625 Liberty Avenue, Suite 1700 | Pittsburgh, PA 15222
833-MV-SOUTH | mail@mvpsouthgate.com
www.mpvsouthgate.com

July 19, 2018

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: Mountain Valley Pipeline, LLC
MVP Southgate Project
Docket No. PF18-4-000
Responses to Alternative Routes Analysis Request

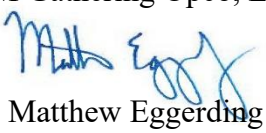
Dear Ms. Bose:

On July 11, 2018, the Office of Energy Projects of the Federal Energy Regulatory Commission issued an Alternative Routes Analysis Request to Mountain Valley Pipeline, LLC with respect to the MVP Southgate Project. In this filing, Mountain Valley submits responses to this request.

If you have any questions, please do not hesitate to contact me (412-553-5786; meggerding@eqt.com) or William Lavarco (202-347-7127; William.lavarco@nee.com). Thank you.

Respectfully submitted,

MOUNTAIN VALLEY PIPELINE, LLC
by and through its operator,
EQM Gathering Opco, LLC

By: 

Matthew Eggerding
Senior Counsel, Midstream

Attachments

cc: Amanda Mardiney, OEP
John Peconom, OEP
Allen Jacks, Cardno

Responses to the July 11, 2018 FERC Alternative Routes Analysis Request

MVP Southgate Project

VOLUME I – PUBLIC

July 19, 2018

Mountain Valley Pipeline, LLC
Docket No. PF18-4-000

Prepared for:

Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street, N.E., Room 1A
Washington, DC 20426

MVP Southgate Project - Docket No. PF18-4-000

RESPONSES TO THE FERC ALTERNATIVE ROUTES ANALYSIS REQUEST

Dated July 11, 2018

LIST OF ATTACHMENTS

Attachment 10-1 Figures

1. An alternative route that would reduce the number of parcels crossed and the number of residences affected between milepost (MP) 64.5 and MP 72.5 in Alamance County. This alternative would deviate from the planned pipeline route east of the Stony Creek Reservoir Crossing, proceed southeast, connect to the existing Cardinal Pipeline easement immediately east of the Haw River. From this point, the alternative would cross over the Haw River around US Highway 70, collocate with the Cardinal Pipeline immediately on the west side of the Haw River, cross the river again near State Highway 54, and terminate at MP 72.5

Mountain Valley evaluated FERC Alternative 1 between MP 63.9 and MP 72.5 (*see* Figure 10-1). At MP 63.9, FERC Alternative 1 extends in a southerly direction for approximately 4.69 miles to MP 68.6 of the preferred route. Within this section, the alternative crosses agricultural and forested land, Deep Creek Church Road, Sandy Cross Road, and Meeting Ground Road. It then collocates with the existing Cardinal Pipeline Company, LLC ("Cardinal Pipeline") on the east side of the Haw River for approximately 2.2 miles. At MP 68.6 of the preferred route, FERC Alternative 1 extends southwest for approximately 0.1 mile and crosses agricultural land and the Haw River. At this point, the alternative remains on the west side of the Haw River and turns in a more southerly direction continuing to be collocated with the existing Cardinal Pipeline for approximately 3.4 miles. Within this segment, the alternative crosses mixed forested and agricultural land, West Main Street, parallels the eastern boundary of the Challenge Golf Club for approximately 1.3 miles, and crosses Interstate 40/85. FERC Alternative 1 turns west, southwest, south, and southeast and crosses forested and agricultural land, State Highway 54/E. Harden Street, Cooper Road, and the Haw River to rejoin the preferred route at MP 72.5.

As shown in Table 10-1, the primary advantages of FERC Alternative 1 are:

- crosses 33 fewer parcels;
- affects fewer residences within 50 feet of workspace;
- collocates with existing rights-of-way for approximately 5.7 more miles; and
- affects 0.8 fewer acres of forested land.

The primary disadvantages of FERC Alternative 1 are:

- greater length and land disturbance;
- crosses six more waterbodies and eight more wetlands; and
- affects 6.6 more acres of wetlands and 7.4 more acres of agricultural land.

Potential constructability concerns of FERC Alternative 1 are:

- two crossings of the Haw River;
- limited area for workspace layout at the Haw River crossings and along the alternative route due to an existing golf course, existing utility infrastructure and residential areas;
- access to the alternative route is limited and would likely need to be constructed.

Table 10-1

Comparison of the Preferred Route and FERC Alternative 1

Feature	Preferred Route	FERC Alternative 1	Difference
Total length (miles)	8.69	8.76	+0.07
Construction right-of-way (acres) a/	105.4	106.3	+0.09
Permanent right-of-way (acres) a/	52.7	53.1	+0.04
Total number of parcels crossed	87	54	-33
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	1 / 3	1 / 1	0 / -2
Number of waterbodies crossed	17	23	+6
Number of NWI wetlands crossed	1	9	+8
Total NWI wetland crossing length (feet)	26	3,990	+3,964
NWI wetlands within construction ROW (acres) b/	0.17	6.8	+6.63
Agricultural land within construction ROW (acres)	26.9	19.5	-7.4
Forested land within construction ROW (acres)	53.4	52.6	-0.8
Length parallel or adjacent to existing ROW (miles)	0.25	5.95	+5.7

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
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/
USGS – U.S. Geological Survey - http://www.usgs.gov/
NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

2. An alternative route that would avoid steep terrain and reduce the need for construction near residences between MP 68.5 and MP 72.5 in Alamance County. This alternative would deviate from the planned pipeline route at MP 68.5, cross to the west side of the Haw River south of US Highway 70, collocate with the existing Cardinal Pipeline along the Haw River, cross the river heading east near State Highway 54, and terminate at MP 72.5.

Mountain Valley evaluated FERC Alternative 2 between MP 68.6 and MP 72.5 (*see* Figure 10-2). This portion of FERC Alternative 2 is the same as FERC Alternative 1 from MP 68.6 and MP 72.5 described above. At MP 68.6, FERC Alternative 2 turns southwest for approximately 0.1 mile and crosses agricultural land and the Haw River. It then turns in a more southerly direction and is collocated with the existing Cardinal Pipeline for approximately 3.4 miles and crosses mixed forested and agricultural land, West Main Street, parallels the eastern boundary of the Challenge Golf Club for approximately 1.3 miles, and crosses Interstate 40/85. FERC Alternative 2 then turns west, southwest, south, and southeast and crosses forested and agricultural land, State Highway 54/E. Harden Street, Cooper Road, and the Haw River to rejoin the preferred route at MP 72.5.

As shown in Table 10-2, the primary advantages of FERC Alternative 2 are:

- crosses 13 fewer parcels,
- affects fewer residences within 25 and 50 feet of workspace;
- collocates with existing rights-of-way for approximately 3.3 more miles; and
- affects 3.2 fewer acres of forested land.

The primary disadvantages of FERC Alternative 2 are:

- greater length and land disturbance;
- crosses four more waterbodies and nine more wetlands; and
- affects 6.8 more acres of wetlands and 0.4 more acre of agricultural land.

Potential constructability concerns of FERC Alternative 2 are:

- two crossings of the Haw River;
- limited area for workspace layout at the Haw River crossings and along the alternative route due to an existing golf course, existing utility infrastructure and residential areas;

Table 10-2

Comparison of the Preferred Route and FERC Alternative 2

Feature	Preferred Route	FERC Alternative 2	Difference
Total length (miles)	3.94	4.07	+0.13
Construction right-of-way (acres) a/	47.9	49.5	+1.6
Permanent right-of-way (acres) a/	23.9	24.7	+0.8
Total number of parcels crossed	44	31	-13
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	1 / 3	0 / 0	-1 / -3
Number of waterbodies crossed	8	12	+4
Number of NWI wetlands crossed	0	9	+9
Total NWI wetland crossing length (feet)	0	4,162	+4,162
NWI wetlands within construction ROW (acres) b/	0.07	6.9	+6.83
Agricultural land within construction ROW (acres)	6.5	6.9	+0.4
Forested land within construction ROW (acres)	23.4	20.2	-3.2
Length parallel or adjacent to existing ROW (miles)	0.25	3.57	+3.32

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
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
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NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

3. An alternative route that would reduce the number of residences affected between MP 65.5 and MP 67 in Alamance County. This alternative should go further east of the planned route to increase the separation of the pipeline and the residences.

Mountain Valley evaluated FERC Alternative 3 between MP 65.45 and MP 67.0 (*see* Figure 10-3). At MP 65.45, FERC Alternative 3 extends northeast and east for approximately 0.7 mile and crosses agricultural and forested land and North Forville Road. It then turns in a more southerly direction for approximately 1.3 miles and crosses agricultural and forested land, Sandy Cross Road, and an existing electric transmission easement. It rejoins the Preferred Route at MP 67.0.

As shown in Table 10-3, the primary advantages of FERC Alternative 3 are:

- crosses two fewer parcels; and
- affects 0.4 fewer acres of forested land.

The primary disadvantages of FERC Alternative 3 are:

- greater length and land disturbance; and
- affects 5.0 more acres of agricultural land.

Potential constructability concerns of FERC Alternative 3 are:

- none identified based on initial review.

Table 10-3

Comparison of the Preferred Route and FERC Alternative 3

Feature	Preferred Route	FERC Alternative 3	Difference
Total length (miles)	1.54	2.03	+0.49
Construction right-of-way (acres) a/	18.9	24.7	+5.8
Permanent right-of-way (acres) a/	9.4	12.3	+2.9
Total number of parcels crossed	16	14	-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
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)	6.6	11.6	+5.0
Forested land within construction ROW (acres)	10.9	10.5	-0.4
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.
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
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ESRI - GIS Mapping - http://www.esri.com/

4. An assessment of an alternative that would reduce the number of residences affected between MP 65.6 and MP 70.4 in Alamance County. This alternative would deviate from the planned pipeline route at MP 65.6 traveling northeast to cross State Highway 49 immediately north of the State Route 1921 intersection. From this point, the alternative would travel east along State Route 1921 and travel south collocating with the Duke Powerline, crossing State Route 1921, State Route 1927, State Highway 70, and State Route 1936 before terminating at MP 70.4.

Mountain Valley evaluated FERC Alternative 4 between MP 65.6 and MP 70.4 (see Figure 10-4). At MP 65.6, FERC Alternative 4 extends in an easterly direction for approximately 3.8 miles and crosses agricultural and forested land. Within this segment, the alternative route crosses North Forville Road, State Highway 49, and Johnson Road. It then turns in a south-southwest direction for approximately 5.8 miles and crosses agricultural and forested land, and several road / railroads including Mebane Rodgers Road/State Route 1921, Dewitt Drive, Bason Road/State Route 1927, U.S. Highway 70/E. Main Street, a railroad track, Stone Street Extension/State Route 1936, and Tollingwood Road. It rejoins the preferred route at MP 70.4.

As shown in Table 10-4, the primary advantages of FERC Alternative 4 are:

- affects fewer residences within 25 and 50 feet of workspace; and
- collocates with existing rights-of-way for an additional 1.8 miles.

The primary disadvantages of FERC Alternative 4 are:

- greater length and land disturbance;
- affects three more parcels;
- crosses two more waterbodies and four more wetlands; and
- affects 0.5 more acre of wetlands, 30 more acres of agricultural land, and 18.7 more acres of forested land.

Potential constructability concerns of FERC Alternative 4 are:

- none identified based on initial review.

Table 10-4

Comparison of the Preferred Route and FERC Alternative 4

Feature	Preferred Route	FERC Alternative 4	Difference
Total length (miles)	4.81	9.64	+4.83
Construction right-of-way (acres) a/	58.5	117	+58.5
Permanent right-of-way (acres) a/	29.2	58.5	+29.3
Total number of parcels crossed	54	57	+3
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	1 / 2	0 / 0	-1 / -2
Number of waterbodies crossed	12	14	+2
Number of NWI wetlands crossed	1	5	+4
Total NWI wetland crossing length (feet)	26	321	+295
NWI wetlands within construction ROW (acres) b/	0.17	0.69	+0.52
Agricultural land within construction ROW (acres)	7.4	37.4	+30
Forested land within construction ROW (acres)	36.4	55.1	+18.7
Length parallel or adjacent to existing ROW (miles)	0.17	1.95	+1.78

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
ROW = right-of-way. NWI = National Wetland Inventory

Information Sources:

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NC Parcel Boundaries and Standard Fields - http://data.nconemap.gov/geoportal/catalog/search/resource/details.page
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NHD – National Hydrography Dataset - http://nhd.usgs.gov/
ESRI - GIS Mapping - http://www.esri.com/

5. An alternative route that would reduce the number of residences affected between about MP 71 and MP 72.5 in Alamance County. This alternative should go further east of the planned route to increase the separation of the pipeline and the residences.

Mountain Valley evaluated FERC Alternative 5 between MP 71.4 and MP 72.5 (see Figure 10-5). At MP 71.4, FERC Alternative 5 extends in an east/southeast direction for approximately 0.6 mile and crosses agricultural and forested land and Jimmie Kerr Road. It then turns in a south-southwest direction for approximately 1.7 miles and crosses agricultural and forested land, Cherry Lane, Jimmie Kerr Road, and State Highway 54/E. Harden Street before rejoining the preferred route at MP 72.5.

As shown in Table 10-5, the primary advantages of FERC Alternative 5 are:

- affects fewer residences within 50 feet of workspace; and
- affects 0.2 fewer acres of forested land.

The primary disadvantages of FERC Alternative 5 are:

- greater length and land disturbance; and
- affects four more parcels and 8.5 additional acres of agricultural land.

Potential constructability concerns of FERC Alternative 5 are:

- none identified based on initial review.

Table 10-5

Comparison of the Preferred Route and FERC Alternative 5

Feature	Preferred Route	FERC Alternative 5	Difference
Total length (miles)	1.21	2.32	+1.11
Construction right-of-way (acres) a/	14.8	28.2	+13.4
Permanent right-of-way (acres) a/	7.4	14.1	+6.7
Total number of parcels crossed	16	20	+4
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	0 / 1	0 / 0	0 / -1
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)	3.0	11.5	+8.5
Forested land within construction ROW (acres)	9.5	9.3	-0.2
Length parallel or adjacent to existing ROW (miles)	0.08	0	-0.08

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
ROW = right-of-way. NWI = National Wetland Inventory

Information Sources:

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

6. An alternative route that further increases the miles of collocation of the planned pipeline and the existing Duke Powerline easement between MP 58.25 and MP 62 in Alamance County.

Mountain Valley evaluated FERC Alternative 6 between MP 58.2 and MP 62.0 (see Figure 10-6). At MP 58.2, FERC Alternative 6 extends south and is collocated with a Duke Energy electric transmission easement for approximately 2.9 miles. It crosses agricultural and forested land, Burch Bridge Road and Iseley School Road. The alternative is collocated with an existing utility easement between Iseley School Road and Huffinese Drive (approximately 0.9 mile). It continues in an easterly direction and crosses agricultural and forested land before it rejoins the preferred route at MP 62.0.

As shown in Table 10-6, the primary advantages of FERC Alternative 6 are:

- affects 4.0 fewer acres of agricultural land; and
- collocates with existing rights-of-way for an additional 1.7 miles.

The primary disadvantages of FERC Alternative 6 are:

- greater length and land disturbance;
- affects seven more parcels;
- affects more residences within 25 and 50 feet of workspace;
- crosses five more waterbodies and one more wetland; and
- affects 0.2 more acre of wetlands and 3.6 additional acres of forested land.

Potential constructability concerns of FERC Alternative 6 are:

- none identified based on initial review.

Table 10-6

Comparison of the Preferred Route and FERC Alternative 6

Feature	Preferred Route	FERC Alternative 6	Difference
Total length (miles)	3.74	4.38	+0.64
Construction right-of-way (acres) a/	45.6	53.3	+7.7
Permanent right-of-way (acres) a/	22.7	26.6	+3.9
Total number of parcels crossed	21	28	+7
Number of residences within 25 and 50 feet of the edge of the construction ROW (and associated additional temporary workspace)	0 / 0	1 / 1	+1 / +1
Number of waterbodies crossed	5	10	+5
Number of NWI wetlands crossed	1	2	+1
Total NWI wetland crossing length (feet)	35	131	+96
NWI wetlands within construction ROW (acres) b/	0.08	0.28	+0.2
Agricultural land within construction ROW (acres)	21.8	17.8	-4
Forested land within construction ROW (acres)	21.3	24.9	+3.6
Length parallel or adjacent to existing ROW (miles)	0.88	2.54	+1.66

a/ Assuming 100-foot-wide construction ROW and 50-foot-wide permanent ROW.
b/ Assuming 75-foot-wide construction ROW.
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
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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/*

Summary

On July 11, 2018, FERC requested that Mountain Valley evaluate six alternatives as described herein. As the Project moves forward through the FERC Pre-Filing review process and Certificate proceeding, the proposed Project facilities and alternatives will continue to be evaluated. Mountain Valley will provide the results of additional alternative evaluations with its Certificate application expected to be filed in November 2018, and subsequent filings.

MVP Southgate Project - Docket No. PF18-4-000

RESPONSES TO THE FERC ALTERNATIVE ROUTES ANALYSIS REQUEST

Dated July 11, 2018

ATTACHMENTS

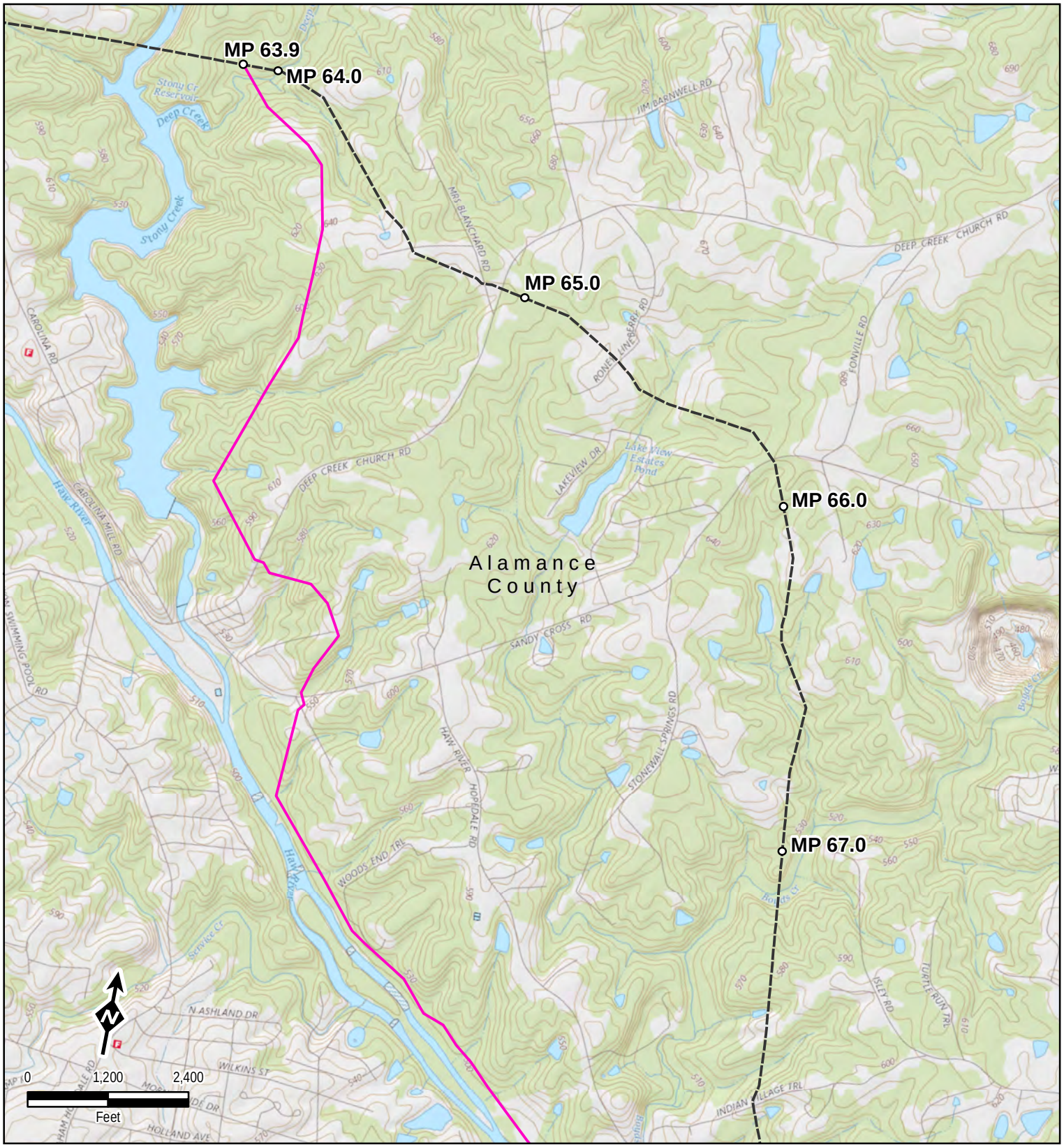
MVP Southgate Project - Docket No. PF18-4-000

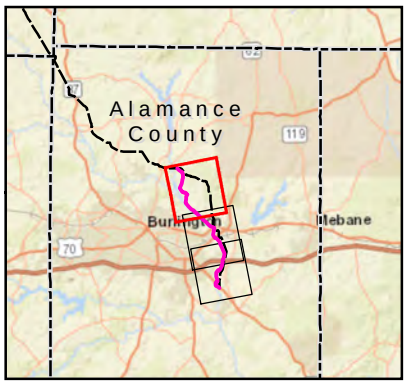
RESPONSES TO THE FERC ALTERNATIVE ROUTES ANALYSIS REQUEST

Dated July 11, 2018

Attachment 10-1

Figures





Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 1
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 24,000 inches
When Printed 8.5x11

Mountain Valley PIPELINE, LLC

Figure 10-1
Sheet 1 of 3

FERC Alternative 1
(USGS Topographic)

TRC
600 Willowbrook Ln
West Chester, PA 19382

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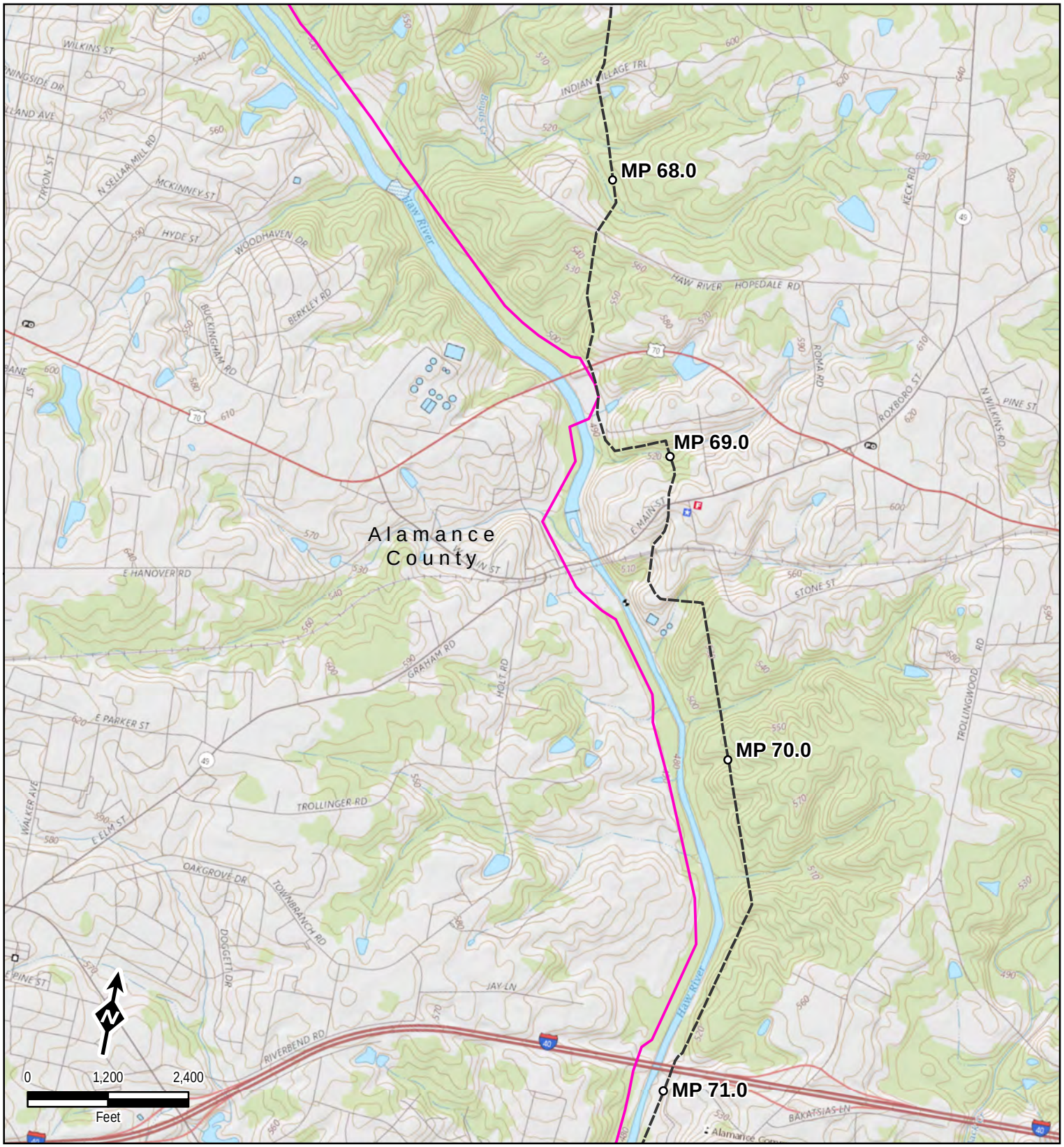
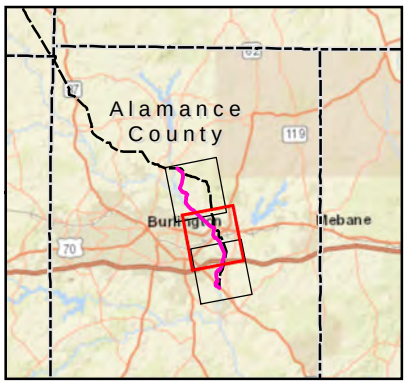




Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 1
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 24,000 inches
When Printed 8.5x11

Mountain Valley PIPELINE, LLC

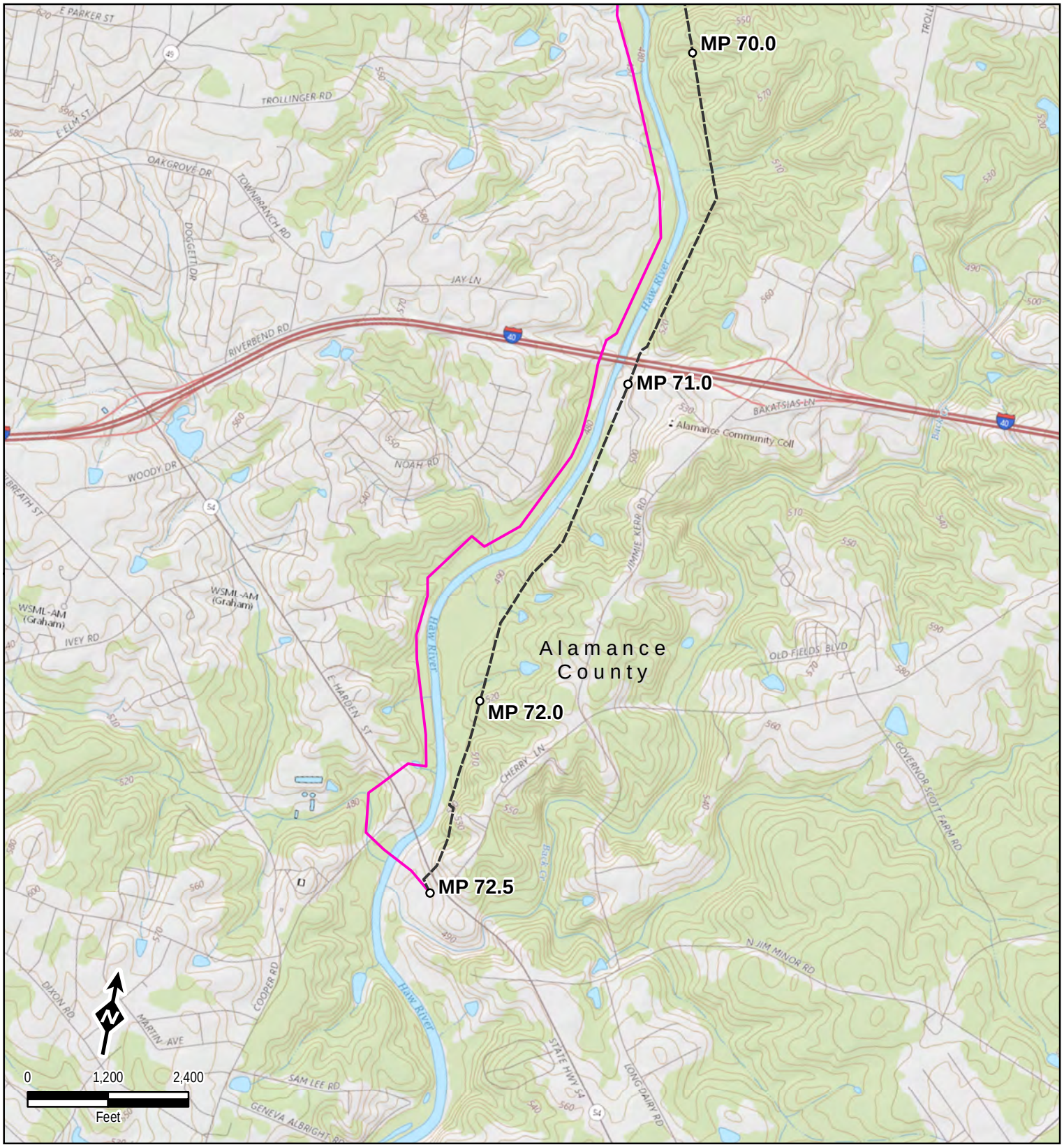
Figure 10-1
Sheet 2 of 3

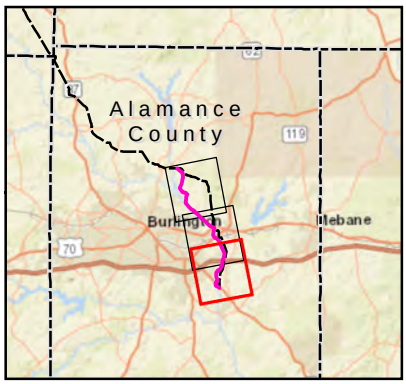
FERC Alternative 1
(USGS Topographic)

TRC
Results you can rely on

600 Willowbrook Ln
West Chester, PA 19382

S:\1-PROJECTS\NEXTERA\300423_MVP_Southgate\6-MXD\Resource_Reports\RR10\Figure 10 MVP Southgate FERC Alternatives.mxd





Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 1
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 24,000 inches
When Printed 8.5x11

Mountain Valley PIPELINE, LLC

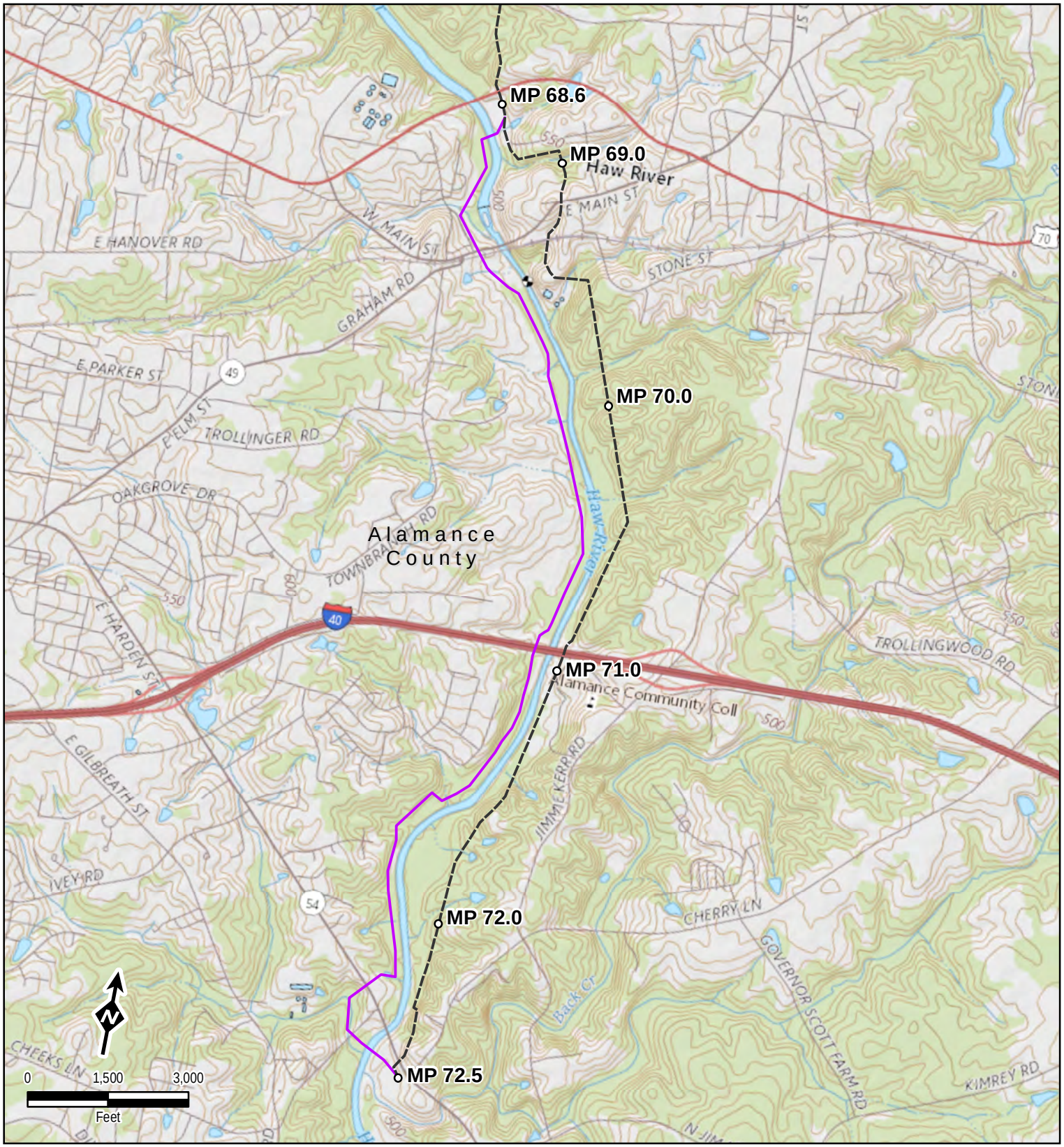
Figure 10-1
Sheet 3 of 3

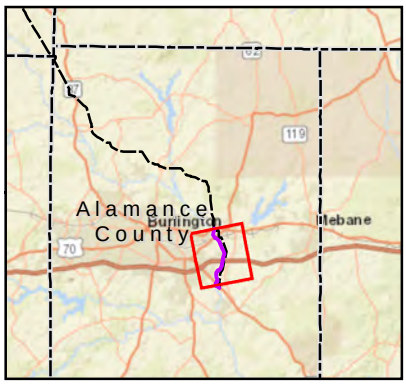
FERC Alternative 1
(USGS Topographic)

TRC
Results you can rely on

600 Willowbrook Ln
West Chester, PA 19382

S:\1-PROJECTS\NEXTERA\300423_MVP_Southgate\6-MXD\Resource_Reports\RR10\Figure 10 MVP Southgate FERC Alternatives.mxd





Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 2
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 30,000 inches
When Printed 8.5x11

Mountain Valley PIPELINE, LLC

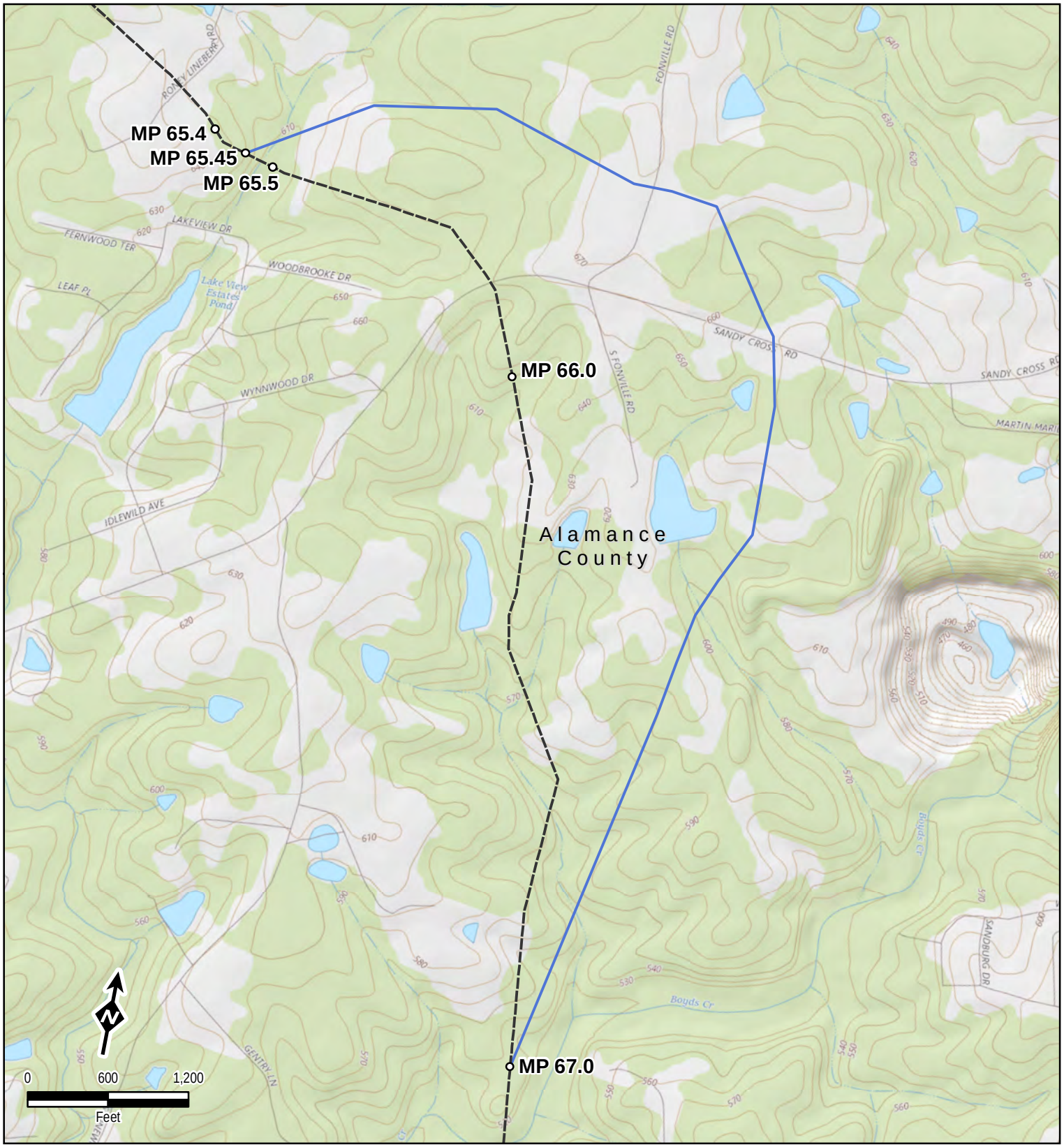
Figure 10-2
Sheet 1 of 1

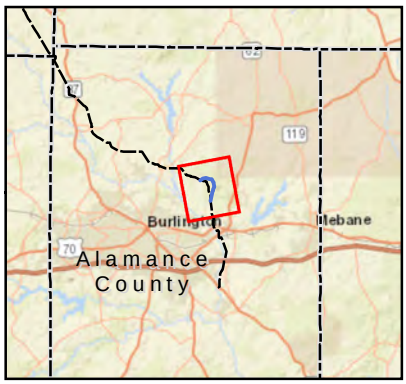
FERC Alternative 2
(USGS Topographic)

TRC
Results you can rely on

600 Willowbrook Ln
West Chester, PA 19382

S:\1-PROJECTS\NEXTERA\300423_MVP_Southgate\6-MXD\Resource_Reports\RR10\Figure 10 MVP Southgate FERC Alternatives.mxd





Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 3
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 12,000 inches
When Printed 8.5x11

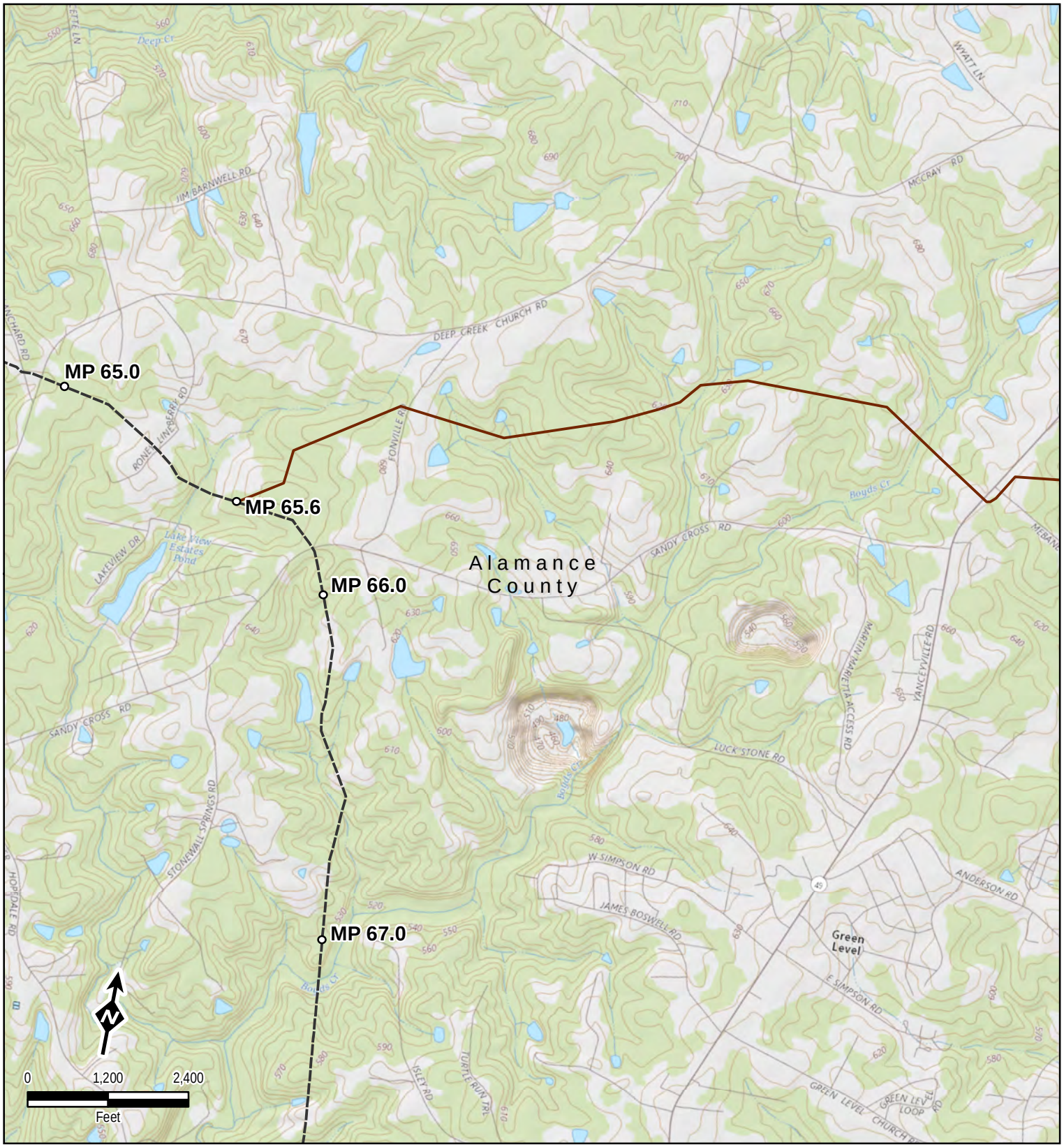
Mountain Valley PIPELINE, LLC

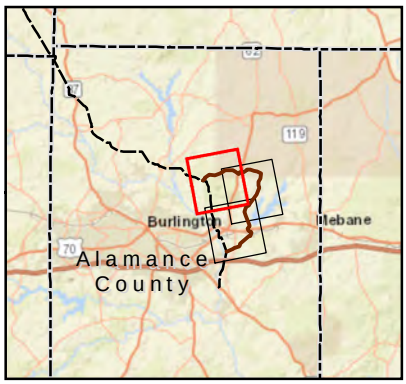
Figure 10-3
Sheet 1 of 1

FERC Alternative 3
(USGS Topographic)

TRC
600 Willowbrook Ln
West Chester, PA 19382

S:\1-PROJECTS\NEXTERA\300423_MVP_Southgate\6-MXD\Resource_Reports\RR10\Figure 10 MVP Southgate FERC Alternatives.mxd





Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 4
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 24,000 inches
When Printed 8.5x11

Mountain Valley PIPELINE LLC

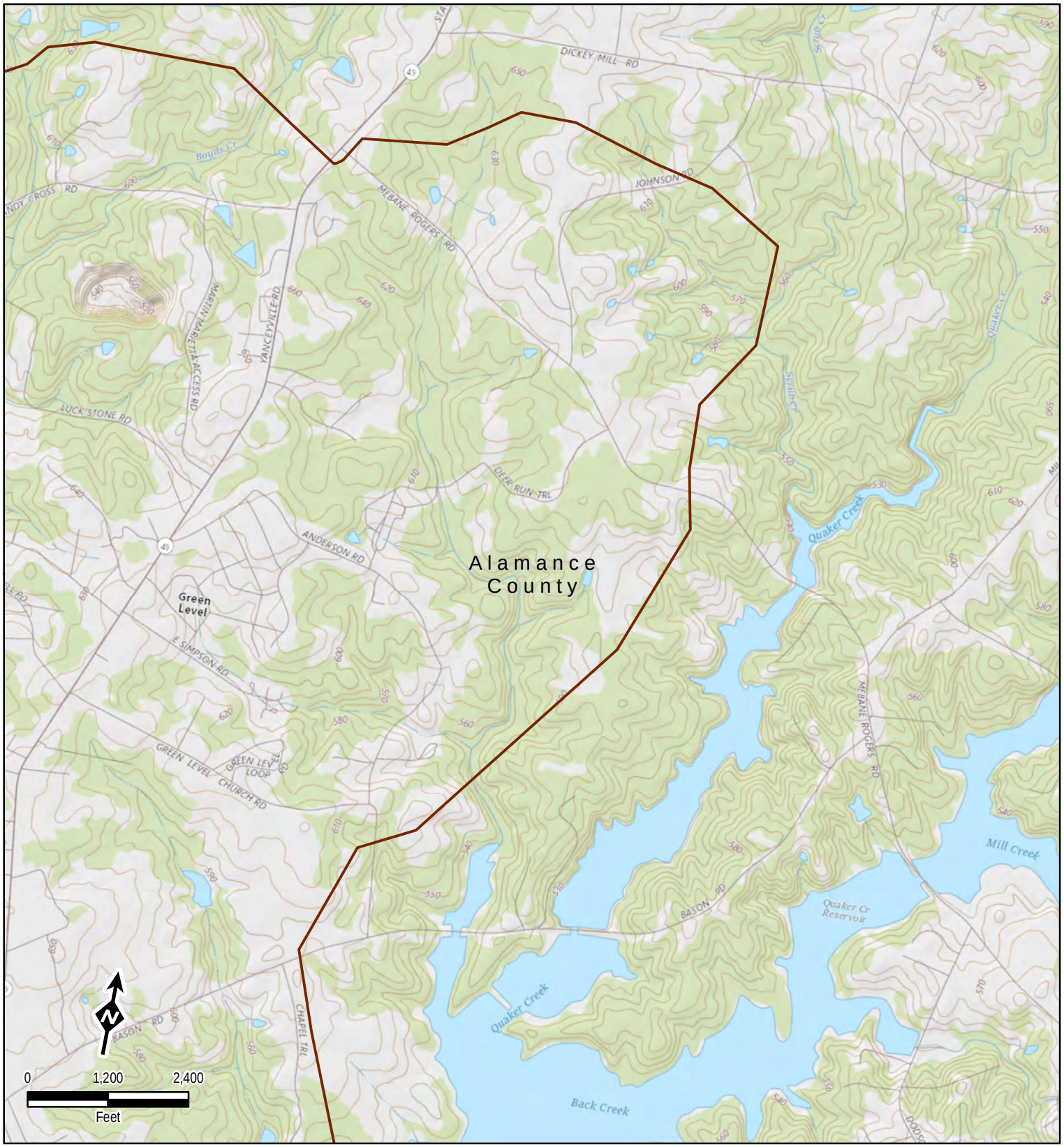
Figure 10-4
Sheet 1 of 3

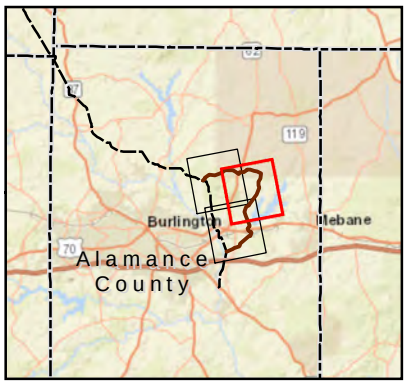
FERC Alternative 4
(USGS Topographic)

TRC
Results you can rely on

600 Willowbrook Ln
West Chester, PA 19382

S:\1-PROJECTS\NEXTERA\300423_MVP_Southgate\6-MXD\Resource_Reports\RR10\Figure 10 MVP Southgate FERC Alternatives.mxd





Legend

- FERC Alternative 4
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 24,000 inches
When Printed 8.5x11

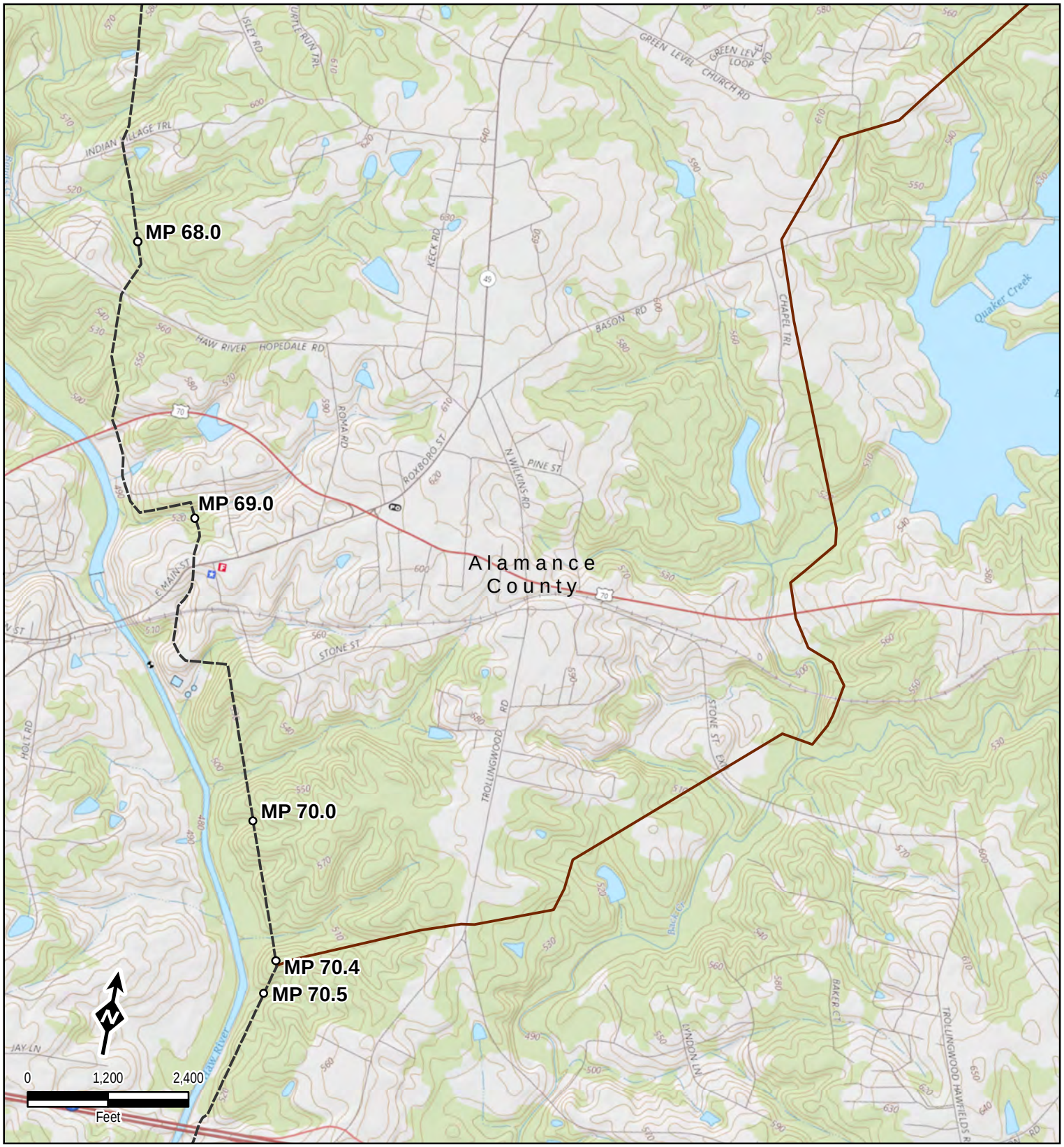
Mountain Valley PIPELINE, LLC

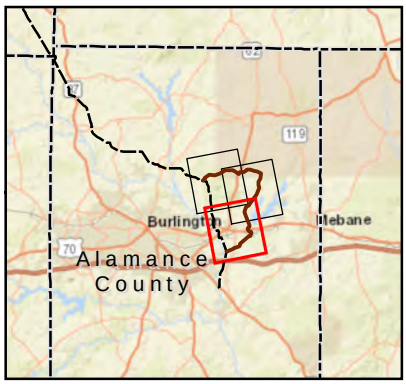
Figure 10-4
Sheet 2 of 3

FERC Alternative 4
(USGS Topographic)

TRC
Results you can rely on
600 Willowbrook Ln
West Chester, PA 19382

S:\1-PROJECTS\NEXTERA\300423_MVP_Southgate\6-MXD\Resource_Reports\RR10\Figure 10 MVP Southgate FERC Alternatives.mxd





Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 4
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 24,000 inches
When Printed 8.5x11

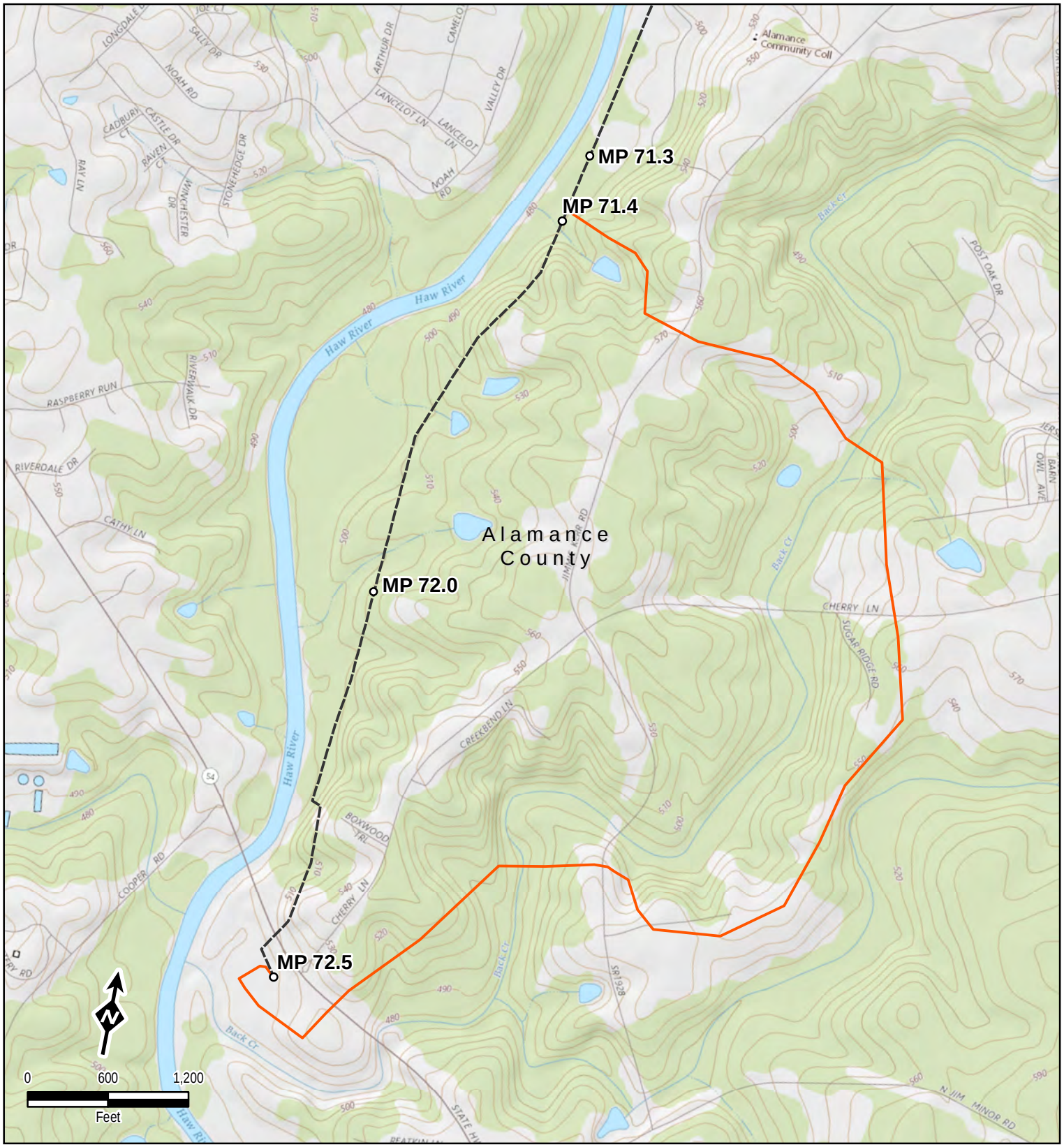
Mountain Valley PIPELINE, LLC

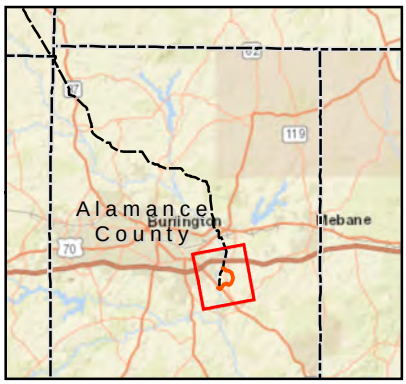
Figure 10-4
Sheet 3 of 3

FERC Alternative 4
(USGS Topographic)

TRC
Results you can rely on
600 Willowbrook Ln
West Chester, PA 19382

S:\1-PROJECTS\NEXTERA\300423_MVP_Southgate\6-MXD\Resource_Reports\RR10\Figure 10 MVP Southgate FERC Alternatives.mxd





Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 5
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 12,000 inches
When Printed 8.5x11

Mountain Valley PIPELINE LLC

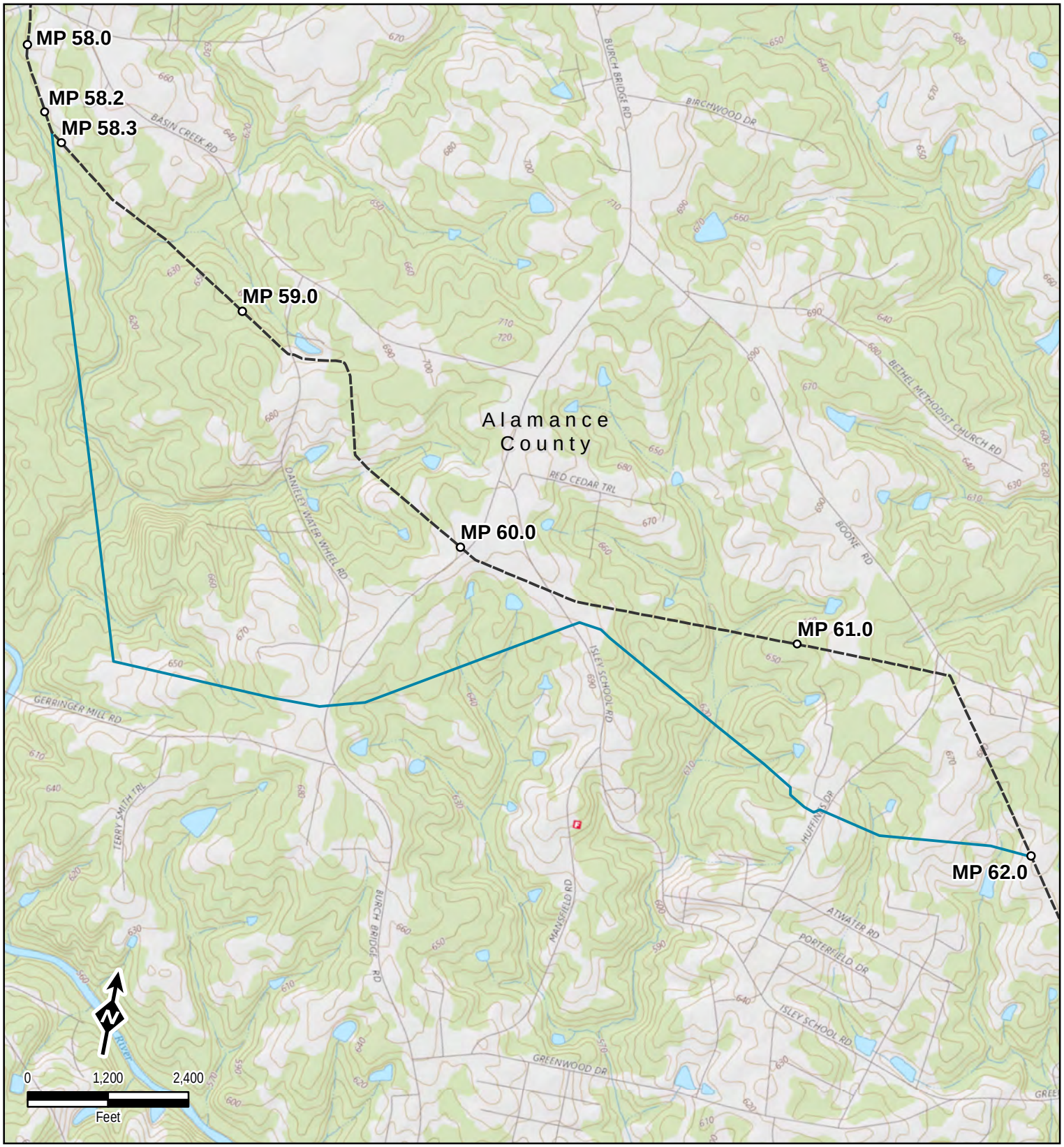
Figure 10-5
Sheet 1 of 1

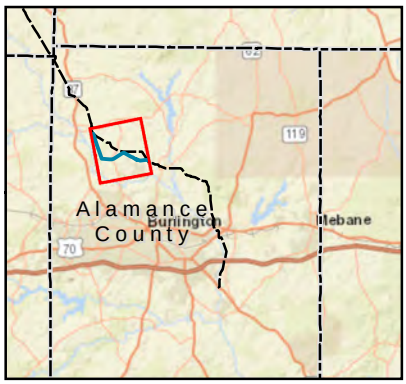
FERC Alternative 5
(USGS Topographic)

TRC
Results you can rely on

600 Willowbrook Ln
West Chester, PA 19382

S:\1-PROJECTS\NEXTERA\300423_MVP_Southgate\6-MXD\Resource_Reports\RR10\Figure 10 MVP Southgate FERC Alternatives.mxd





Legend

- Mileposts
- Preferred Pipeline Route
- FERC Alternative 6
- County Boundary

Data Sources: ESRI, USGS, TRC, EQT

1 inch = 24,000 inches
When Printed 8.5x11

Mountain Valley PIPELINE, LLC

Figure 10-6
Sheet 1 of 1

FERC Alternative 6
(USGS Topographic)

TRC
Results you can rely on

600 Willowbrook Ln
West Chester, PA 19382

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