

**Mountain Valley Pipeline, LLC
Mountain Valley Pipeline Project
Docket No. CP16-10-000**

**Responses to FERC Environmental Information Request
Dated March 31, 2016**

Request:

Resource Report 10 – Alternatives

3. As requested in our EIR dated December 24, 2015 (RR10 Nos. 3 and 8), provide a full data comparison data table and associated assessment for Hybrid Alternative 1 that contains side by side data for three routes: the proposed route, Hybrid Alternative 1A (northern half of the proposed route combined with the southern half of Alternative Route 1), and Hybrid Alternative 1B (northern half of Alternative Route 1 combined with the southern half of the proposed route).

Response:

The requested data comparison table is included in **Attachment DR2 RR10-3a**. A figure showing the requested alternatives is included in **Attachment DR2 RR10-3b**. An assessment of the alternatives is included below.

Hybrid Alternative 1A

Hybrid Alternative 1A route includes the northern half of the proposed route, and the southern half of Alternative Route 1 as described in Section 10.5.2 of Resource Report 10, with the switch being at about MP 135 of the proposed route.

Hybrid Alternative 1A is approximately 309 miles in length and is collocated with existing utilities for approximately 68 miles (22 percent). Hybrid Alternative 1A is located in a predominantly forested, low-density rural area with several small towns and patches of hay and pasture land. Hybrid Alternative 1A crosses the Blue Ridge Parkway, the Jefferson National Forest, and the Appalachian National Scenic Trail adjacent to existing 138-kilovolt (kV) overhead electric transmission lines. Hybrid Alternative 1A crosses within one-half mile of the political boundary of 12 cities or towns and crosses 1.6 miles of National Forest System lands. The alternative crosses approximately 237 miles of forested lands, including 1,518 feet of forested wetland as mapped by the National Wetland Inventory (NWI), and 116 perennial waterbodies.

As described in Section 10.5.2 of Resource Report 10, Mountain Valley has identified concerns crossed by both the northern half and the southern half of Route Alternative 1. Based on aerial flyover review there is approximately 50 miles of severe side slope crossed by the southern half of Route Alternative 1. Based on a model run to evaluate severe side slope along the entire Hybrid Alternative 1A, the alternative crosses about 169 miles of side slope. Mountain Valley believes that Hybrid Alternative 1A would not provide an environmental advantage over the Proposed Route and would present additional construction challenges.

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Hybrid Alternative 1B

Hybrid Alternative 1B route includes the northern half of Route Alternative Route 1 as described in Section 10.5.2 of Resource Report 10, and the southern half of the proposed route, with the switch being at about MP 135 of the proposed route.

Hybrid Alternative 1B is approximately 315 miles in length and is collocated with existing utilities for approximately 77 miles (24 percent). Hybrid Alternative 1B is located in a predominantly forested, low-density rural area with several small towns and patches of hay and pasture land. Hybrid Alternative 1B crosses the Blue Ridge Parkway, the Jefferson National Forest, and the Appalachian National Scenic Trail at locations of new right-of-way. Hybrid Alternative 1B crosses within one-half mile of the political boundary of 15 cities or towns and crosses 3.4 miles of National Forest System lands. The alternative crosses approximately 246 miles of forested lands, including 1,935 feet of forested wetland as mapped by the National Wetland Inventory (NWI), and 116 perennial waterbodies.

As described in Section 10.5.2 of Resource Report 10, Mountain Valley has identified concerns crossed by both the northern half and the southern half of Route Alternative 1. Based on aerial flyover review there is approximately 50 miles of severe side slope crossed by the northern half of Route Alternative 1. Based on a model run to evaluate severe side slope along the entire Hybrid Alternative 1B, the alternative crosses about 176 miles of side slope. Mountain Valley believes that Hybrid Alternative 1B would not provide an environmental advantage over the Proposed Route and would present additional construction challenges.

Respondent: Megan Neylon
Position: Senior Environmental Coordinator
Phone Number: 724-873-3645
Date: April 21, 2016

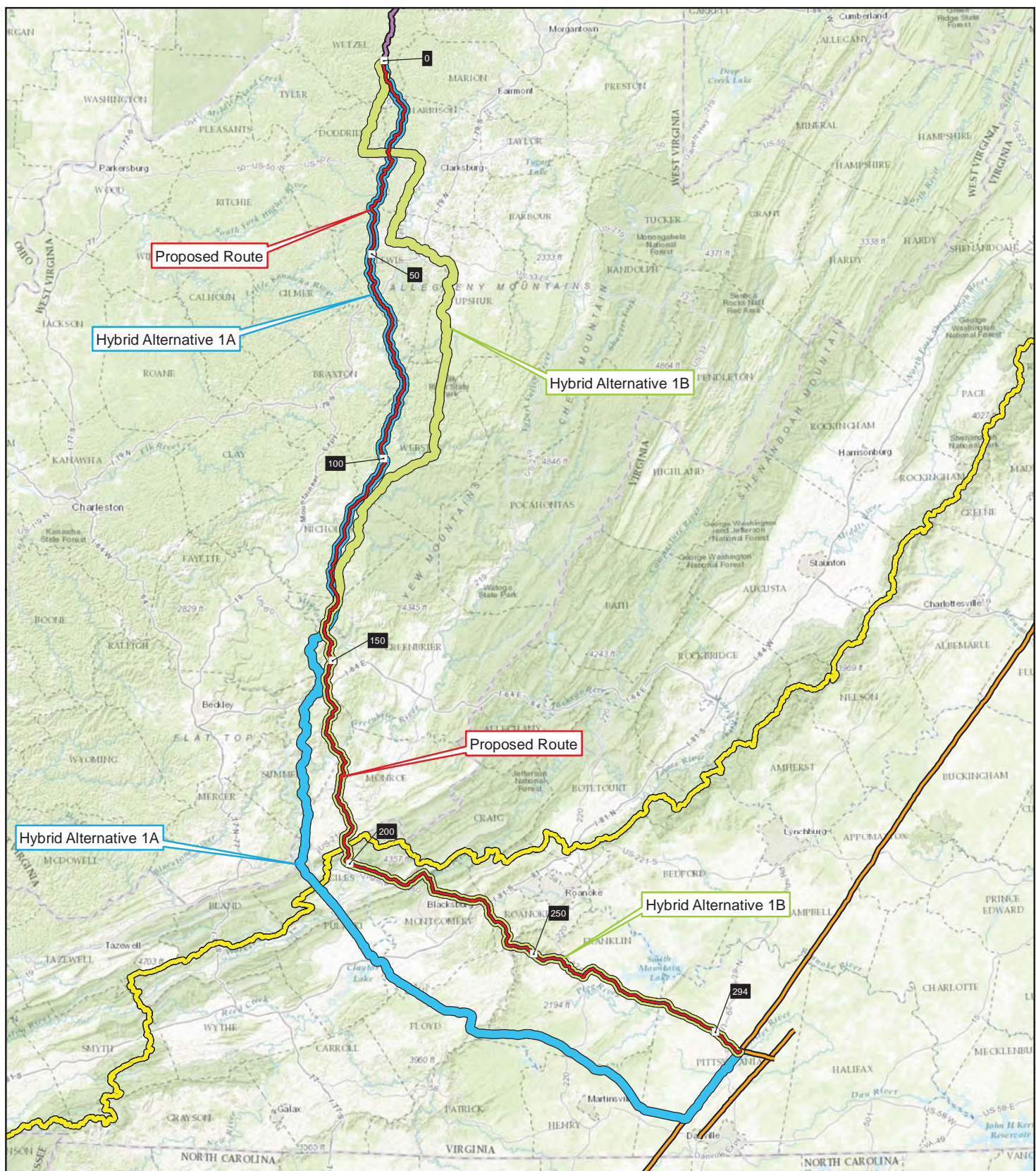
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**Responses to FERC Environmental Information Request #2
Dated March 31, 2016**

ATTACHMENTS

Attachment DR2 RR10-3a

Comparison of Hybrid Alternative 1A, Hybrid Alternative 1B, and the Proposed Route			
Feature	Hybrid Alternative 1A	Hybrid Alternative 1B	Proposed Route
General			
Total length (miles)	309.2	314.7	301.0
Length adjacent to existing ROW (miles)	68.4	76.9	22
Land disturbed within construction ROW (acres) <u>a/</u>	4,682.6	4,765.2	4,556
Land Use			
Populated areas <u>b/</u> within ½ mile (number)	12	15	8
National Forest System lands crossed (miles)	1.6	3.4	3.4
National Forest Wilderness crossed (miles)	0	0	0
Appalachian National Scenic Trail crossings (number)	1	1	1
Blue Ridge Parkway crossings (number)	1	1	1
NRHP designated or eligible historic districts crossed (miles)	0	10.1	10.1
Landowner parcels crossed (number)	1,446 <u>c/</u>	1,451 <u>c/</u>	1,495
Residences within 50 feet of construction work space (number)			63
Resources			
Forested land crossed (miles)	236.9	245.9	245.2
Forested land affected during construction (acres)	3,594.9	3,733.8	3,720.0
Forested land affected during operation (acres)	1,436.5	1,490.7	1,486.0
Interior forest crossed (miles)	139.0	127.4	156.1
Wetlands (NWI) crossed (feet) <u>d/</u>	2,090	2,381	3,299
Forested wetlands crossed (feet) <u>d/</u>	1,518	1,935	1,721
Forested wetlands affected by construction (acres)	2.6	3.2	3.0
Forested wetlands affected by operation (acres)	1.7	2.2	2.0
Perennial waterbody crossings (number) <u>d/</u>	116	116	97
Major (> 100 feet) waterbodies crossed (number)	7	7	5
New River crossings (number)	2	0	0
Shallow bedrock crossed (miles)	114.9	116.8	214.9
Steep slope (>20 percent) crossed (miles)	138.8	156.6	120.0
Side slope crossed (miles)	169.1	176.1	122.8
Landslide potential crossed (miles) <u>e/</u>	220.8	235.6	224.2
Karst area crossed (miles)	37.3	42.3	53.3
<u>a/</u> Assuming 125-foot-wide construction ROW. <u>b/</u> City or town limits as shown in Environmental Systems Research Institute (ESRI) data. <u>c/</u> estimated assuming similar size and number of landowner parcels would be crossed by the alternative as those crossed by the corresponding segment of Proposed Route. <u>d/</u> NWI and NHD data used in order to provide a common comparison between the two routes since field surveys were not conducted along the alternative. Public data on waters with drinking water designation not available. <u>e/</u> areas mapped as High Incidence and/or High Susceptibility from Radbruch-Hall et. al 1982. ROW = right-of-way NRHP = National Register of Historic Places NHD = U.S. Geological Survey National Hydrography Dataset NWI = U.S. Fish and Wildlife Service National Wetland Inventory			



Mountain Valley Pipeline		N NAD 1983 UTM 17N 1:1,625,000 0 25 50 Miles
<p>Figure 10.5-1a Hybrid Alternatives</p> <p>April 2016</p>	Legend <ul style="list-style-type: none"> Milepost Proposed Route Hybrid Alternative 1A Hybrid Alternative 1B Appalachian Trail Existing Equitrans H-302 Line Existing Transco Pipeline 	
	<p>Data Sources: ESRI Streaming Data, 2014, Ventyx 2014.</p>	