add ATWS 100' x 200'
FA3-AL-003.000	MVP-VRA4-199-1117	66.1	-	-	Adjust ATWS 1588O. Give the property line a 1' buffer
FA3-AL-003.000	MVP-VRA4-199-1118	66.2	-	-	Adjust ATWS 1588Q Give the property line a 1' buffer
FA3-AL-005.000	MVP-VRA4-199-1119	66.3	-	-	Add ATWS 100' x 100'
FA34-AL-001.000 FA4-AL-002.000 FA3-AL-002.000 FA3-AL-003.000 FA3-AL-005.000 FA3-AL-006.000 FA3-AL-007.000 FA3-AL-008.000 NC-AL-127.000 FA3-AL-009.000	MVP-VRA4-199-1055	66.3	-	-	TWS, Give NC-AL-121.000 and FA3-AL-004.000 property line a 1' buffer
FA3-AL-005.000	MVP-VRA4-199-1120	66.31	-	-	Add ATWS 100' x 100'
FA3-AL-006.000	MVP-VRA4-199-1121	66.4	-	-	Add ATWS 100' x 100'
NC-AL-127.000	MVP-VRA4-199-1122	66.5	-	-	Add ATWS 100' wide
NC-AL-127.000	MVP-VRA4-199-1124	66.55	-	-	Add ATWS 100' wide
FA3-AL-009.000	MVP-VRA4-199-1125	66.65	-	-	Adjust 1588V
FA3-AL-009.000	MVP-VRA4-199-1126	66.7	-	-	Add ATWS 100' wide
FA3-AL-009.000	MVP-VRA4-210-1334	66.8	-	-	Trim ATWS 1588W to stay out of environmental buffer
NC-AL-131.000	MVP-VRA4-210-1335	67.1	-	-	Trim ATWS 1588Y1 to stay out of environmental buffer

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-149.000	MVP-VRA4-158-0825	68.95	-	-	Trim ATWS 1646A to be 12.5' x 100'. Stay inside of the survey corridor
NC-AL-158.000 NC-AL-159.000 NC-AL-160.000	MVP-VRA4-129-1557	69.4	-	-	Add ATWS at 25' wide by the width of the property. This is a LO request to remove some additional trees. Give NC-AL-157.000 and NC-AL-161.000 a 1' buffer
NC-AL-166.000 NC-AL-167.000 NC-AL-168.000 NC-AL-174.000 NC-AL-166.000.RR NC-AL-174.130.ABU NC-AL-182.000 NC-AL-184.000 NC-AL-182.100	MVP-VRR4-093-1422	69.5	70	0.5	Re-routing back to the FERC Pre-Filing
NC-AL-166.000	MVP-VRA4-199-1132	69.5	-	-	Adjust ATWS 1653
NC-AL-166.000	MVP-VRA4-211-1455	69.5	-	-	Trim ATWS 1653 to stay out of environmental buffer
NC-AL-165.000	MVP-VRA4-143-1332	69.55	-	-	Trim ATWS 1653A to avoid this new parcel. Give the property line a 1' buffer
NC-AL-167.000	MVP-VRA4-199-1136	69.6	-	-	Add ATWS 75' wide. Stay 26' away from residence
NC-AL-174.000 NC-AL-175.000 NC-AL-177.000 NC-AL-178.000	MVP-VRA4-190-1207	69.7	-	-	Delete ATWS 1653B
NC-AL-170.300	MVP-VRA4-210-1337	69.7	-	-	Trim ATWS 1653A to stay out of environmental buffer
NC-AL-174.000 NC-AL-174.400 NC-AL-174.500.ABU NC-AL-174.300 NC-AL-174.100 NC-AL-174.200	MVP-VRA4-199-1139	69.7	-	-	Add ATWS 100' wide
NC-AL-174.000 NC-AL-174.100	MVP-VRA4-199-1137	69.7	-	-	Add ATWS
NC-AL-174.000	MVP-VRA4-199-1141	69.75	-	-	Add ATWS
NC-AL-166.000.RR NC-AL-182.000	MVP-VRR4-114-1358	69.8	-	-	Add access road
NC-AL-174.130.ABU	MVP-VRA4-199-1142	69.8	-	-	Add ATWS 50' wide
NC-AL-166.000 NC-AL-167.000 NC-AL-168.000 NC-AL-174.000 NC-AL-166.000.RR NC-AL-174.130.ABU NC-AL-182.000 NC-AL-184.000 NC-AL-182.100	MVP-VRA4-199-1129	69.8	-	-	Perm. Row and TWS

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-182.000 NC-AL-174.130.ABU	MVP-VRA4-199-1143	69.85	-	-	Add ATWS
NC-AL-166.000.RR NC-AL-182.000 NC-AL-183.000	MVP-VRR4-114-1400	69.9	-	-	Add access road
NC-AL-184.000 NC-AL-182.100 NC-AL-182.000	MVP-VRA4-199-1145	69.9	-	-	Add ATWS
NC-AL-182.000 NC-AL-184.000 NC-AL-182.100	MVP-VRA4-199-1147	69.91	-	-	Add ATWS
NC-AL-184.000	MVP-VRA4-199-1159	69.92	-	-	Add ATWS 75' x 75'
NC-AL-184.000	MVP-VRA4-199-1200	69.95	-	-	Adjust ATWS 1653F to be 50' x 300'
NC-AL-184.000 NC-AL-185.000	MVP-VRA4-158-1450	70.15	-	-	Move ATWS 1661
NC-AL-185.000 NC-AL-186.000	MVP-VRR4-158-1224	70.17	70.3	0.13	non-perpendicular alternative Jordan Watershed
NC-AL-186.000	MVP-VRR4-186-1022	70.2	-	-	Add ATWS 60' x 225'
NC-AL-185.000 NC-AL-186.000	MVP-VRA4-158-1254	70.2	-	-	Change working side to the west
NC-AL-185.000 NC-AL-186.000	MVP-VRA4-158-1252	70.2	-	-	Change working side to the west
NC-AL-186.000	MVP-VRA4-211-1457	70.2	-	-	Add neck down for stream
NC-AL-186.000	MVP-VRA4-186-1024	70.3	-	-	Add ATWS 50' x 125'
NC-AL-186.000	MVP-VRA4-186-1026	70.3	-	-	Move ATWS 1662
NC-AL-191.000	MVP-VRA4-151-1228	70.9	-	-	Add ATWS 25' x 100' for pull off. Split pull off all to both sides of TA-AL-189. Stay inside of survey corridor
NC-AL-191.000	MVP-VRA4-151-1230	70.9	-	-	Add ATWS 25' x 100' for pull off. Split pull off all to both sides of TA-AL-189. Stay inside of survey corridor
NC-AL-190.000 NC-AL-191.000	MVP-VRA4-210-1338	70.9	-	-	Move ATWS 1669 north to stay out of environmental buffer
NC-AL-197.000	MVP-VRA4-151-1231	72.2	-	-	Add ATWS 12.5' x 100' for pull off. Keep pull off south of TA-AL-192. Stay inside of survey corridor
NC-AL-199.000	MVP-VRA4-151-1232	72.45	-	-	Add ATWS 25' x 100' for pull off. Split pull off all to both sides of TA-AL-193. Stay inside of survey corridor
NC-AL-199.000	MVP-VRA4-143-0906	72.5	-	-	Adjust TA-AL-193 to stay off this tract (NC-AL-199.100). Give the property line a 1' buffer. Stay inside of survey corridor

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-001.000	MVP-VRA4-133-1456	CY-01	-	-	Trim out the area that overlaps with the layer "Transco Road Net Conservation Site". Give the shape of the Transco Road Net Conservation Site a 1' buffer
	MVP-VRR4-154-1000	CY-19	-	-	Add access road for CY-19
	MVP-VRR4-154-0958	CY-19	-	-	Add access road for CY-19
VA-PI-207	MVP-VRA4-151-1411	CY-19	-	-	Trim CY-19 to be 26' away from residence
	MVP-VRR4-154-1001	CY-22	-	-	Add access road for CY-22
	MVP-VRR4-154-1003	CY-22	-	-	Add access road for CY-22
VA-PI-218	MVP-VRA4-151-1442	CY-22	-	-	Trim CY-22 to be 26' away from residence
	MVP-VRR4-154-1004	CY-25	-	-	Add access road for CY-25
	MVP-VRR4-154-1011	CY-25	-	-	Add access road for CY-25
NC-CA-001.000.CY25	MVP-VRA4-154-1007	CY-25	-	-	Add access road to access other half of CY-25
NC-CA-001.000.CY25	MVP-VRA4-154-1009	CY-25	-	-	Add access road to access other half of CY-25
NC-CA-001.000.CY25	MVP-VRA4-154-1010	CY-25	-	-	Add access road to access other half of CY-25
NC-AL-227	MVP-VRR4-154-1012	CY-26	-	-	Add access road for CY-26
NC-AL-227	MVP-VRR4-154-1014	CY-26	-	-	Add access road for CY-26
NC-AL-226	MVP-VRA4-154-1015	CY-26	-	-	Add access road to access other half of CY-26
VA-PI-002.000	MVP-VRA5-218-1328	0	0.1	0.1	Adjusted the centerline of easement (“CL”) to be 25 feet away from H-605.
VA-PI-092.000 VA-PI-092.100 VA-PI-092.200	MVP-VRR5-214-1049	14.2	-	-	Adjusted TA-PI-035 to avoid VA-PI-092.100. Added turning flares to the corners because of the back to back turns.
VA-PI-104.100 VA-PI-106.000	MVP-VRA5-228-1631	15.95	-	-	Trimmed additional temporary workspace (“ATWS”) 1126 to avoid VA-PI-104.100. Change avoids one landowner.
VA-PI-121.000	MVP-VRA5-234-1420	17.8	-	-	Trimmed temporary workspace (“TWS”) out of environmental buffer.
VA-PI-169.000	MVP-VRA5-227-0840	22	-	-	Trimmed a 25-foot x 25-foot area from ATWS 1169 to minimize impacts on septic.
VA-PI-174.000	MVP-VRA5-217-1124	23.05	-	-	Added neck down for wetland.

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-174.000	MVP-VRA5-217-1125	23.15	-	-	Trimmed ATWS 1173G out of environmental buffer.
VA-PI-178.000	MVP-VRA5-217-1026	23.9	-	-	Trimmed ATWS 1173P out of environmental buffer.
NC-RO-006.000	MVP-VRR5-221-1633	27.6	27.7	0.1	Adjusted the CL to be parallel to Transco's existing pipelines.
NC-RO-006.000	MVP-VRA5-249-1433	28.2	-	-	Adjusted permanent easement to LN 3600 for tie-in.
NC-RO-006.000	MVP-VRA5-249-1435	28.2	-	-	Adjusted temporary easement to LN 3600 for tie-in.
NC-RO-006.000	MVP-VRA5-249-1437	28.2	-	-	Adjusted PA-RO-000.
NC-RO-006.000	MVP-VRA5-262-1208	28.2	-	-	Adjusted permanent easement to LN 3600 (for tie-in.
NC-RO-011.000	MVP-VRA5-213-1621	29.9	-	-	Trimmed ATWS 1247D out of environmental buffer.
NC-RO-037.000	MVP-VRA5-246-0901	32.1	-	-	Added TWS for typical construction.
NC-RO-038.000 NC-RO-038.025 NC-RO-038.050	MVP-VRA5-226-1008	32.4	-	-	Adjusted TA-RO-085 to be 15-feet wide and removed from NC-RO-038.025 and NC-RO-038.030. Added 1-foot property line buffers.
NC-RO-038.000	MVP-VRA5-246-0922	32.5	-	-	Added TWS for typical construction.
NC-RO-038.000	MVP-VRA5-246-0935	32.5	-	-	Deleted ATWS 1268.
NC-RO-061.000	MVP-VRA5-213-1623	36	-	-	Trimmed ATWS 1303A out of environmental buffer.
NC-RO-112.000	MVP-VRA5-234-1422	41.6	-	-	Trimmed ATWS 1369 out of environmental buffer.
NC-RO-111.000.RC	MVP-VRA5-234-1423	41.6	-	-	Trimmed TWS out of environmental buffer.
NC-GU-001.000 NC-RO-181.000	MVP-VRA5-234-1532	42.4	-	-	Added ATWS 100-feet x 100 feet for stream crossing.
NC-RO-117.000 NC-RO-116.000	MVP-VRA5-226-1010	42.4	-	-	Trimmed ATWS 1379B off of NC-RO-116.000. Added 1-foot property line buffer.
NC-RO-133.200	MVP-VRA5-213-1627	43.8	-	-	Trimmed ATWS 1395 out of environmental buffer.
NC-RO-143.000	MVP-VRA5-234-1424	46.05	-	-	Added ATWS 100-foot x 100-foot for stream crossing.
NC-RO-143.000	MVP-VRA5-234-1426	46.1	-	-	Trimmed TWS for environmental neck down
NC-RO-143.000	MVP-VRA5-234-1425	46.1	-	-	Extended ATWS 1420.
NC-RO-143.000	MVP-VRA5-234-1433	46.2	-	-	Added ATWS 100-feet wide for stream crossing.

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-RO-143.000	MVP-VRA5-234-1435	46.2	-	-	Trimmed TWS for environmental neck down.
NC-RO-143.000	MVP-VRA5-234-1530	46.25	-	-	Added ATWS 100-feet x 100-feet stream crossing.
NC-RO-148.505	MVP-VRA5-217-1031	46.7	-	-	Moved ATWS 1426B east to avoid environmental buffer.
NC-GU-001.000	MVP-VRA5-234-1531	52.35	-	-	Added ATWS 100 feet x 100-feet for stream crossing.
NC-GU-001.000	MVP-VRA5-234-1533	52.4	-	-	Trimmed TWS for environmental neck down.
NC-AL-000.005 NC-RO-186.000	MVP-VRA5-235-1650	52.6	-	-	Deleted TA-RO-146A.
NC-AL-000.005	MVP-VRA5-213-1629	52.7	-	-	Trimmed ATWS 1480 out of environmental buffer.
NC-AL-010.000	MVP-VRA5-234-1536	55.3	-	-	Trimmed ATWS 1507D out of environmental buffer.
NC-AL-010.000	MVP-VRA5-234-1538	55.3	-	-	Trimmed TWS out of environmental buffer.
NC-AL-010.000	MVP-VRA5-234-1535	55.3	-	-	Moved ATWS 1507C out of environmental buffer.
NC-AL-053.000	MVP-VRA5-211-1439	59	-	-	Added ATWS 100-feet x 200-feet for point of inflection (“PI”) construction.
NC-AL-053.000 NC-AL-055.000 NC-AL-061.000 NC-AL-062.000 NC-AL-063.000 NC-AL-064.000	MVP-VRA5-211-1436	59	-	-	Modified workspace and limit of disturbance (“LOD”) per landowner request.
NC-AL-053.000 NC-AL-055.000 NC-AL-061.000 NC-AL-062.000 NC-AL-063.000 NC-AL-064.000	MVP-VRR5-094-0903	59	59.6	0.6	Modified the CL per landowner request.
NC-AL-055.000	MVP-VRA5-211-1440	59.2	-	-	Added ATWS 60-feet x 200-feet for PI construction.
NC-AL-055.000	MVP-VRA5-211-1442	59.25	-	-	Added ATWS 100-feet x 200-feet for road crossing.
NC-AL-060.000 NC-AL-061.000	MVP-VRA5-211-1443	59.3	-	-	Added ATWS 100-feet x 100-feet for road crossing.
NC-AL-062.000 NC-AL-064.000	MVP-VRA5-211-1445	59.6	-	-	Deleted ATWS 1552.
NC-AL-074.000	MVP-VRA5-234-1539	60.8	-	-	Trimmed TWS out of environmental buffer.
NC-AL-077.000	MVP-VRA5-234-1542	61.3	-	-	Added ATWS 100-feet x 100-feet for stream crossing.

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-077.000	MVP-VRA5-234-1543	61.3	-	-	Trimmed TWS for environmental neck down.
NC-AL-077.000	MVP-VRA5-234-1551	61.35	-	-	Added ATWS 100-feet x 100-feet for stream crossing.
NC-AL-077.000	MVP-VRA5-234-1552	61.35	-	-	Deleted ATWS 1562.
NC-AL-103.000	MVP-VRA5-234-1553	63.8	-	-	Trimmed ATWS 1584 out of environmental buffer.
NC-AL-103.000 NC-AL-104.000	MVP-VRA5-234-1555	63.9	-	-	Trimmed ATWS 1587 out of the environmental buffer.
NC-AL-104.000	MVP-VRA5-234-1556	63.9	-	-	Trimmed TWS out of environmental buffer.
NC-AL-106.000	MVP-VRA5-234-1557	64.1	-	-	Revised ATWS.
NC-AL-106.000	MVP-VRA5-234-1559	64.1	-	-	Deleted ATWS 1587B.
NC-AL-106.000	MVP-VRA5-234-1601	64.1	-	-	Trimmed TWS out of environmental buffer.
NC-AL-106.000	MVP-VRA5-234-1600	64.1	-	-	Trimmed ATWS 1587C out of environmental buffer.
MVF-NC-AL-007.000 MVF-NC-AL-010.000	MVP-VRR5-107-0843	64.8	65.05	0.25	Modified the CL per landowner request.
MVF-NC-AL-007.000	MVP-VRA5-207-1532	64.8	-	-	Adjusted ATWS 1588E 100-feet x 250-feet.
MVF-NC-AL-007.000	MVP-VRA5-207-1529	64.8	-	-	Modified workspace and LOD per landowner request.
MVF-NC-AL-007.000	MVP-VRA5-207-1533	64.9	-	-	Added ATWS for PI construction and stream crossing.
MVF-NC-AL-007.000	MVP-VRA5-207-1536	65	-	-	Added ATWS 100-feet x 260-feet for PI construction and stream crossing.
MVF-NC-AL-007.000	MVP-VRA5-207-1539	65.05	-	-	Trimmed TWS for environmental neck down.
MVF-NC-AL-007.000	MVP-VRA5-207-1542	65.1	-	-	Trimmed TWS for environmental neck down.
MVF-NC-AL-007.000	MVP-VRA5-207-1540	65.1	-	-	Added ATWS 100-feet wide for stream crossing.
MVF-NC-AL-007.000	MVP-VRA5-207-1543	65.15	-	-	Extended ATWS 1588FF to the edge of the neck down.
FA3-AL-009.000	MVP-VRA5-248-1445	66.55	-	-	Adjusted ATWS 1588V.
FA3-AL-009.000 NC-AL-127.000 NC-AL-128.000 NC-AL-129.000 NC-AL-131.000 NC-AL-132.000	MVP-VRR5-248-1439	66.55	-	-	Adjusted TWS out of the environmental buffer. Adjusted TWS to be 25-feet away from the base of the electric tower.

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-133.000 NC-AL-134.000 NC-AL-135.000 NC-AL-136.000 NC-AL-137.000					
NC-AL-127.000	MVP-VRA5-234-1603	66.6	-	-	Trimmed TWS and ATWS 1588U1 out of environmental buffer.
FA3-AL-009.000	MVP-VRA5-248-1446	66.6	-	-	Added ATWS 100-feet x 200-feet.
FA3-AL-009.000 NC-AL-127.000	MVP-VRA5-234-1604	66.65	-	-	Trimmed TWS out of environmental buffer.
FA3-AL-009.000	MVP-VRA5-248-1447	66.65	-	-	Added ATWS 100-feet x 100-feet for stream crossing. Added a 1-foot property line buffer.
FA3-AL-009.000 NC-AL-127.000 NC-AL-128.000 NC-AL-129.000 NC-AL-131.000 NC-AL-132.000 NC-AL-133.000 NC-AL-134.000 NC-AL-135.000 NC-AL-136.000 NC-AL-137.000	MVP-VRR5-248-1443	66.65	67.6	0.95	Adjusted CL to be further away from the Martin Marietta Materials Inc. property line.
FA3-AL-009.000	MVP-VRA5-248-1448	66.7	-	-	Added ATWS 100-feet wide for stream crossing with 1-foot property line buffer.
NC-AL-127.000 NC-AL-129.000	MVP-VRA5-248-1449	66.8	-	-	Added ATWS for PI construction with 1-foot property line buffer.
NC-AL-129.000	MVP-VRA5-248-1451	66.9	-	-	Added ATWS 1588Y around PI 100-feet x 200-feet.
NC-AL-129.000	MVP-VRA5-248-1453	67	-	-	Added ATWS for PI construction.
NC-AL-131.000	MVP-VRA5-248-1457	67.05	-	-	Added ATWS 100-feet x 100-feet for PI construction.
NC-AL-131.000	MVP-VRA5-234-1606	67.1	-	-	Trimmed TWS out of environmental buffer.
NC-AL-131.000	MVP-VRA5-248-1504	67.1	-	-	Adjusted ATWS 1588Y2 to be 100-feet wide.
NC-AL-131.000	MVP-VRA5-248-1505	67.11	-	-	Added ATWS to stay 25-feet away from electric tower base.
NC-AL-132.000	MVP-VRA5-248-1506	67.2	-	-	Added ATWS for stream crossing with 1-foot property line buffer.
NC-AL-132.000	MVP-VRA5-248-1508	67.2	-	-	Trimmed ATWS 1588Y3 to compensate for current CL.
NC-AL-132.000	MVP-VRA5-248-1509	67.25	-	-	Added ATWS 100-feet x 100-feet for stream crossing.
NC-AL-133.000 NC-AL-134.000	MVP-VRA5-248-1510	67.4	-	-	Added ATWS 100-feet x 200-feet for PI construction.

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
NC-AL-133.000 NC-AL-136.000 NC-AL-137.000	MVP-VRA5-248-1511	67.5	-	-	Adjusted ATWS 1588Z1 100-feet x 200-feet.
NC-AL-136.000 NC-AL-137.000	MVP-VRA5-234-1607	67.6	-	-	Deleted ATWS 1619B.
NC-AL-139.000	MVP-VRA5-234-1609	67.9	-	-	Added ATWS for stream crossing.
NC-AL-139.000	MVP-VRA5-234-1610	67.9	-	-	Trimmed TWS for environmental neck down.
NC-AL-140.000 NC-AL-141.000	MVP-VRA5-234-1611	68.1	-	-	Moved ATWS 1623 north out of environmental buffer.
NC-AL-142.000	MVP-VRA5-234-1614	68.1	-	-	Trimmed ATWS 1624 out of environmental buffer.
NC-AL-142.000	MVP-VRA5-234-1612	68.1	-	-	Moved ATWS 1623A south out of environmental buffer.
NC-AL-142.000	MVP-VRA5-234-1615	68.1	-	-	Trimmed TWS out of environmental buffer.
NC-AL-144.000 NC-AL-145.000	MVP-VRA5-226-1011	68.5	-	-	Trimmed TWS and ATWS 1635 at driveway and provided a 5-foot buffer.
NC-AL-144.000	MVP-VRA5-212-1139	68.6	-	-	Adjusted ATWS 1636 to avoid barn and large tree.
NC-AL-148.000	MVP-VRA5-213-1630	68.8	-	-	Trimmed ATWS 1641 out of environmental buffer.
NC-AL-148.000	MVP-VRA5-213-1631	68.9	-	-	Trimmed ATWS 1645 out of environmental buffer.
NC-AL-149.000 NC-AL-150.000	MVP-VRA5-246-0946	69.05	-	-	Added TWS for road bore.
NC-AL-166.000 NC-AL-167.000 NC-AL-165.000	MVP-VRA5-212-1140	69.5	-	-	Deleted TA-AL-187 and the ATWS pull offs.
NC-AL-188.000	MVP-VRA5-246-0948	70.5	-	-	Added TWS for typical construction.
NC-AL-191.000	MVP-VRA5-213-1633	71.05	-	-	Trimmed ATWS 1675 out of environmental buffer.
NC-AL-194.000	MVP-VRA5-249-1101	71.9	72	0.1	Adjusted the pipeline CL to avoid large tree.
NC-AL-194.000	MVP-VRA5-249-1103	71.9	-	-	Adjusted the workspace to avoid large tree, keep workspace 90-feet away from the tree canopy.
NC-AL-207.000	MVP-VRA5-248-1354	72.9	-	-	Trimmed TWS to avoid mobile home.
NC-AL-210.000	MVP-VRA5-221-1540	73.17	-	-	Gave the property line a 1-foot buffer.
VA-PI-142.200	MVP-VRA5-218-1533	CY-03	-	-	Trimmed Contractor Yard (“CY”)-03 out of environmental buffer.

REVISED Table 10.6-4

Route Variations Incorporated into the MVP Southgate Project Pipeline

Tract ID	Reroute No.	Approx. Begin MP	Approx. End MP	Length (miles)	Variation Description / Justification
VA-PI-142.200	MVP-VRA5-218-1534	CY-03	-	-	Trimmed CY-03 out of environmental buffer.
NC-RO-001.300	MVP-VRA5-218-1536	CY-05	-	-	Trimmed CY-05 out of environmental buffer.
NC-RO-001.300 NC-RO-001.400	MVP-VRA5-218-1537	CY-05	-	-	Trimmed CY-05 out of environmental buffer.
	MVP-VRA5-212-1129	CY-25A	-	-	Deleted TA-CA-105D.
NC-CA-001.000	MVP-VRA5-213-1129	CY-25A	-	-	Deleted TA-CA-105A.
NC-CA-001.000	MVP-VRA5-213-1134	CY-25A	-	-	Deleted TA-CA-105B.
NC-CA-001.000	MVP-VRA5-213-1135	CY-25A	-	-	Deleted TA-CA-105C.
NC-CA-001.000	MVP-VRA5-213-1136	CY-25A	-	-	Deleted CY-25A.
NC-CA-001.000	MVP-VRA5-225-1110	CY-25B	-	-	Reduced size of CY-25B to approx. 25 acres.
NC-AL-226 NC-AL-227	MVP-VRA5-218-1540	CY-26	-	-	Trimmed CY-26 out of environmental buffer.
NC-AL-226 NC-AL-227	MVP-VRA5-218-1542	CY-26	-	-	Trimmed CY-26 out of environmental buffer.

REVISED Table 136-1

Comparison of the Current Route (September 2019) and Whitehead Variation (MP 3.65 to MP 5.1)

Feature	Current Route (September 2019)	Whitehead Variation	Difference
Total length (miles)	1.5	1.8	+0.3
Construction right-of-way (acres) a/	18.1	21.5	+3.4
Permanent right-of-way (acres) a/	9	10.7	+1.7
Total number of parcels crossed	10	12	+2
Number of residences within 25 and 50 feet of the edge of the construction ROW	0/0	0/0	0/0
Residential Land (miles)	0	0	0
Commercial/Industrial Land (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	1	0	-1
Number of waterbodies crossed	2	1	-1
Number of NWI wetlands crossed	1	1	0
Total NWI wetland crossing length (feet)	200	315	+115
NWI wetlands within construction ROW (acres) b/	0.3	0.5	+0.2
Agricultural Land within construction ROW (acres) c/	2.7	8.4	+5.7
Forest Areas (miles)	0.3	0.6	+0.3
Forested Land affected during construction (acres)	4.8	7.5	+2.7
Forested Land affected during operation (acres)	2.2	3.7	+1.5
Length adjacent to existing ROW (miles)	0.6	0	-0.6

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
USGS – U.S. Geological Survey - http://www.usgs.gov/
NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

Table 38-1a Comparison of the Current Route (September 2019) and Shambley Variation 1 (MP 59.0 – 59.58)
In its *May 13, 2019 Responses to Environmental Information Request #2*, the Project evaluated Shambley Variation 1 (MP 59.0 – 59.58) in Alamance County, North Carolina, to avoid or reduce impacts at the Shambley property where they plan to construct a new home and install a septic system. In its *June 21, 2019 Responses to Post-Application Environmental Information Request #3*, the Project provided an updated analysis for the Shambley Variation 1 (MP 59.0 – 59.58). Since the June 2019 filing, the Project adopted and incorporated portions of the Shambley Variation 1 into its preferred pipeline route. Therefore, the Shambley Variation 1 has been eliminated from the analysis as it is no longer applicable.

Table 38-1b

Comparison of the Current Route (September 2019) and Shambley Variation 2 (MP 59.40 to MP 59.77)

In its *May 13, 2019 Responses to Environmental Information Request #2*, the Project evaluated Shambley Variation 2 (MP 59.4 to MP 59.77) in Alamance County, North Carolina, to avoid or reduce impacts at the Shambley property where they plan to construct a new home and install a septic system. In its *June 21, 2019 Responses to Post-Application Environmental Information Request #3*, the Project provided an updated analysis for the Shambley Variation 2 (MP 59.40 to MP 59.77). This variation was compared to the May 2019 pipeline route where it deviated from and rejoined the May 2019 pipeline route between approximate MP 59.40 to MP 59.77. Since the June 2019 filing, the Project adopted and incorporated portions of the Shambley Variation 1 into its preferred pipeline route. As a result, the May 2019 pipeline route in this area is no longer relevant and the Shambley Variation 2 has been eliminated from the analysis as it is no longer applicable.

Table 138-1 Comparison of the Current Route (September 2019) and Bombardier Variation (MP 59.0 to MP 59.4)
In its *March 28, 2019 Supplemental Filing*, the Project evaluated Bombardier Variation (MP 59.0 to MP 59.4) in Alamance County, North Carolina, to avoid Bombardier's property. Because the primary disadvantages outweighed the primary advantages, the Project eliminated the Bombardier Variation from further consideration as its preferred pipeline route. In its *June 21, 2019 Responses to Post-Application Environmental Information Request #3*, the Project provided an updated analysis for the Bombardier Variation (MP 59.0 to MP 59.4). This variation was compared to the May 2019 pipeline route where it deviated from and rejoined the May 2019 pipeline route between approximate MP 59.0 to MP 59.4. Since the June 2019 filing, the Project adopted and incorporated portions of the Shambley Variation 1 into its preferred pipeline route. As a result, the May 2019 pipeline route in this area is no longer relevant and the Bombardier Variation has been eliminated from the analysis as it is no longer applicable.

REVISED Table 138b-1

Comparison of the Current Route (September 2019) and Moore Variation (MP 33.1 to MP 33.9)

Feature	Current Route (September 2019)	Moore Variation	Difference
Total length (miles)	0.8	0.9	+0.1
Construction right-of-way (acres) a/	10.4	11.4	+1
Permanent right-of-way (acres) a/	5.2	5.7	+0.5
Total number of parcels crossed	4	8	+4
Number of residences within 25 and 50 feet of the edge of the construction ROW	0/0	0/0	0/0
Residential Land (miles)	0	0	0
Commercial/Industrial Land (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of waterbodies crossed	2	2	0
Number of NWI wetlands crossed	0	0	0
Total NWI wetland crossing length (feet)	0	0	0
NWI wetlands within construction ROW (acres) b/	0	0	0
Agricultural Land within construction ROW (acres) c/	4.6	1.8	-2.8
Forest Areas (miles)	0.3	0.7	+0.4
Forested Land affected during construction (acres)	3.8	8.4	+4.6
Forested Land affected during operation (acres)	1.8	4.2	+2.4
Length adjacent to existing ROW (miles)	0.7	0	-0.7

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
USGS – U.S. Geological Survey - http://www.usgs.gov/
NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 138f-1

Comparison of the Current Route (September 2019) and Nicholson Variation (MP 3.65 to MP 4.0)

Feature	Current Route (September 2019)	Nicholson Variation	Difference
Total length (miles)	0.4	0.7	+0.3
Construction right-of-way (acres) a/	4.7	8.9	+4.2
Permanent right-of-way (acres) a/	2.3	4.4	+2.1
Total number of parcels crossed	4	5	+1
Number of residences within 25 and 50 feet of the edge of the construction ROW	0/0	0/0	0/0
Residential Land (miles)	0	0	0
Commercial/Industrial Land (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of waterbodies crossed	0	0	0
Number of NWI wetlands crossed	0	0	0
Total NWI wetland crossing length (feet)	0	0	0
NWI wetlands within construction ROW (acres) b/	0	0	0
Agricultural Land within construction ROW (acres) c/	2.3	6.5	+4.2
Forest Areas (miles)	0	0	0
Forested Land affected during construction (acres)	0.1	0	-0.1
Forested Land affected during operation (acres)	0	0	0
Length adjacent to existing ROW (miles)	0	0	0

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
USGS – U.S. Geological Survey - http://www.usgs.gov/
NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

REVISED Table 138g-1

Comparison of the Current Route (September 2019) and Madrin Variation (MP 58.1 to MP 58.9)

Feature	Current Route (September 2019)	Madrin Variation	Difference
Total length (miles)	0.8	1.2	+0.4
Construction right-of-way (acres) a/	10.4	14.7	+4.3
Permanent right-of-way (acres) a/	5.2	7.3	+2.1
Total number of parcels crossed	6	7	+1
Number of residences within 25 and 50 feet of the edge of the construction ROW	0/0	0/0	0/0
Residential Land (miles)	0	0	0
Commercial/Industrial Land (miles)	0	0	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of waterbodies crossed	1	2	+1
Number of NWI wetlands crossed	1	2	+1
Total NWI wetland crossing length (feet)	20	46	+26
NWI wetlands within construction ROW (acres) b/	0.1	0.1	0
Agricultural Land within construction ROW (acres) c/	5	3.6	-1.4
Forest Areas (miles)	0.4	0.8	+0.4
Forested Land affected during construction (acres)	5.5	9.7	+4.2
Forested Land affected during operation (acres)	2.7	4.9	+2.2
Length adjacent to existing ROW (miles)	0	0.2	+0.2

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
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Table 1

Comparison of the Current Route (September 2019) and Martin Marietta Variation 1 (MP 66.96 – 67.12)

In its *May 22, 2019 Supplemental Filing*, the Project evaluated Martin Marietta Variation 1 (MP 66.96 – 67.12) in Alamance County, North Carolina, to relocate the May 2019 pipeline route to the west, further from the East Alamance Quarry, which is owned and operated by Martin Marietta Materials Inc. The Martin Marietta Variation 1 did not offer a significant environmental advantage over the May 2019 pipeline route. However, in its *June 21, 2019 Responses to Post-Application Environmental Information Request #3*, the Project provided an updated analysis for the Martin Marietta Variation 1 (MP 66.96 – 67.12). This variation was compared to the May 2019 pipeline route where it deviated from and rejoined the May 2019 pipeline route between approximate MP 66.96 – 67.12. Since the June 2019 filing, the Project adopted and incorporated various route variations, including portions of the Martin Marietta Variation 1, into its preferred pipeline route. As a result, the May 2019 pipeline route in this area is no longer relevant and the Martin Marietta Variation 1 has been eliminated from the analysis as it is no longer applicable.

Table 2

Comparison of the Current Route (September 2019) and Martin Marietta Variation 2 (MP 66.7 – 67.5)

In its *May 22, 2019 Supplemental Filing*, the Project evaluated Martin Marietta Variation 2 (MP 66.7 – 67.5) in Alamance County, North Carolina, to relocate the May 2019 pipeline route approximately 100 feet to the east. The Martin Marietta Variation 2 did not offer a significant environmental advantage over the May 2019 pipeline route. However, in its *June 21, 2019 Responses to Post-Application Environmental Information Request #3*, the Project provided an updated analysis for the Martin Marietta Variation 2 (MP 66.7 – 67.5). This variation was compared to the May 2019 pipeline route where it deviated from and rejoined the May 2019 pipeline route between approximate MP 66.7 – 67.5. Since the June 2019 filing, the Project adopted and incorporated various route variations, including portions of the Martin Marietta Variation 1, into its preferred pipeline route. As a result, the May 2019 pipeline route in this area is no longer relevant and the Martin Marietta Variation 2 has been eliminated from the analysis as it is no longer applicable.

REVISED Table 3

Comparison of the Current Route (Formerly Town of Haw River Variation) and Previous Route (May 2019)

Feature	Current Route (September 2019)	Previous Route (May 2019)	Difference
Total length (miles)	0.4	0.5	+0.1
Construction right-of-way (acres) a/	5.3	6.3	+1.0
Permanent right-of-way (acres) a/	2.6	3.1	+0.5
Total number of parcels crossed	11	9	-2
Number of residences within 25 and 50 feet of the edge of the construction ROW	3/3	2/3	-1/0
Residential Land (miles)	0	0	0
Commercial/Industrial land (miles)	0.2	0	-0.2
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	1	1	0
Number of waterbodies crossed	1	1	0
Number of NWI wetlands crossed	0	0	0
Total NWI wetland crossing length (feet)	0	0	0
NWI wetlands within construction ROW (acres) b/	0	0	0
Agricultural land within construction ROW (acres) c/	0	0	0
Forest Areas (miles)	0.1	0.1	0
Forested land affected during construction (acres)	2.0	1.8	-0.2
Forested land affected during operation (acres)	1	0.9	-0.1
Length adjacent to existing ROW (miles)	0	0	0

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
c/ Includes pasture/hay and cultivated crops.
ROW = right-of-way. NWI = National Wetland Inventory
Information Sources:
GIS – Analysis based on Geodatabase layers and shapefiles.
NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
NLCD – 2016 National Land Cover Dataset - https://www.mrlc.gov/data/nlcd-2016-land-cover-conus
NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/
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MVP Southgate Project

Docket No. CP19-14-000

Resource Report 11 Table Updates

October 2019

LIST OF TABLES

REVISED [Oct 2019] - Table 11.2-1

MVP Southgate Project Pipeline Class Locations

Pipeline / County	Class Location	Beginning Approx. Milepost	Ending Approx. Milepost
H-605 Pipeline			
Pittsylvania	1	0.00	0.47
H-650 Pipeline			
Pittsylvania	1	0.00 RR	2.91
Pittsylvania	2	2.91	3.36
Pittsylvania	1	3.36	3.54
Pittsylvania	2	354	4.24
Pittsylvania	3	4.24	4.31
Pittsylvania	2	4.31	4.39
Pittsylvania	1	4.39	7.03
Pittsylvania	2	7.03	7.58
Pittsylvania	1	7.58	7.90
Pittsylvania	2	7.90	8.19
Pittsylvania	1	8.19	10.05
Pittsylvania	2	10.05	10.85
Pittsylvania	1	10.85	13.05
Pittsylvania	2	13.05	13.61 RR
Pittsylvania	1	13.61 RR	15.31
Pittsylvania	2	15.31	15.35 RR
Pittsylvania	1	15.35 RR	15.79
Pittsylvania	2	15.79	17.12
Pittsylvania	1	17.12	18.20
Pittsylvania	2	18.20	18.40
Pittsylvania	1	18.40	18.67
Pittsylvania	2	18.67	18.88
Pittsylvania	1	18.88	18.93
Pittsylvania	2	18.93	19.43
Pittsylvania	3	19.43	19.53
Pittsylvania	2	19.53	19.92
Pittsylvania	3	19.92	19.97
Pittsylvania	2	19.97	20.41
Pittsylvania	1	20.41	20.56
Pittsylvania	2	20.56	20.77
Pittsylvania	1	20.77	26.10
Rockingham	1	26.10	30.36
Rockingham	2	30.36	31.11
Rockingham	1	31.11	31.44
Rockingham	2	31.44	32.11
Rockingham	1	31.11	35.91
Rockingham	2	35.91	36.76
Rockingham	1	36.76	37.34

REVISED [Oct 2019] - Table 11.2-1

MVP Southgate Project Pipeline Class Locations

Pipeline / County	Class Location	Beginning Approx. Milepost	Ending Approx. Milepost
Rockingham	2	37.34	37.54
Rockingham	1	37.54	37.76
Rockingham	2	37.76	37.95
Rockingham	1	37.95	38.04
Rockingham	2	38.04	38.31
Rockingham	1	38.31	38.48
Rockingham	2	38.48	38.63
Rockingham	1	38.63	39.48
Rockingham	2	39.48	39.82
Rockingham	1	39.82	40.19
Rockingham	2	40.19	40.75
Rockingham	1	40.75	42.08
Rockingham	2	42.08	42.48
Rockingham	1	42.48	43.00
Rockingham	2	43.00	43.25
Rockingham	1	42.25	44.21
Rockingham	2	44.21	45.11
Rockingham	1	45.11	48.32
Rockingham	2	48.32	48.68
Rockingham	1	48.68	49.00
Rockingham	2	49.00	49.44
Rockingham	1	49.44	52.50
Rockingham	2	52.50	52.64
Alamance	2	52.64	53.62
Alamance	1	53.62	54.94
Alamance	2	51.94	55.27 RR
Alamance	1	55.27 RR	55.54 RR
Alamance	2	55.54 RR	55.60
Alamance	1	55.60	55.69
Alamance	2	55.69	55.82
Alamance	1	55.82	56.39
Alamance	2	56.39	56.57 RR
Alamance	1	56.57 RR	56.73
Alamance	2	56.73	56.81
Alamance	3	56.81	56.94
Alamance	2	56.94	57.59
Alamance	1	57.59	57.62
Alamance	2	57.62	58.11
Alamance	1	58.11	58.14
Alamance	2	58.14	58.46
Alamance	1	58.46	58.49

REVISED [Oct 2019] - Table 11.2-1

MVP Southgate Project Pipeline Class Locations

Pipeline / County	Class Location	Beginning Approx. Milepost	Ending Approx. Milepost
Alamance	2	58.49	58.57 RR
Alamance	1	58.57 RR	59.02 RR
Alamance	2	59.02 RR	59.81
Alamance	1	59.81	59.85
Alamance	2	59.85	60.09
Alamance	1	60.09	60.29
Alamance	2	60.29	60.53
Alamance	1	60.53	62.37 RR
Alamance	2	62.37 RR	62.49 RR
Alamance	1	62.49 RR	62.59
Alamance	2	62.59	63.11 RR
Alamance	1	63.11 RR	63.41 RR
Alamance	2	63.41 RR	63.62
Alamance	1	63.62	64.27
Alamance	2	64.27	65.71
Alamance	1	65.71	65.98 RR
Alamance	2	65.98 RR	66.58 RR
Alamance	1	66.58 RR	66.60 RR
Alamance	2	66.60 RR	67.22 RR
Alamance	1	67.22 RR	67.58 RR
Alamance	2	67.58 RR	67.56
Alamance	1	67.56	67.86
Alamance	2	67.86	67.98
Alamance	1	67.98	68.14
Alamance	2	68.14	68.32
Alamance	1	68.32	68.34
Alamance	2	68.34	68.38
Alamance	3	68.38	68.74
Alamance	1	68.74	68.97
Alamance	3	68.97	70.04
Alamance	1	70.04	71.85
Alamance	2	71.85	71.99 RR
Alamance	1	71.99 RR	72.56
Alamance	2	72.56	73.17 RR

REVISED [Oct 2019] - Table 11.2-2 Location of High Consequence Areas			
Pipeline / County	**Beginning Milepost**	**Ending Milepost**	**Length (mile)**
Virginia			
H-605 Pipeline			
Pittsylvania	NA	NA	NA
H-650 Pipeline			
Pittsylvania	2.89	3.34	0.45
Pittsylvania	4.04	4.51	0.47
Pittsylvania	19.19	20.17	0.98
North Carolina			
Rockingham	40.41 RR	40.60	0.25
Alamance	56.69	57.06	0.36
Alamance	64.79	65.05 RR	0.26
Alamance	69.19	70.02	0.91
Alamance	72.70	72.99 RR	0.29
NA = Not Applicable.			

MVP Southgate Project

Docket No. CP19-14-000

Revised Alignment Sheets, Project Drawings, and KMZ Files

October 2019

MVP Southgate Project

Docket No. CP19-14-000

Revised Alignment Sheets

(Provided Under Separate Cover)

October 2019

MVP Southgate Project

Docket No. CP19-14-000

USGS Quadrangle Maps

(Provided Under Separate Cover)

October 2019

MVP Southgate Project

Docket No. CP19-14-000

KMZ Files

(Provided Under Separate Cover)

October 2019

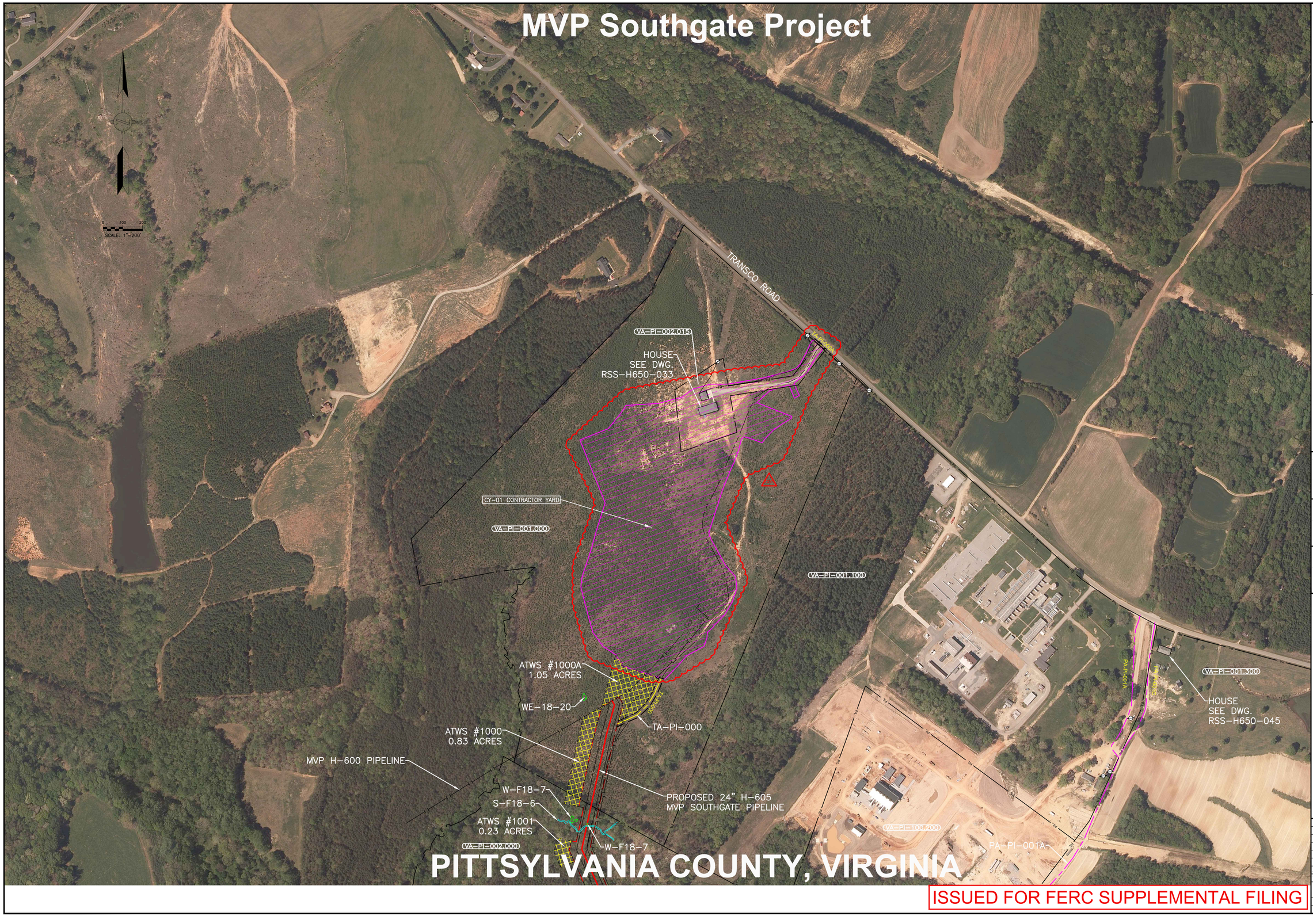
MVP Southgate Project

Docket No. CP19-14-000

Contractor Yard Drawings

October 2019

MVP Southgate Project



PITTSYLVANIA COUNTY, VIRGINIA

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P1	TRC	02/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P2	TRC	10/14/19	ISSUED FOR FERC SUPPLEMENTAL FILING

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Mountain Valley PIPELINE, LLC

PIPELINE CONTRACTOR YARD

MVP SOUTHGATE PROJECT

HORZ. SCALE: 1" = 200'	
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TRC PROJECT NO.:	300423
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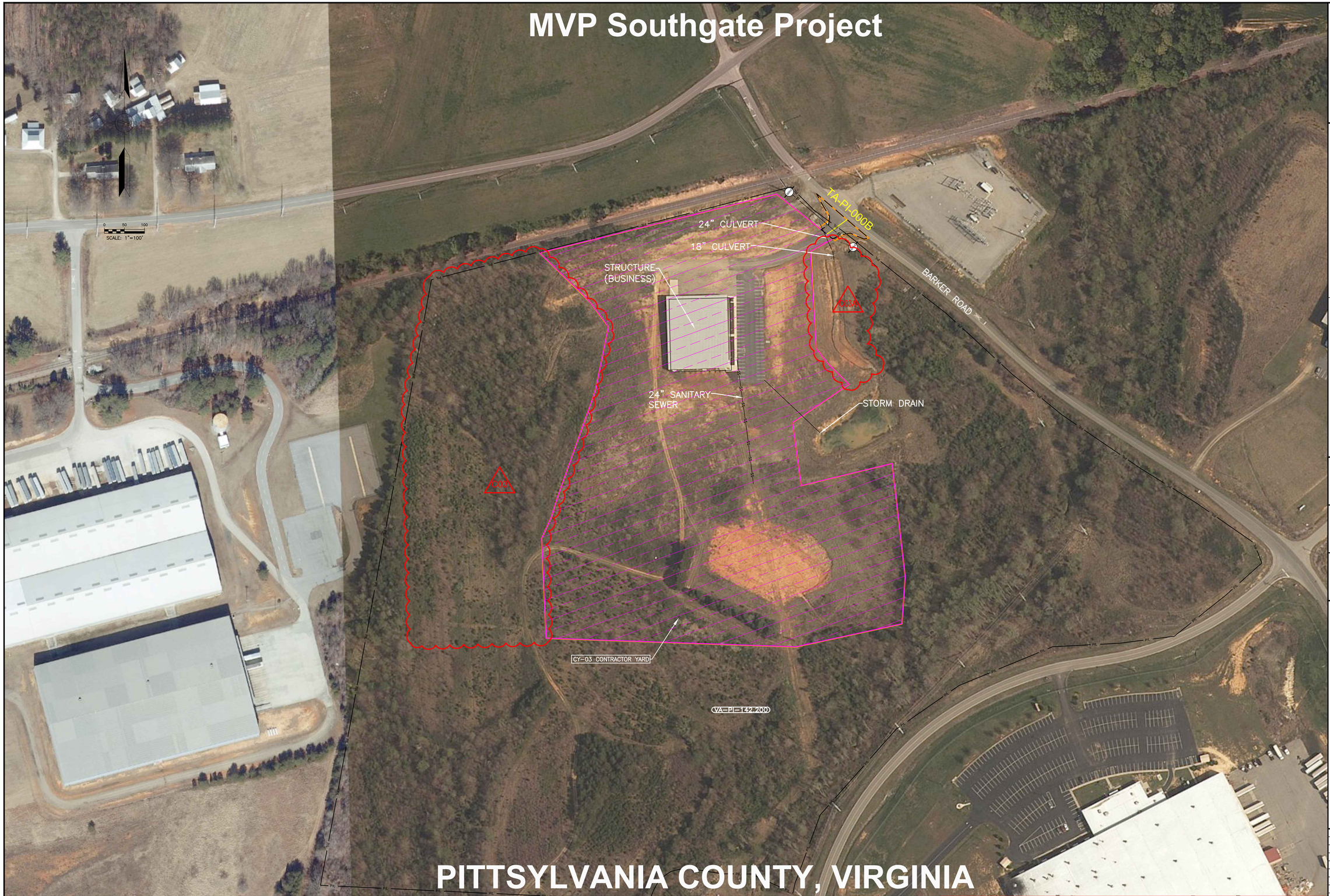
DATE OF PLOT: 10/29/2018 12:35:15 PM	

MVP Southgate Project



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Mountain Valley PIPELINE, LLC

PIPELINE CONTRACTOR YARD

MVP SOUTHGATE PROJECT

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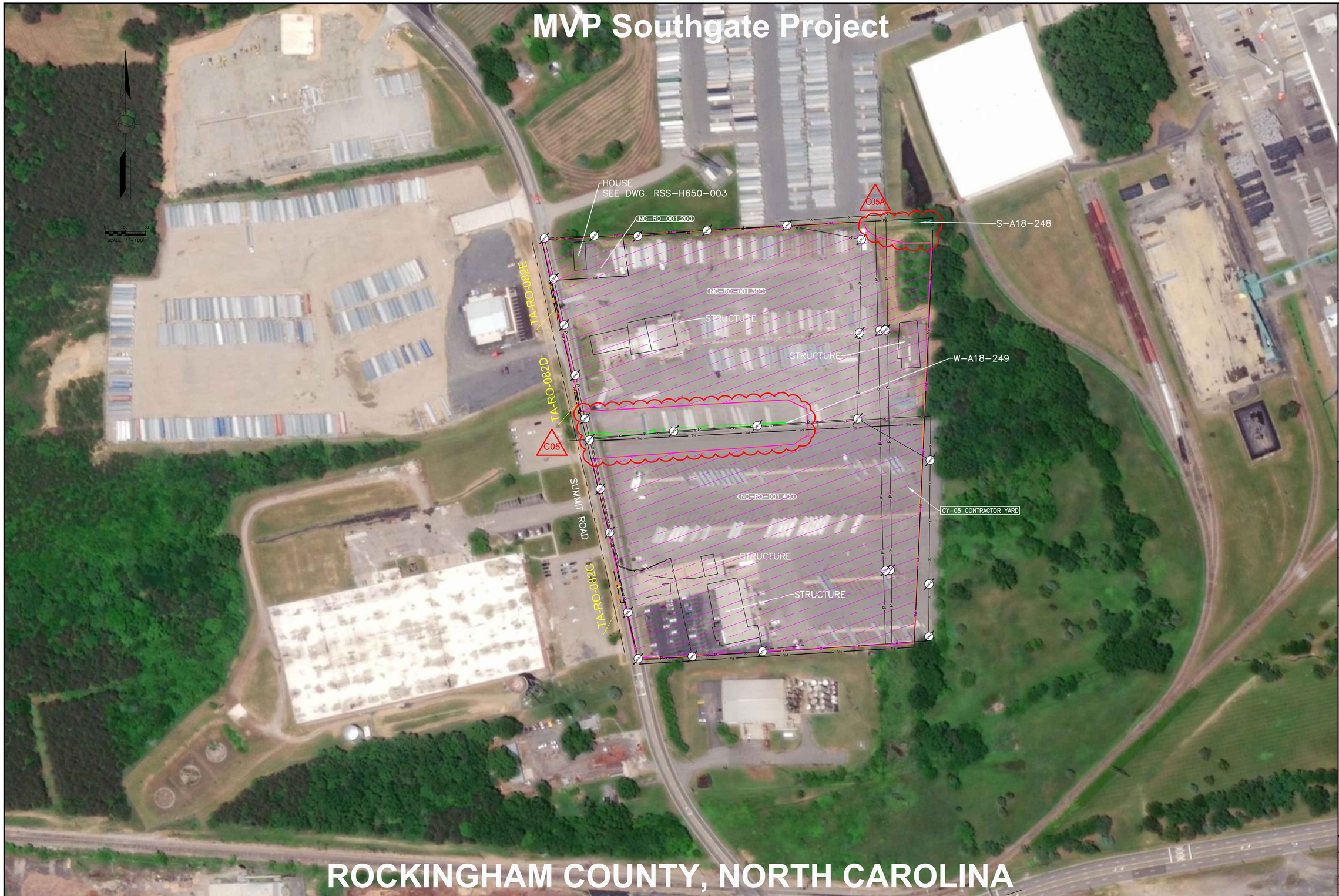

ROCKINGHAM COUNTY, NORTH CAROLINA

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Mountain Valley PIPELINE, LLC

PIPELINE CONTRACTOR YARD

MVP SOUTHGATE PROJECT

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MVP Southgate Project

ROCKINGHAM COUNTY, NORTH CAROLINA

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Mountain Valley PIPELINE, LLC

PIPELINE CONTRACTOR YARD

MVP SOUTHGATE PROJECT

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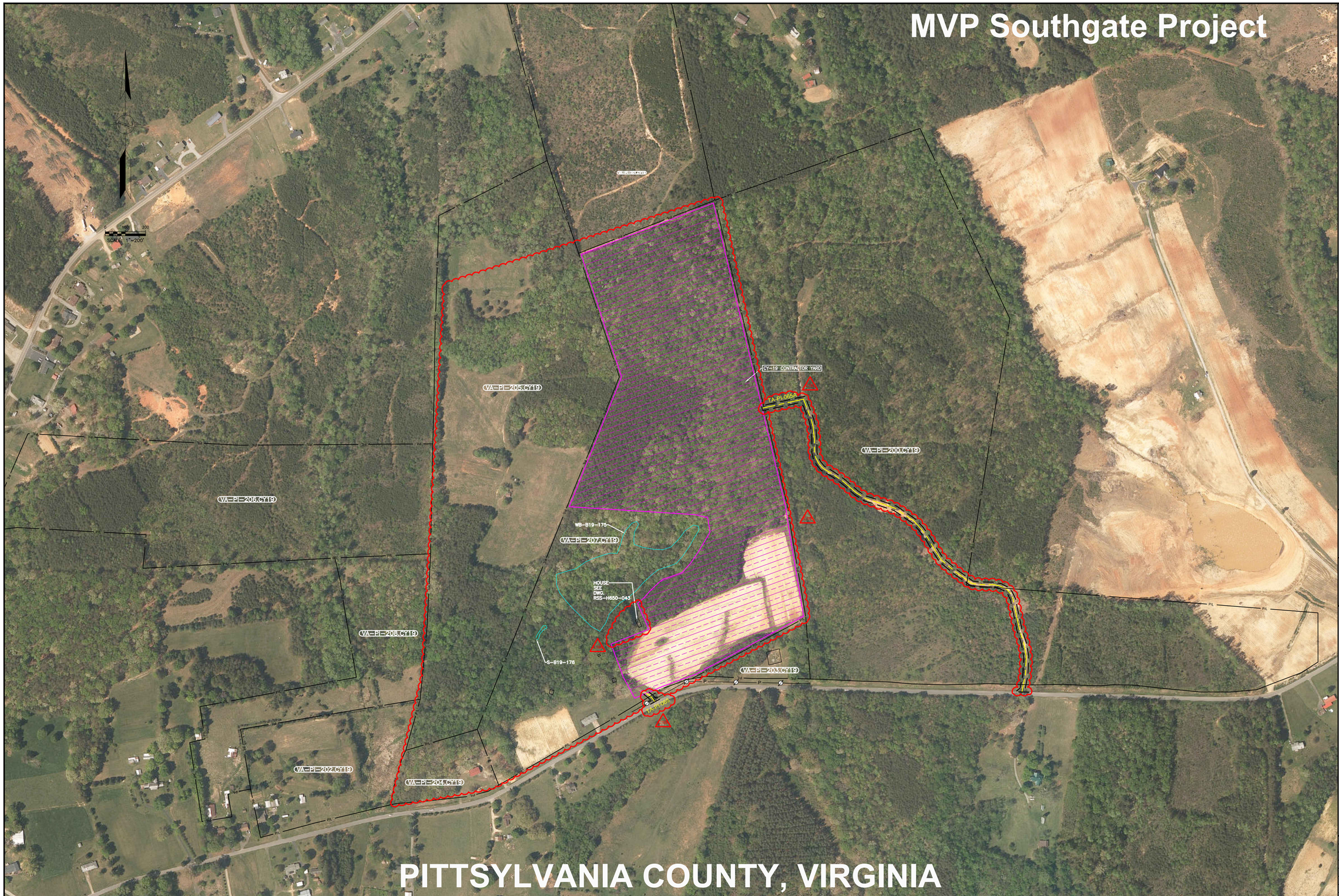

PITTSYLVANIA COUNTY, VIRGINIA

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Mountain Valley PIPELINE, LLC

PIPELINE CONTRACTOR YARD

MVP SOUTHGATE PROJECT

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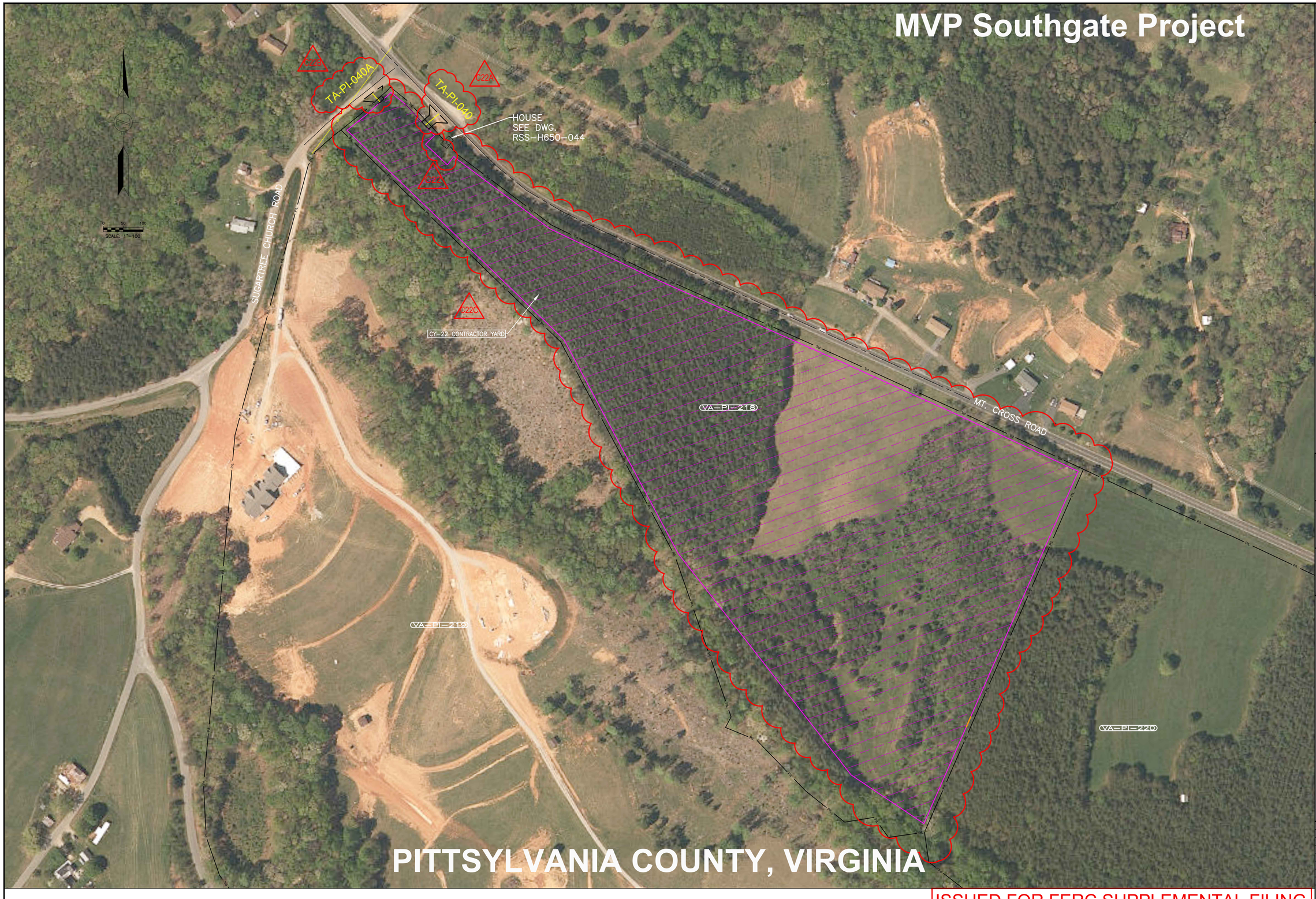

PITTSYLVANIA COUNTY, VIRGINIA

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Mountain Valley PIPELINE, LLC

PIPELINE CONTRACTOR YARD

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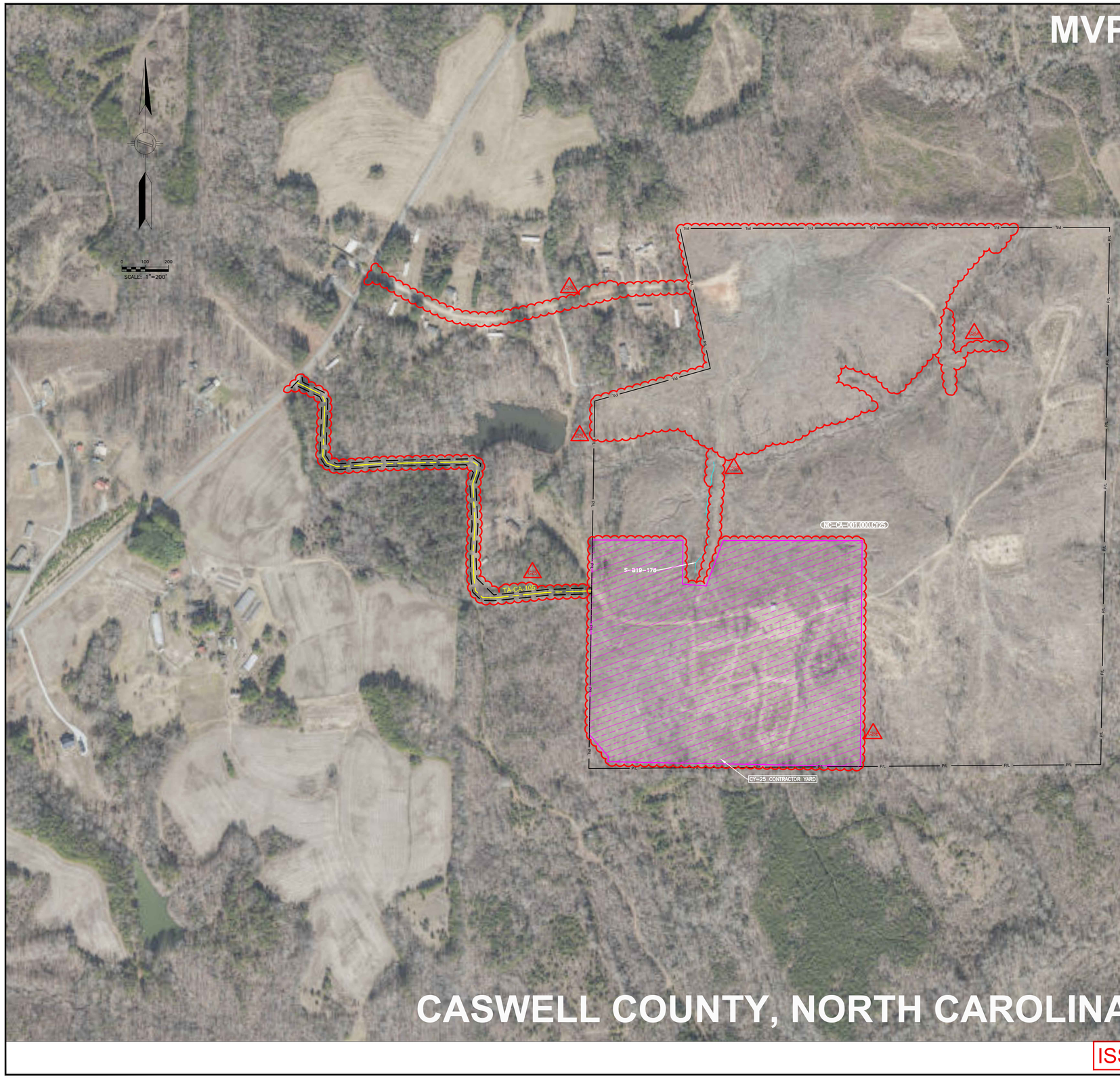

CASWELL COUNTY, NORTH CAROLINA

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Mountain Valley PIPELINE, LLC

PIPELINE CONTRACTOR YARD

MVP SOUTHGATE PROJECT

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