

ATTACHMENT A

Table of Changes to the MVP Southgate Project Route

Table of Changes to the MVP Southgate Project Route <u>a/</u>						
Tract ID	Modification No.	Reason for Change	Approx. Begin MP	Approx. End MP	Length (miles)	Pipeline Route Description / Justification
VA-PI-090.000, VA-PI-091.000	MVP-VRR4-107-0839 <u>b/</u>	Landowner Request	13.50	14.2	0.7	<p>Landowner requested the Project minimize impact through center of property. The Project met with the landowner to develop an alternative that would be acceptable. The proposed change increases colocation in this area.</p> <p>The Project is currently negotiating with the landowners on revised route.</p>
VA-PI-092.000, VA-PI-094.000	MVP-VRA4-144-1257 <u>b/</u>	Engineering	14.20	14.75	0.55	<p>Adjusted the centerline (CL) to be 50 feet away from CL of existing foreign pipeline to eliminate potential encroachment issues related to permanent easements and reduce safety concerns during construction.</p> <p>The Project has acquired 50% of the landowners impacted by this reroute.</p>
VA-PI-173.000, VA-PI-174.000, VA-PI-175.000, VA-PI-178.000	MVP-VRR4-098-1603 <u>b/</u>	Landowner Request	22.40	23.90	1.5	<p>Adjusted alignment to the northwest side of the Transco easement per the Landowner's and County's request to support future development plans on the Berry Hill properties.</p> <p>The Project is currently negotiating with the landowners on revised route.</p>
NC-RO-085.000, NC-RO-086.000	MVP-VRA4-197-1108	Environmental	38.1	38.2	0.1	<p>Adjusted CL of easement to be outside of Jordan Lake Watershed riparian buffer area¹.</p> <p>The Project is currently negotiating with the landowners on revised route.</p>
NC-RO-181.000, NC-RO-182.000, NC-RO-182.000.RC	MVP-VRR4-199-0923	Landowner Request	51.5	51.75	0.25	<p>Landowner (Duke Energy) requested route change to support future expansion at their substation.</p> <p>The Project is currently negotiating with the landowners on revised route.</p>
NC-RO-181.000, NC-RO-184.000, NC-RO-185.000, NC-GU-001.000	MVP-VRR4-158-1211	Environmental	52.02	52.2	0.18	<p>North Carolina Department of Environmental Quality (NCDEQ) requested modification to cross delineated stream (S-C18-15) perpendicular to minimize riparian impact.</p> <p>The Project is currently negotiating with the landowners on revised route.</p>

¹ The Project has been actively working with the U.S. Army Corps of Engineers and North Carolina Department of Environmental Quality to minimize impacts to sensitive resources. Special protections exist in the Jordan Lake Watershed that limit construction procedures within the riparian buffer of identified waterbodies. The buffer is defined as the vegetated area within 50 feet of a delineated waterbody.

Table of Changes to the MVP Southgate Project Route a/

Tract ID	Modification No.	Reason for Change	Approx. Begin MP	Approx. End MP	Length (miles)	Pipeline Route Description / Justification
NC-AL-010.000, NC-AL-018.000, NC-AL-019.000	MVP-VRR4-158-1213 <u>b/</u>	Environmental	55.10	55.68	0.58	NCDEQ requested modification to eliminate non-perpendicular impacts to delineated streams (S-C18-68, S-B18-59). The Project is currently negotiating with the landowners on revised route.
NC-AL-027.000, NC-AL-031.000, NC-AL-030.000	MVP-VRA4-158-1215	Environmental	56.40	56.47	0.07	NCDEQ requested modification to avoid or perpendicularly cross delineated stream (S-A18-120). The Project is currently negotiating with the landowners on revised route.
NC-AL-027.000, NC-AL-028.000	MVP-VRR4-158-1218	Environmental	56.51	56.75	0.24	NCDEQ requested modification to avoid paralleling delineated stream (S-A18-125). The Project is currently negotiating with the landowners on revised route.
NC-AL-051.000, NC-AL-052.000	MVP-VRR4-158-1219	Environmental	58.55	58.78	0.23	NCDEQ requested modification to cross delineated stream (S-C18-11) perpendicular. The Project is currently negotiating with the landowners on revised route.
NC-AL-074.000, NC-AL-075.000	MVP-VRR4-158-1221	Environmental	60.72	60.86	0.14	NCDEQ requested route modification to avoid or perpendicularly cross delineated streams (S-C18-30, S-C18-28). The Project is currently negotiating with the landowners on revised route.
NC-AL-084.000, NC-AL-085.000, NC-AL-086.000	MVP-VRR4-143-0740	Environmental	62.16	62.58	0.42	NCDEQ requested modification to cross delineated stream (S-A18-70) perpendicular and avoid confluence area with another delineated stream (S-A18-72). The Project is currently negotiating with the landowners on revised route.
NC-AL-093.000, NC-AL-096.000, NC-AL-097.000	MVP-VRR4-143-0743 <u>b/</u>	Environmental	62.92	63.45	0.53	NCDEQ requested modification to reduce impact to delineated streams (S-B18-22, S-B18-24, and S-B18-26) and confluence area. The Project is currently negotiating with the landowners on revised route.
NC-AL-103.000, NC-AL-104.000, NC-AL-106.000	MVP-VRR4-149-1432	Constructability	63.91	64.11	0.20	Route adjusted to improve constructability of Deep Creek crossing. A field visit indicated a very large rock embankment that needed to be avoided. The Project is currently negotiating with the landowners on revised route.

Table of Changes to the MVP Southgate Project Route a/

Tract ID	Modification No.	Reason for Change	Approx. Begin MP	Approx. End MP	Length (miles)	Pipeline Route Description / Justification
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 <u>b/</u>	Landowner Request	65.95	66.65	0.7	Route adjustment to accommodate multiple landowner requests to minimize impacts to their respective properties. The Project is initiating negotiations with all impacted landowners.
NC-AL-166.000, NC-AL-167.000, NC-AL-167.100 NC-AL-168.000, NC-AL-174.000, NC-AL-174.100, NC-AL-174.200, NC-AL-174.300, NC-AL-174.400, NC-AL-174.500, 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 <u>b/</u>	Constructability	69.5	69.95	0.45	Reroute to reduce overall impacts to the Town of Haw River. Revised route will avoid constructing pipeline through Municipal Building parking lot, outdoor community center, and in close proximity to multiple residences. The Project is initiating negotiations with all impacted landowners.
NC-AL-185.000, NC-AL-186.000	MVP-VRR4-158-1224	Environmental	70.17	70.29	0.12	NCDEQ requested modification to cross delineated streams (S-B18-133, S-B18-134) perpendicular and avoid confluence of these streams. The Project is initiating negotiations with all impacted landowners.

NOTES:

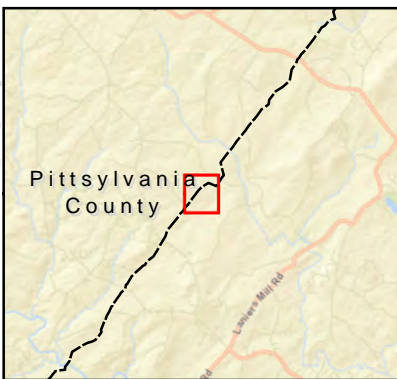
a/ See maps in Attachment B. The route modifications do not involve new landowners.

b/ See comparison of the previous route and proposed modification for modifications that are ≥ 0.5 mile in Attachment C.

ATTACHMENT B

Proposed Route Modification Maps

S:\4 PROJECTS\NEXTERA\300423 MVP_Southfield6\MXD\B-source_Reports\RR10\Fig. X Route Mods_Aug. 2019_Mosaic Pg1.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



0 200 400
Feet
1 inch = 400 feet
When Printed 8.5x11



Proposed Route Modifications

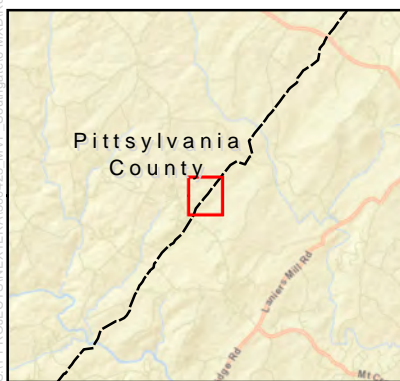
Sheet 1 of 17

Modification: MVP-VRR4-107-0839
(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\4 PROJECTS\NEXTERRA\300423 MVP_Southgate\6-MXD\8-source_Reports\RR10\Fig_X_Route_Mods_Aug_2019_Mosaic_Pg2.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- - - County Boundary

Data Sources: ESRI, EQT



0 200 400
Feet
1 inch = 400 feet
When Printed 8.5x11



Proposed Route Modifications

Sheet 2 of 17

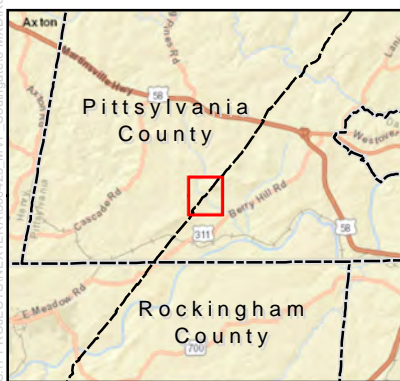
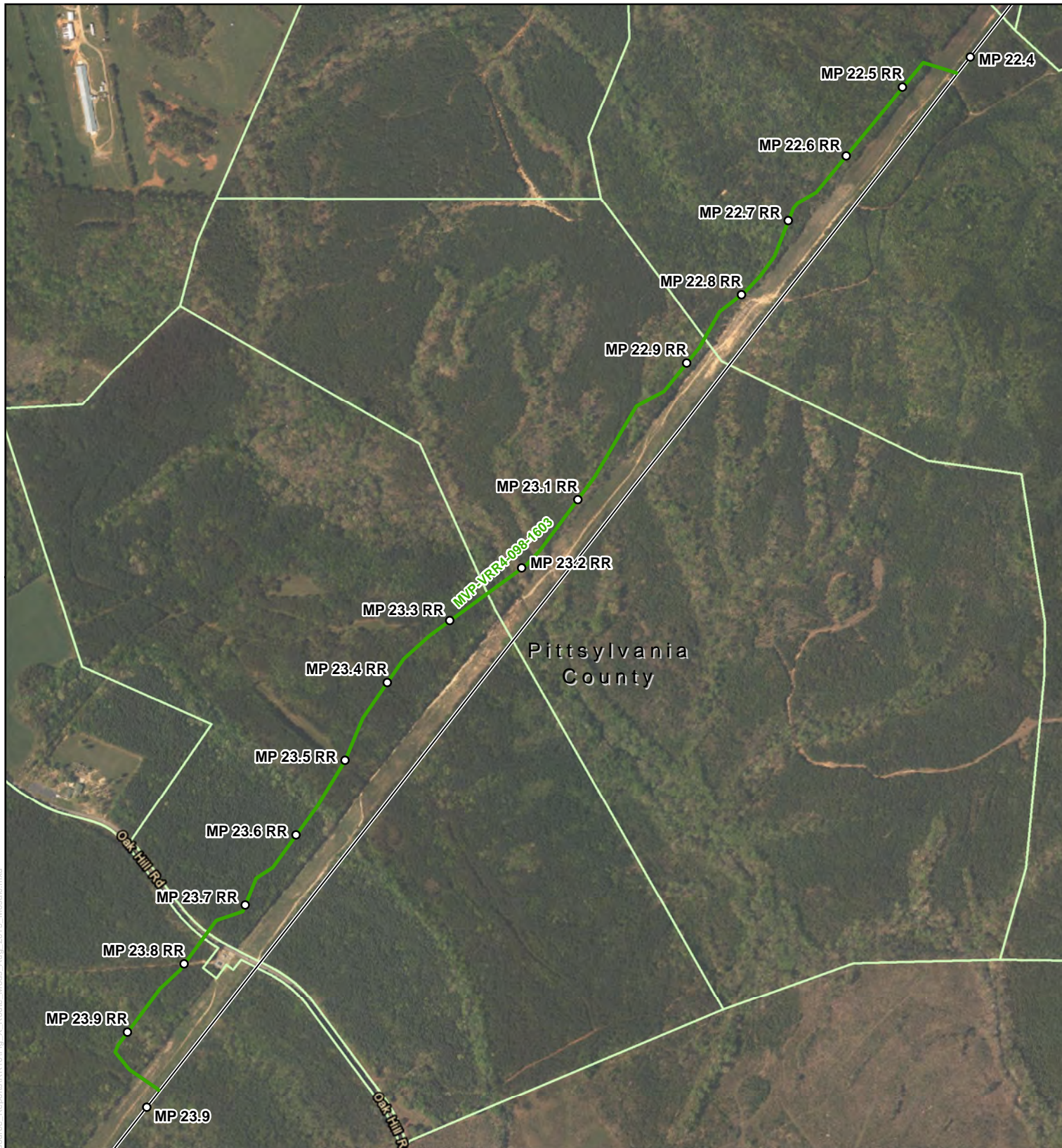
Modification: MVP-VRA4-144-1257

(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\4 PROJECTS\NEXTERRA\300423 MVP_Southern\6-MXD\8-source_Reports\RR10\Fig_X_Route_Mods_Aug_2019_Monark.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



0 200 400
Feet

1 inch = 800 feet
When Printed 8.5x11



Proposed Route Modifications

Sheet 3 of 17

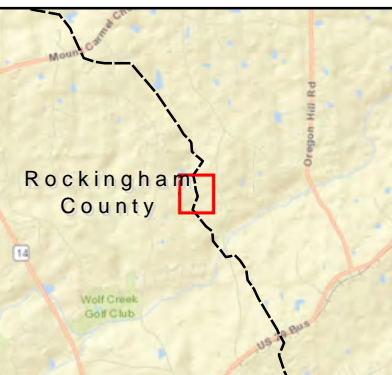
Modification: MVP-VRR4-098-1603

(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\4 PROJECTS\NEXTERRA\300423 MVP_Southfield6\MXD\B-source Reports\RR10\Fig. X Route Mods_Aug_2019_Mosaic_2400.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

0 100 200
Feet
1 inch = 200 feet
When Printed 8.5x11

Data Sources: ESRI, EQT

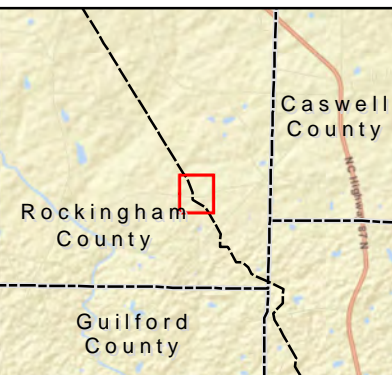
Mountain Valley
PIPELINE LLC

Proposed Route Modifications
Sheet 4 of 17

Modification: MVP-VRA4-197-1108
(ESRI World Imagery)

TRC
600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\PROJECTS\NEXTERRA\300423 MVP_Southern\6-MXD\B-source_Reports\RR10\Fig_X_Route_Mods_Aug_2019_Mosaic_2400.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

0 100 200
Feet
1 inch = 200 feet
When Printed 8.5x11

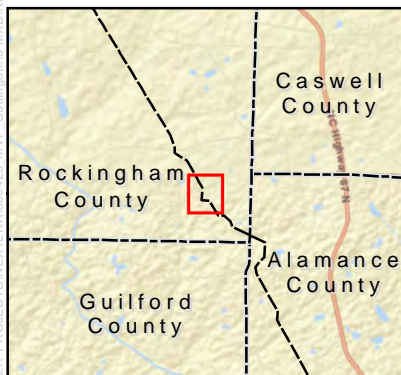
Data Sources: ESRI, EQT

Proposed Route Modifications
Sheet 5 of 17

Modification: MVP-VRR4-199-0923
(ESRI World Imagery)

600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\4 PROJECTS\NEXTERRA\300423 MVP_Southern\6.MXD\B-source_Reports\RR10\Fig. X_Route_Mods_Aug_2019_Mosaic_2400.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

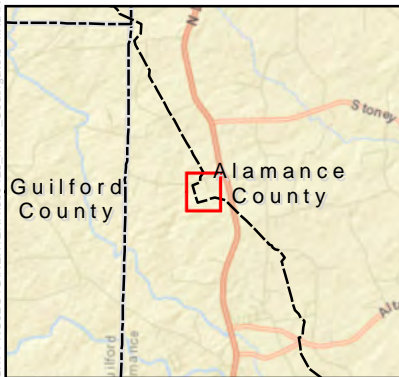
Data Sources: ESRI, EQT

0 100 200
Feet
1 inch = 200 feet
When Printed 8.5x11


Proposed Route Modifications
Sheet 6 of 17

Modification: MVP-VRR4-158-1211
(ESRI World Imagery)

 600 Willowbrook Ln
West Chester, PA 19382
August 2019



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



0 200 400
Feet
1 inch = 300 feet
When Printed 8.5x11



Proposed Route Modifications

Sheet 7 of 17

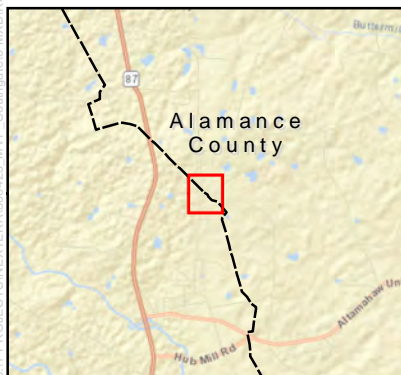
Modification: MVP-VRR4-158-1213

(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

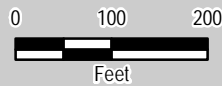
S:\4\PROJECTS\NEXTERA\300423 MVP_Southfield6.MXD\B-source_Reports\RR10\Fig_X_Route_Mods_Apr_2019_Mosaic_2400_Px8.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



1 inch = 200 feet
When Printed 8.5x11



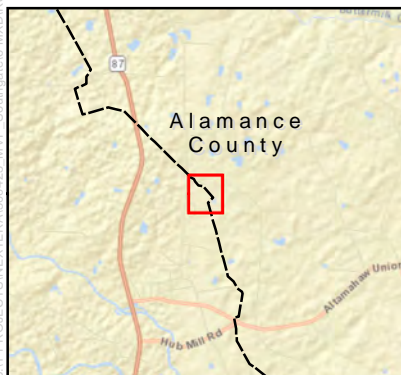
Proposed Route Modifications
Sheet 8 of 17

Modification: MVP-VRA4-158-1215
(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\4\PROJECTS\NEXTERRA\300423 MVP_Southern\6.MXD\B-source_Reports\RR10\Fig_X_Route_Mods_Aug_2019_Mosaic_2400_Pc9.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

0 100 200
Feet
1 inch = 200 feet
When Printed 8.5x11

Data Sources: ESRI, EQT

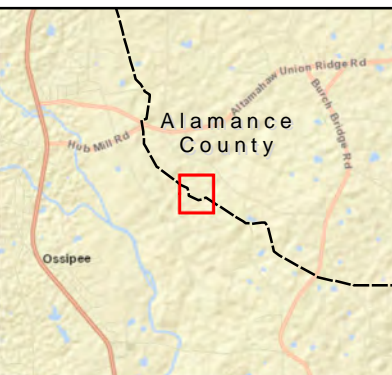
Mountain Valley
PIPELINE LLC

Proposed Route Modifications
Sheet 9 of 17

Modification: MVP-VRR4-158-1218
(ESRI World Imagery)

TRC
600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\4\PROJECTS\NEXTERRA\300423 MVP_Southern\6.MXD\B-source_Reports\RR10\Fig_X_Route_Mods_Aug_2019_Mosaic_2400.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

0 100 200
Feet
1 inch = 200 feet
When Printed 8.5x11

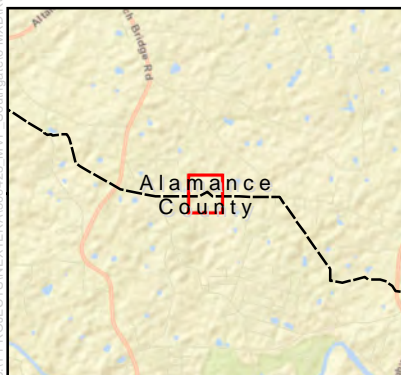
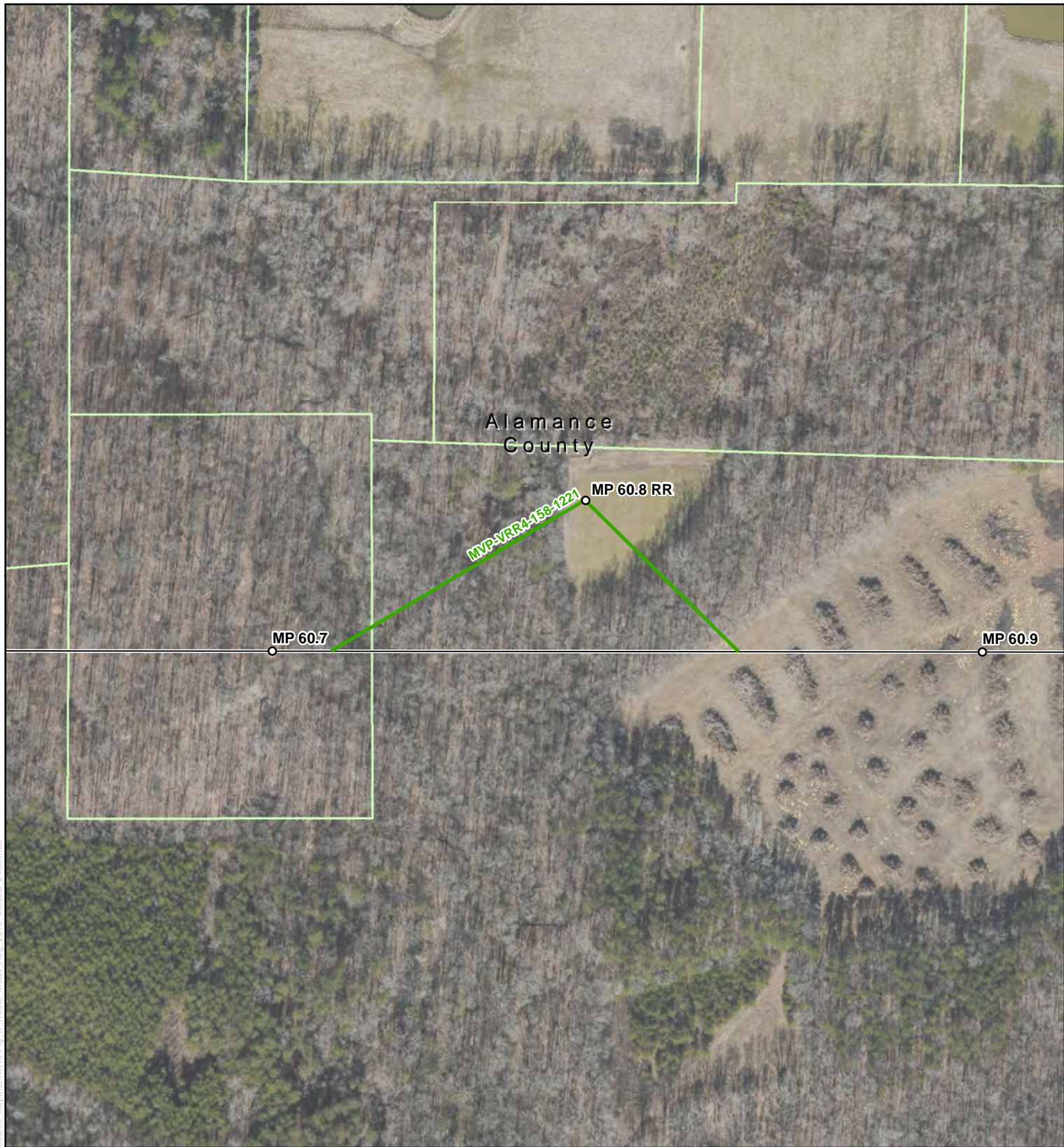
Data Sources: ESRI, EQT

Proposed Route Modifications
Sheet 10 of 17

Modification: MVP-VRR4-158-1219
(ESRI World Imagery)

600 Willowbrook Ln
West Chester, PA 19382
August 2019

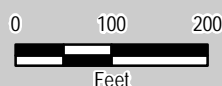
S:\4 PROJECTS\NEXTERA\300423 MVP_Southern\6.MXD\B-source_Reports\RR10\Fig. X_Route_Mods_Aug_2019_Mosaic_2400.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



1 inch = 200 feet
When Printed 8.5x11



Proposed Route Modifications

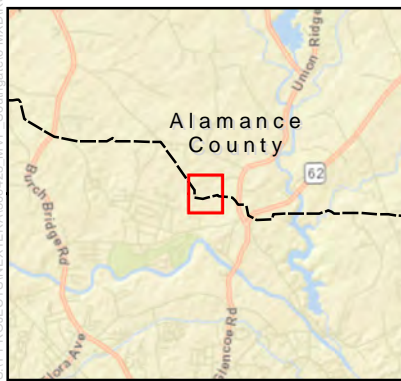
Sheet 11 of 17

Modification: MVP-VRR4-158-1221
(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

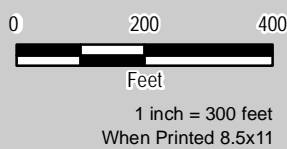
S:\4 PROJECTS\NEXTERRA\300423 MVP_Southville6\MXD\B-source_Reports\RR10\Fig_X_Route_Mods_Aug_2019_Monak.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT

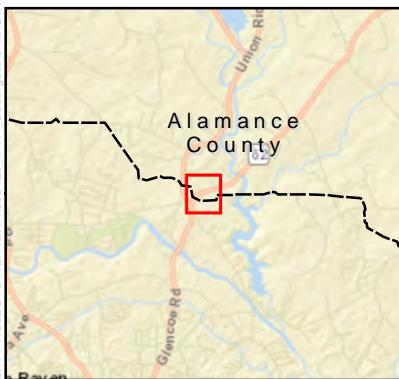


Proposed Route Modifications
Sheet 12 of 17

Modification: MVP-VRR4-143-0740
(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



0 200 400
Feet
1 inch = 300 feet
When Printed 8.5x11



Proposed Route Modifications

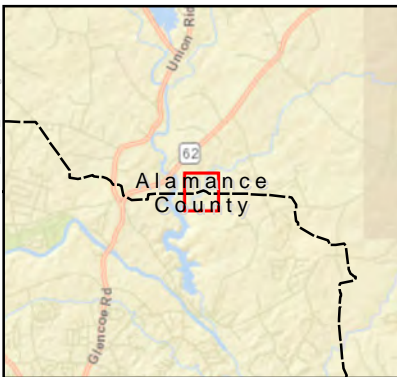
Sheet 13 of 17

Modification: MVP-VRR4-143-0743

(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



0 200 400
Feet
1 inch = 300 feet
When Printed 8.5x11



Proposed Route Modifications

Sheet 14 of 17

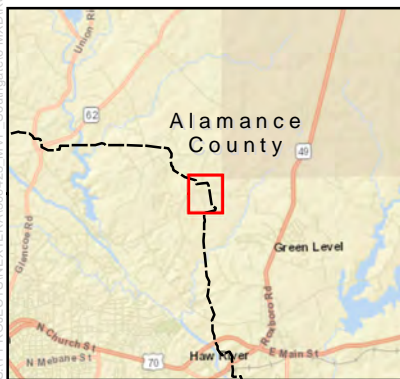
Modification: MVP-VRR4-149-1432

(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\PROJECTS\NEXTERRA\300423 MVP_Southern\6-MXD\B-source_Reports\RR10\Fig_X_Route_Mods_Aug_2019_Monark.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



0 200 400
Feet
1 inch = 400 feet
When Printed 8.5x11



Proposed Route Modifications

Sheet 15 of 17

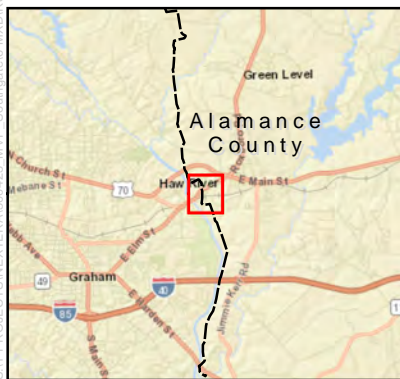
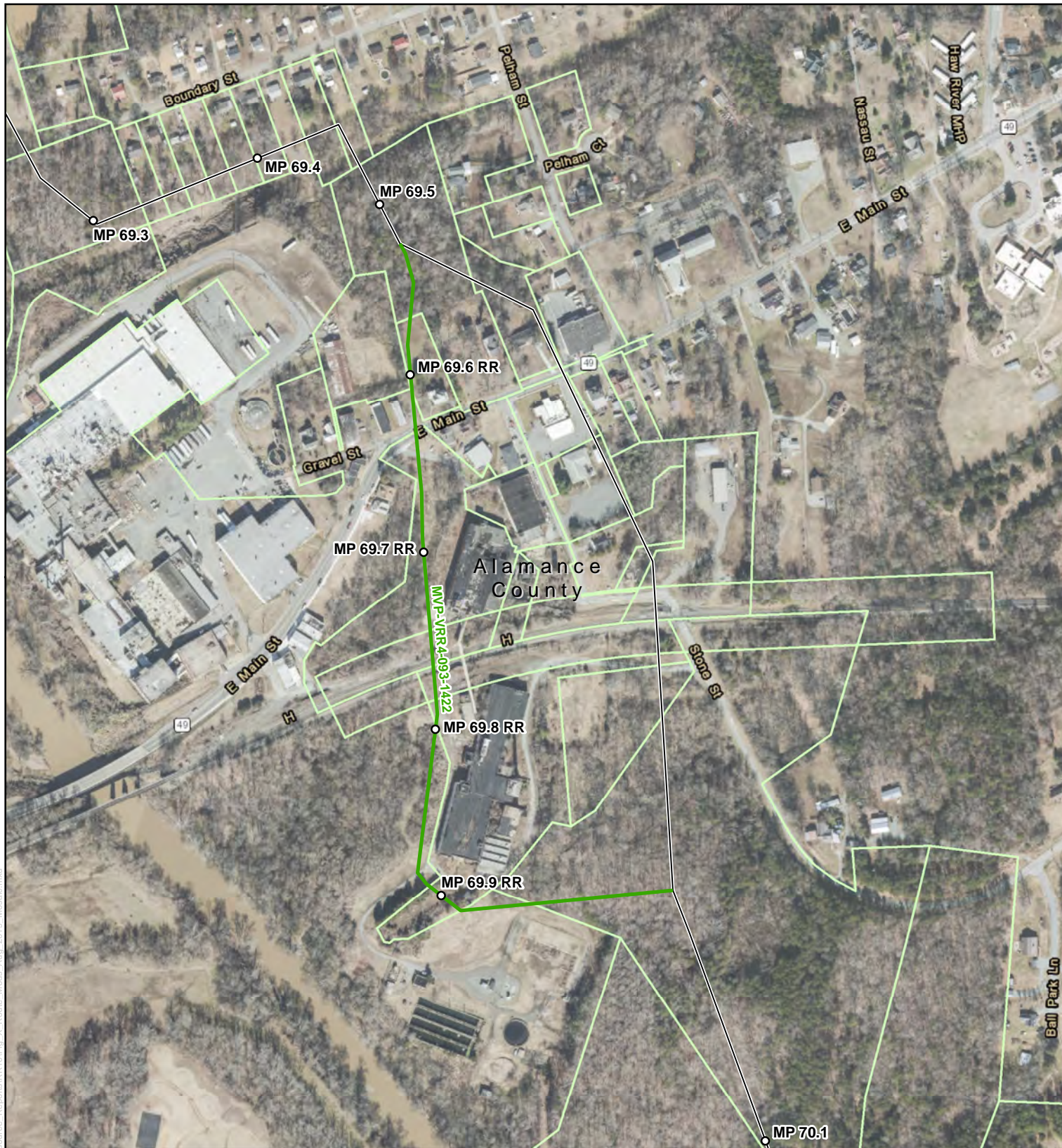
Modification: MVP-VRR4-023-1003

(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

S:\4 PROJECTS\NEXTERA\300423 MVP_SouthHome6.MXD\B-source Reports\RR10\Fig_X_Route_Mods_Aug_2019_Mount.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- County Boundary

Data Sources: ESRI, EQT



0 200 400
Feet
1 inch = 400 feet
When Printed 8.5x11



Proposed Route Modifications

Sheet 16 of 17

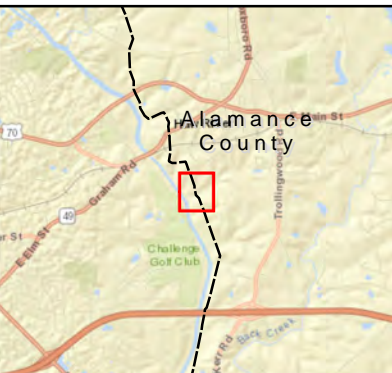
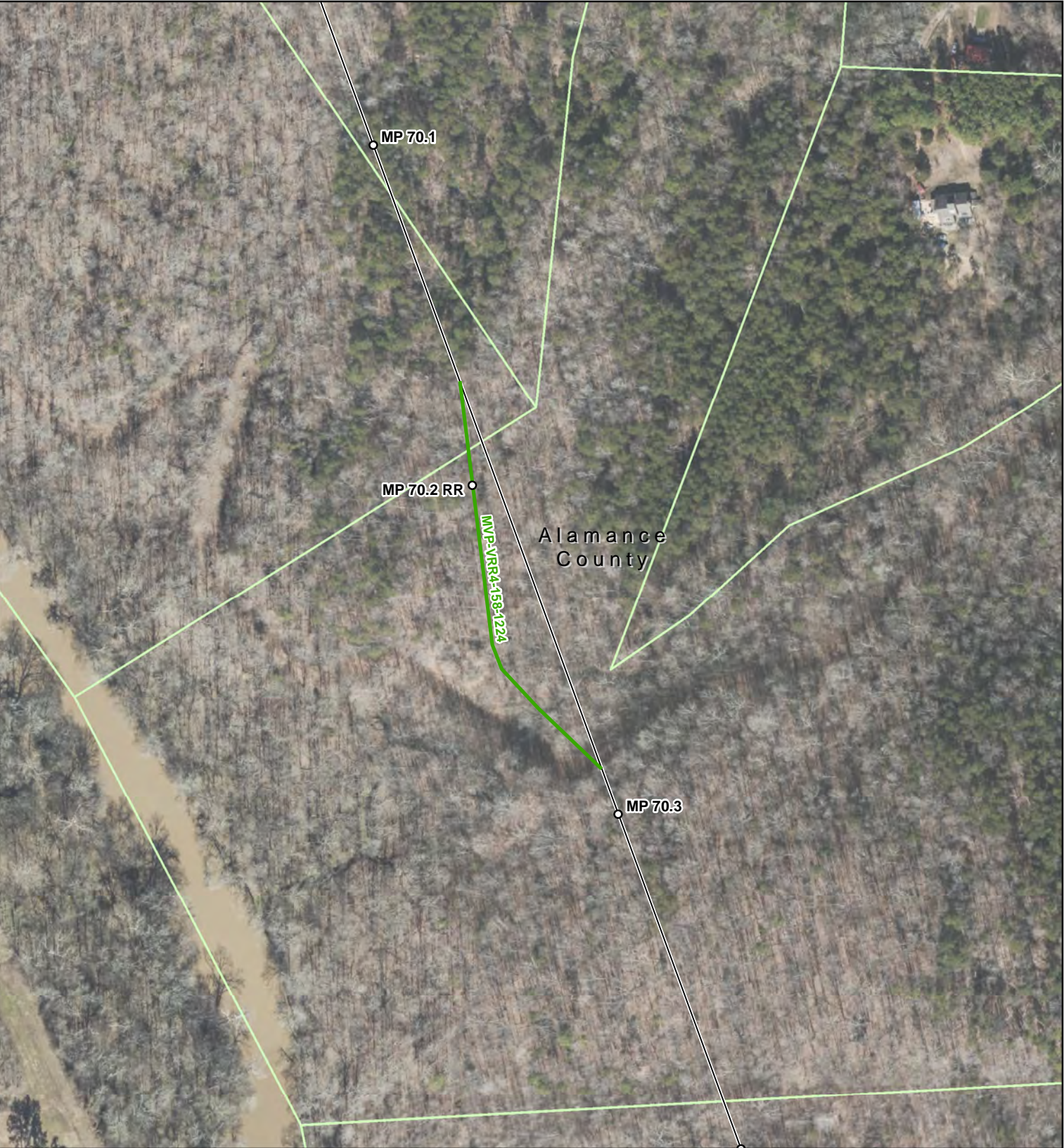
Modification: MVP-VRR4-093-1422

(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

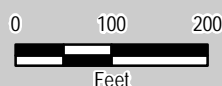
S:\PROJECTS\NEXTERRA\300423 MVP_Southfield6.MXD\B-source_Reports\RR10\Fig_X_Route_Mods_Aug_2019_Mosaic_2400.mxd



Legend

- Mileposts
- Previous Route
- Proposed Modification
- Approximate Parcel Boundary
- - - County Boundary

Data Sources: ESRI, EQT



1 inch = 200 feet
When Printed 8.5x11



Proposed Route Modifications
Sheet 17 of 17

Modification: MVP-VRR4-158-1224
(ESRI World Imagery)



600 Willowbrook Ln
West Chester, PA 19382
August 2019

ATTACHMENT C

Comparison of the Previous Route and Proposed Modification

Table 1 Comparison of the Previous Route (May 2019) and Proposed Modification MVP-VRR4-107-0839 (MP 13.50 to MP 14.20)			
Feature	Previous Route (May 2019)	Proposed Modification (MP 13.50 to MP 14.20)	Difference
Total length (miles)	0.61	0.69	+0.08
Construction right-of-way (acres) <u>a/</u>	7.62	8.49	+0.87
Permanent right-of-way (acres) <u>a/</u>	3.76	4.20	+0.44
Total number of parcels crossed	3	3	0
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	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 NHD 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) <u>b/</u>	0	0	0
Agricultural land within construction ROW (acres) <u>c/</u>	1.73	2.69	+0.96
Forest Areas (miles)	0.13	0.21	+0.08
Forested land affected during construction (acres)	1.65	2.60	+0.95
Forested land affected during operation (acres)	0.79	1.29	+0.50
Length parallel or adjacent to existing ROW (miles)	0	0.41	+0.41
<u>a/</u> Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW. <u>b/</u> Assuming 75-foot-wide construction ROW. <u>c/</u> 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 – 2006 National Land Cover Data - http://www.epa.gov/mrlc/nlcd-2006.html NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/ Wetland determination based on the NWI data since field data was unavailable at the time of publishing. USGS – U.S. Geological Survey - http://www.usgs.gov/ NHD – National Hydrography Dataset - http://nhd.usgs.gov/ Waterbody determination based on the NHD data since field data was unavailable at the time of publishing. ESRI - GIS Mapping - http://www.esri.com/			

Table 2 Comparison of the Previous Route (May 2019) and Proposed Modification MVP-VRA4-144-1257 (MP 14.20 to MP 14.75)			
Feature	Previous Route (May 2019)	Proposed Modification (MP 14.20 to MP 14.75)	Difference
Total length (miles)	0.56	0.56	0.0
Construction right-of-way (acres) <u>a/</u>	6.95	6.94	-0.01
Permanent right-of-way (acres) <u>a/</u>	3.43	3.42	-0.01
Total number of parcels crossed	2	2	0
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	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 NHD 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) <u>b/</u>	0	0	0
Agricultural land within construction ROW (acres) <u>c/</u>	2.53	2.43	-0.10
Forest Areas (miles)	0.13	0.13	0
Forested land affected during construction (acres)	1.44	1.45	+0.01
Forested land affected during operation (acres)	0.76	0.76	0
Length parallel or adjacent to existing ROW (miles)	0.56	0.56	0
<u>a/</u> Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW. <u>b/</u> Assuming 75-foot-wide construction ROW. <u>c/</u> 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 – 2006 National Land Cover Data - http://www.epa.gov/mrlc/nlcd-2006.html NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/ Wetland determination based on the NWI data since field data was unavailable at the time of publishing USGS – U.S. Geological Survey - http://www.usgs.gov/ NHD – National Hydrography Dataset - http://nhd.usgs.gov/ Waterbody determination based on the NHD data since field data was unavailable at the time of publishing. ESRI - GIS Mapping - http://www.esri.com/			

Table 3 Comparison of the Previous Route (May 2019) and Proposed Modification MVP-VRR4-098-1603 (MP 22.40 to MP 23.90)			
Feature	Previous Route (May 2019)	Proposed Modification (MP 22.40 to MP 23.90)	Difference
Total length (miles)	1.45	1.57	+0.12
Construction right-of-way (acres) <u>a/</u>	17.81	19.21	+1.40
Permanent right-of-way (acres) <u>a/</u>	8.86	9.57	+0.71
Total number of parcels crossed	2	2	0
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	0/0	0/0	0/0
Residential Land (miles)	0	0	0
Commercial/Industrial land (miles)	0.01	0.01	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of NHD 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) <u>b/</u>	0	0	0
Agricultural land within construction ROW (acres) <u>c/</u>	5.24	1.42	-3.82
Forest Areas (miles)	1.0	1.45	+0.45
Forested land affected during construction (acres)	12.22	17.45	+5.23
Forested land affected during operation (acres)	6.10	8.77	+2.67
Length parallel or adjacent to existing ROW (miles)	1.45	0.41	-1.04
<p><u>a/</u> Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.</p> <p><u>b/</u> Assuming 75-foot-wide construction ROW.</p> <p><u>c/</u> Includes pasture/hay and cultivated crops.</p> <p>ROW = right-of-way. NWI = National Wetland Inventory</p> <p><u>Information Sources:</u></p> <p>GIS – Analysis based on Geodatabase layers and shapefiles.</p> <p>NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page</p> <p>NLCD – 2006 National Land Cover Data - http://www.epa.gov/mrlc/nlcd-2006.html</p> <p>NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/ Wetland determination based on the NWI data since field data was unavailable at the time of publishing</p> <p>USGS – U.S. Geological Survey - http://www.usgs.gov/</p> <p>NHD – National Hydrography Dataset - http://nhd.usgs.gov/ Waterbody determination based on the NHD data since field data was unavailable at the time of publishing.</p> <p>ESRI - GIS Mapping - http://www.esri.com/</p>			

Table 4 Comparison of the Previous Route (May 2019) and Proposed Modification MVP-VRR4-158-1213 (MP 55.10 to MP 55.68)			
Feature	Previous Route (May 2019)	Proposed Modification (MP 55.10 to MP 55.68)	Difference
Total length (miles)	0.36	0.58	+0.22
Construction right-of-way (acres) <u>a/</u>	4.50	7.14	+2.64
Permanent right-of-way (acres) <u>a/</u>	2.20	3.53	+1.33
Total number of parcels crossed	4	3	-1
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	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 NHD 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) <u>b/</u>	0	0	0
Agricultural land within construction ROW (acres) <u>c/</u>	1.53	2.73	-1.20
Forest Areas (miles)	0.22	0.36	+0.14
Forested land affected during construction (acres)	2.60	4.41	+1.81
Forested land affected during operation (acres)	1.31	2.19	0.88
Length parallel or adjacent to existing ROW (miles)	0	0	0
<p><u>a/</u> Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.</p> <p><u>b/</u> Assuming 75-foot-wide construction ROW.</p> <p><u>c/</u> Includes pasture/hay and cultivated crops.</p> <p>ROW = right-of-way. NWI = National Wetland Inventory</p> <p><u>Information Sources:</u></p> <p>GIS – Analysis based on Geodatabase layers and shapefiles.</p> <p>NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page</p> <p>NLCD – 2006 National Land Cover Data - http://www.epa.gov/mrlc/nlcd-2006.html</p> <p>NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/ Wetland determination based on the NWI data since field data was unavailable at the time of publishing</p> <p>USGS – U.S. Geological Survey - http://www.usgs.gov/</p> <p>NHD – National Hydrography Dataset - http://nhd.usgs.gov/ Waterbody determination based on the NHD data since field data was unavailable at the time of publishing.</p> <p>ESRI - GIS Mapping - http://www.esri.com/</p>			

Table 5

**Comparison of the Previous Route (May 2019) and Proposed Modification MVP-VRR4-143-0743
(MP 62.92 to MP 63.45)**

Feature	Previous Route (May 2019)	Proposed Modification (MP 62.92 to MP 63.45)	Difference
Total length (miles)	0.38	0.52	+0.14
Construction right-of-way (acres) <u>a/</u>	4.75	6.52	+1.77
Permanent right-of-way (acres) <u>a/</u>	2.33	3.22	+0.89
Total number of parcels crossed	3	1	-2
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	0/0	0/0	0/0
Residential Land (miles)	0	0	0
Commercial/Industrial land (miles)	0.01	0.01	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of NHD waterbodies crossed	1	0	-1
Number of NWI wetlands crossed	0	0	0
Total NWI wetland crossing length (feet)	0	0	0
NWI wetlands within construction ROW (acres) <u>b/</u>	0	0	0
Agricultural land within construction ROW (acres) <u>c/</u>	0.01	0.45	+0.44
Forest Areas (miles)	0.35	0.46	+0.11
Forested land affected during construction (acres)	4.40	5.83	+1.43
Forested land affected during operation (acres)	2.15	2.86	+0.71
Length parallel or 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.ncnemap.gov/geoportal/catalog/search/resource/details.page>

NLCD – 2006 National Land Cover Data - <http://www.epa.gov/mlc/nlcd-2006.html>

NWI – National Wetlands Inventory - <http://www.fws.gov/wetlands/> Wetland determination based on the NWI data since field data was unavailable at the time of publishing

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

NHD – National Hydrography Dataset - <http://nhd.usgs.gov/> Waterbody determination based on the NHD data since field data was unavailable at the time of publishing.

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

Table 6 Comparison of the Previous Route (May 2019) and Proposed Modification MVP-VRR4-023-1003 (MP 65.95 to MP 66.65)			
Feature	Previous Route (May 2019)	Proposed Modification (MP 65.95 to MP 66.65)	Difference
Total length (miles)	0.69	0.74	+0.05
Construction right-of-way (acres) <u>a/</u>	8.53	9.11	+0.58
Permanent right-of-way (acres) <u>a/</u>	4.22	4.51	+0.29
Total number of parcels crossed	8	7	-1
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	0/0	0/0	0/0
Residential Land (miles)	0.06	0	-0.06
Commercial/Industrial land (miles)	0.01	0.01	0
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	0	0	0
Number of NHD waterbodies crossed	0	1	+1
Number of NWI wetlands crossed	0	0	0
Total NWI wetland crossing length (feet)	0	0	0
NWI wetlands within construction ROW (acres) <u>b/</u>	0	0	0
Agricultural land within construction ROW (acres) <u>c/</u>	6.11	6.35	+0.24
Forest Areas (miles)	0.15	0.18	+0.03
Forested land affected during construction (acres)	1.93	2.28	+0.35
Forested land affected during operation (acres)	0.92	1.11	+0.19
Length parallel or adjacent to existing ROW (miles)	0	0	0
<p><u>a/</u> Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.</p> <p><u>b/</u> Assuming 75-foot-wide construction ROW.</p> <p><u>c/</u> Includes pasture/hay and cultivated crops.</p> <p>ROW = right-of-way. NWI = National Wetland Inventory</p> <p><u>Information Sources:</u></p> <p>GIS – Analysis based on Geodatabase layers and shapefiles.</p> <p>NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page</p> <p>NLCD – 2006 National Land Cover Data - http://www.epa.gov/mrlc/nlcd-2006.html</p> <p>NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/ Wetland determination based on the NWI data since field data was unavailable at the time of publishing</p> <p>USGS – U.S. Geological Survey - http://www.usgs.gov/</p> <p>NHD – National Hydrography Dataset - http://nhd.usgs.gov/ Waterbody determination based on the NHD data since field data was unavailable at the time of publishing.</p> <p>ESRI - GIS Mapping - http://www.esri.com/</p>			

Table 7 Comparison of the Previous Route (May 2019) and Proposed Modification MVP-VRR4-093-1422 (MP 69.50 to MP 69.95)			
Feature	Previous Route (May 2019)	Proposed Modification (MP 69.50 to MP 69.95)	Difference
Total length (miles)	0.43	0.51	+0.08
Construction right-of-way (acres) <u>a/</u>	5.33	6.34	+1.01
Permanent right-of-way (acres) <u>a/</u>	2.62	3.13	+0.51
Total number of parcels crossed	12	9	-3
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	3/3	2/3	-1/0
Residential Land (miles)	0	0.03	+0.03
Commercial/Industrial land (miles)	0.19	0.25	+0.06
Unlisted/Potential Eligible Historic Properties (number)	0	0	0
National Trails, Recreation Trails, and Other Recreational Areas (number)	1	1	0
Number of NHD 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) <u>b/</u>	0	0	0
Agricultural land within construction ROW (acres) <u>c/</u>	0	0	0
Forest Areas (miles)	0.18	0.13	-0.05
Forested land affected during construction (acres)	2.25	1.66	-0.59
Forested land affected during operation (acres)	1.12	0.80	-0.32
Length parallel or adjacent to existing ROW (miles)	0	0	0
<p><u>a/</u> Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.</p> <p><u>b/</u> Assuming 75-foot-wide construction ROW.</p> <p><u>c/</u> Includes pasture/hay and cultivated crops.</p> <p>ROW = right-of-way. NWI = National Wetland Inventory</p> <p><u>Information Sources:</u></p> <p>GIS – Analysis based on Geodatabase layers and shapefiles.</p> <p>NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page</p> <p>NLCD – 2006 National Land Cover Data - http://www.epa.gov/mrlc/nlcd-2006.html</p> <p>NWI – National Wetlands Inventory - http://www.fws.gov/wetlands/ Wetland determination based on the NWI data since field data was unavailable at the time of publishing</p> <p>USGS – U.S. Geological Survey - http://www.usgs.gov/</p> <p>NHD – National Hydrography Dataset - http://nhd.usgs.gov/ Waterbody determination based on the NHD data since field data was unavailable at the time of publishing.</p> <p>ESRI - GIS Mapping - http://www.esri.com/</p>			

ATTACHMENT D

KMZ Files

(Provided Under Separate Cover)

ATTACHMENT E

MVP Southgate Public Outreach Materials

Mountain Valley Pipeline, LLC (“Mountain Valley”) utilized various methods of advertising to inform the public about the Notice of Availability of the Draft Environmental Impact Statement (“DEIS”) for the proposed MVP Southgate Project (“Project”), the DEIS comment period, and FERC’s public comment sessions. These methods included:

- The purchase of a half page advertisement to publish on Sunday, August 11, and Wednesday, August 14, in the print versions of the Burlington Times-News, Rockingham Now and Danville Register & Bee (Attached);
- The purchase of digital display advertising on each newspaper’s respective website: www.thetimesnews.com from August 7 to August 22; and www.greensboro.com/rockingham_now/ and www.godanriver.com from August 8 to August 20 (Attached);
- The purchase of additional digital advertising in the Project area to draw attention to the DEIS and the public meetings;
- The posting of the DEIS meeting dates and locations prominently on the “Public Meetings” page of www.mvpsouthgate.com; and
- The distribution of the latest version of the Project newsletter, which was posted to www.mvpsouthgate.com and mailed to all stakeholders on August 7 (Attached). The public comment session dates and locations – as well as information about how to submit comments on the DEIS during the comment period – were also included in the newsletter.



The MVP Southgate project is a proposed natural gas infrastructure system designed to transport clean-burning, affordable natural gas from the Marcellus and Utica regions to growing demand markets in central North Carolina. MVP Southgate will be developed, constructed, and owned by Mountain Valley Pipeline, LLC – and as an interstate pipeline will be regulated by the Federal Energy Regulatory Commission (FERC).

The FERC has issued a Draft Environmental Impact Statement (DEIS) examining the environmental impacts of the MVP Southgate project. As part of the Commission's efforts to gather input, the FERC will host community meetings in which the public is invited to share specific feedback on the DEIS. This feedback will be considered by FERC in preparation of a Final Environmental Impact Statement (FEIS). Commission staff will hand out numbers to attendees in the order of their arrival. Attendees will be called by number to provide individual verbal comments on a one-on-one basis with a court reporter. Distribution of the numbers will be discontinued at 7 p.m. in order to ensure all comments are received by the session closing time. While there will not be a formal presentation during these meetings, the public will have direct access to Commission staff to answer questions about the DEIS and the environmental review process. MVP Southgate representatives will also be present at each meeting to answer questions about the project. The public is invited to attend any of the following DEIS comment meetings:

Monday, August 19, 2019

5 – 8 PM

Rockingham Community
College

215 Wrenn Memorial Road
Wentworth, NC 27375

Tuesday, August 20, 2019

5 – 8 PM

Olde Dominion
Agricultural Complex

19783 U.S. Hwy 29 South
Chatham, VA 24531

Thursday, August 22, 2019

5 – 8 PM

Vailtree Event &
Conference Center

1567 Bakatsias Lane
Haw River, NC 27258

For more information, please visit the project website at www.mvpsouthgate.com.

This ad published at www.thetimesnews.com:

The Federal Energy Regulatory Commission (FERC) is hosting public meetings to gather comments on the Draft Environmental Impact Statement for this proposed natural gas infrastructure system.

THE PUBLIC IS INVITED TO ATTEND ANY OF THE MEETINGS.



CLICK HERE TO
LEARN DATES
AND LOCATIONS.

This ad published at www.greensboro.com/rockingham_now/ and www.godanriver.com:

The Federal Energy Regulatory Commission (FERC) is hosting public meetings to gather comments on the Draft Environmental Impact Statement for this proposed natural gas infrastructure system.

THE PUBLIC IS INVITED TO ATTEND ANY OF THESE MEETINGS:

MONDAY, AUG. 19, 2019 * 5 - 8 P.M.
ROCKINGHAM COMMUNITY COLLEGE

TUESDAY, AUG. 20, 2019 * 5 - 8 P.M.
OLDE DOMINION AGRICULTURAL COMPLEX

THURSDAY, AUG. 22, 2019 * 5 - 8 P.M.
VAITREE EVENT & CONFERENCE CENTER



CLICK HERE TO
LEARN MORE

IN THE PIPELINE

MVP SOUTHGATE NEWSLETTER
Volume 4 :: August 2019



Our project newsletter to stakeholders

We are pleased to provide you with the fourth newsletter for the MVP Southgate project as part of our effort to maintain communication with stakeholders throughout the regulatory process.

MVP Southgate receives Draft Environmental Impact Statement

On Friday, July 26, 2019, the Federal Energy Regulatory Commission (FERC) issued the Draft Environmental Impact Statement (DEIS) for the MVP Southgate project. This DEIS was issued after more than 15 months of project planning and development. It reflects the evaluation of data from civil, environmental and cultural surveys conducted along 90 percent of the proposed route, as well as feedback from landowners, state and federal agencies, local officials, tribes and non-governmental organizations.

Through the DEIS, the FERC evaluates the potential environmental impacts associated with construction and operation of the proposed pipeline. While some environmental impacts are anticipated, the FERC concluded that those impacts would be limited and that, through implementation of the MVP Southgate team's proposed plans and additional conditions offered by the FERC, these impacts could be reduced to less than significant levels.

In order to meet growing public demand, MVP Southgate was designed to provide the region with an additional supply of natural gas, and the team has worked closely with its many stakeholders to develop a route that minimizes potential impacts. Since the project was announced in April 2018, the MVP Southgate team has made more than 1,000 adjustments to its route. The majority of these changes have been based on landowner requests, engineering considerations or an effort to avoid sensitive resources.

The MVP Southgate team will continue to work with landowners and other stakeholders to refine the proposed route as necessary and will respond to the FERC with the information requested in the DEIS. The MVP Southgate team also will evaluate and respond to public comments on the DEIS. Comments can be submitted to the FERC through September 16, 2019.

Key takeaways from FERC's Draft Environmental Impact Statement:

- "Based on our findings we conclude that the proposed Project is the preferred alternative that can meet the Project's stated purpose." (Page 3-48)
- "Based on our review of the potential impacts and mitigation measures, including our recommendations, we conclude that constructing and operating the Project would not significantly impact wildlife, terrestrial habitats, migratory birds, or fisheries and aquatic resources." (Page ES-6)
- "We conclude that Mountain Valley's compliance with applicable design, construction and maintenance standards, and DOT safety regulations would be protective of public safety." (Page ES-8)

Read the full DEIS at
www.mvpsouthgate.com/news-info/

The next steps

FERC staff will host public meetings to collect comments on the DEIS. Individual verbal comments will be taken on a one-on-one basis with a court reporter. While there will not be a formal presentation during these meetings, the public will have direct access to Commission staff to answer questions about the DEIS and the environmental review process. MVP Southgate representatives will also be present at each meeting to answer questions about the project.

Numbers will be provided to attendees in the order of their arrival, and distribution of the numbers will be discontinued at 7 p.m. in order to ensure all comments are received by the session closing time. Comments provided to the court reporter will be recorded, transcribed and submitted under the project's FERC Docket No. CP19-14, and will be considered by FERC in preparation of the Final Environmental Impact Statement (FEIS). The FERC has scheduled the FEIS for release in December 2019.

Schedule of upcoming DEIS public comment meetings

Rockingham County, NC	Pittsylvania County, VA	Alamance County, NC
August 19, 2019 5 PM to 8 PM	August 20, 2019 5 PM to 8 PM	August 22, 2019 5 PM to 8 PM
Rockingham Community College 215 Wrenn Memorial Road Wentworth, NC 27375	Olde Dominion Agricultural Complex 19783 U.S. Hwy 29 South Chatham, VA 24531	Vailtree Event & Conference Center 1567 Bakatsias Lane Haw River, NC 27258

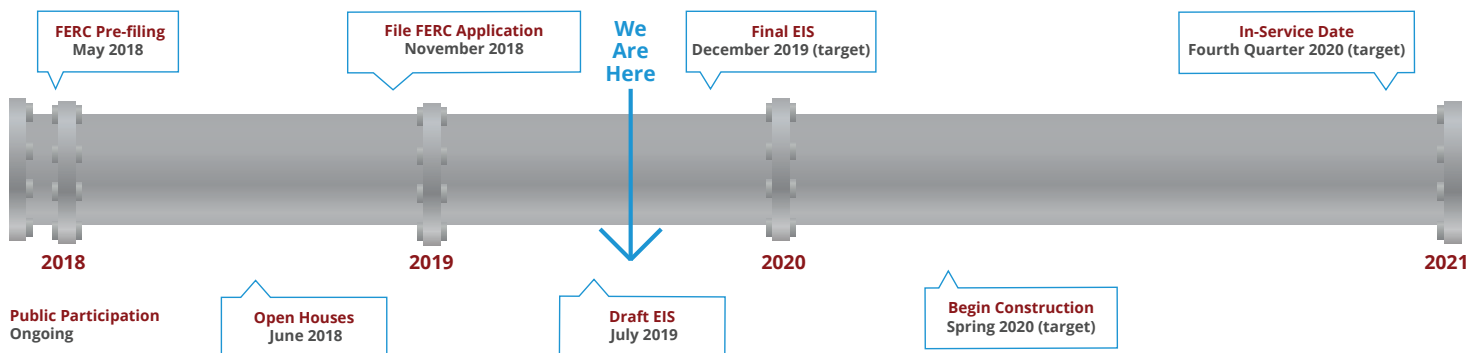
Additional efforts noted in the DEIS

- More than 50 percent of the proposed MVP Southgate project route is co-located along existing rights of way.
- The temporary easement needed for construction of the project would be reduced in wetland areas to 75 feet.
- Upon completion of construction, the MVP Southgate team will re-establish vegetation on the right of way and restore the ground surface to original contours as closely as practicable.

Other ways to comment

Comments citing the project docket number, CP19-14, may also be submitted until September 16, 2019, through:

- U.S. Mail: Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, D.C. 20426
- eFiling: www.ferc.gov



Our focus: Safety and preserving culture, environment

Safety is the No. 1 priority for the MVP Southgate project team. That's why we've committed to meeting or exceeding industry standards and best practices for construction and operation of this proposed interstate natural gas transmission line.

This project includes 24/7 remote monitoring and steel pipe at least .375-inch thick and buried under a marked right-of-way at least three feet below ground level. Cathodic protection beds and a fusion-bonded epoxy, like the one used to protect the interior of public drinking water pipes, will be used to protect this steel pipe against corrosion. Federal, state and project inspectors will be assigned throughout the right-of-way to monitor activity and compliance during construction.

For more than a year, our team has been working with experts in the field to identify environmentally and culturally sensitive areas along the project's proposed 74 mile route. We are dedicated to building this project in the most responsible manner, and teams of archaeologists, biologists and engineers have worked diligently to avoid those sensitive areas, mitigate any impacts and develop the best possible route in order to provide the additional supply of natural gas that North Carolinians need.



An archaeological technician sifts through excavated soil at a cultural survey and archaeological testing site along the proposed MVP Southgate project. Members of the North Carolina Office of State Archaeology, the North Carolina Commission of Indian Affairs and the U.S. Army Corps of Engineers visited the site to witness the surveying activities.

Engaging with the community

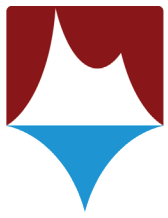
The MVP Southgate project team believes in making positive contributions to the community and being a good corporate citizen. We are proud to be members of the Danville-Pittsylvania Chamber of Commerce in Virginia, and the Reidsville, Eden and Alamance County chambers of commerce in North Carolina. The project team also proudly supports other education- and business-oriented activities and organizations, including the 2019 NC Envirothon and the Rockingham County Education Foundation.

Team members are focused on engaging with business leaders, residents, government officials, non-governmental groups and other stakeholders to increase economic opportunity and maintain the region's high quality of life.

We intend to continue working with local and state public safety agencies and emergency responders to discuss the safe and responsible construction and operation of the proposed pipeline.



Rockingham County Education Foundation's 10th annual fundraiser benefit was supported through ticket sales, donations and sponsorships, with proceeds directly supporting programs to increase educational opportunities for county residents.



MVP
SOUTHGATE



MVP
SOUTHGATE

Your feedback is important

For more information on our project

Access recent project filings on the FERC website at
https://elibrary.ferc.gov/idmws/docket_search.asp
and use the docket number **CP19-14**

Contact the MVP Southgate project team
www.mvpsouthgate.com
Call us toll-free: **833-MV-SOUTH**
Send us an email: **mail@mvpsouthgate.com**