

**Mountain Valley Pipeline Project**

**Docket No. CP16-10-000**

**Attachment DR5 Alternatives 6**

DEIS TABLE 3.5.3-1  
(Updated March 2017)

**Status of Minor Route Variations Reported by Stakeholders that Are As Yet Unresolved**

FERC ID / Accession Number	Parcel Number	MP	Summary of Issues	Mountain Valley's Response / Current Status
20150316-5023	WV-WB- 23.01, WV- WB-024, WV- WB-025, WV- WB-025.01, MVP-WB-128, MVP-ATWS- 956	<u>97.7,</u> <u>97.9,</u> <u>98.1,</u> <u>98.2, 98.3</u>	Proposed pipeline route cuts property in half and landowner requested that alignment either be re-routed off property or move alignment to one side of property. Landowner concerned about proximity of pipeline alignment to residence and family cemetery on property.	The proposed route follows contours that are most conducive to pipeline construction. The route cannot be moved due to unsuitable terrain in the nearby area such as side slopes to the east and west. Residences and the cemetery mentioned in the landowner's comments have been avoided. The landowner is actively negotiating an easement with Mountain Valley.
20150609-5017	WV-WB- 023.01, 024, 025, 025.01	<u>97.7,</u> <u>97.9, 98.2</u>	Landowner requested re-route to minimize impacts on timber production on property and family cemetery.	The proposed route follows contours that are most conducive to pipeline construction. The route cannot be moved due to unsuitable terrain in the nearby area such as side slopes to the east and west. Residences and the cemetery mentioned in the landowner's comments have been avoided. The landowner is actively negotiating an easement with Mountain Valley.

DEIS TABLE 3.5.3-1 (continued)  
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FERC ID / Accession Number	Parcel Number	MP	Summary of Issues	Mountain Valley's Response / Current Status
20150615-5054	WV-NI-004, WV-NI- 005, WV-NI-006, WV- NI-007	<u>111.5</u>	Landowner requested a re-route to avoid an area experiencing development in the town of Craigsville.	Mountain Valley reached an agreeable minor route adjustment with this landowner that was incorporated into the October 2016 Proposed Route. The landowner is actively negotiating an easement with Mountain Valley.
20150610-5243	WV-NI-004, 005, 006, 007	<u>111.5</u>	Landowner requested a re-route to avoid an area experiencing development in the town of Craigsville.	Mountain Valley reached an agreeable minor route adjustment with this landowner that was incorporated into the October 2016 Proposed Route. The landowner is actively negotiating an easement with Mountain Valley.
20150615-5185	WV-GR-022	<u>140.83</u>	Coal mining company concerned that Mountain Valley is not aware that proposed route is within their mining permit space and requests a re-route.	Mountain Valley evaluated the suggested re-routes and determined that they are not viable due to stream and wetland impacts and constructability concerns. Mountain Valley has consulted with mining engineers to verify that the current route is viable as per the guidelines of the Mining Area Construction Plan. Any adverse effects the pipeline may have on the coal reserves will be addressed with the property owner at the time mining occurs.
20150120-0096	WV-SU-028	<u>167.1</u>	Landowner requested a re-route to avoid area of potential future residence and to minimize impacts on timber production.	Mountain Valley reached an agreeable minor route adjustment with this landowner that was incorporated into the October 2016 Proposed Route. The landowner is actively negotiating an easement with Mountain Valley.
20150428-0056	WV-SU-029	<u>167.9</u>	Landowner requested a re-route to avoid cutting the property in half and reducing the amount of timber available for heating source.	Mountain Valley reached an agreeable minor route adjustment with this landowner that was incorporated into the October 2016 Proposed Route. The landowner is actively negotiating an easement with Mountain Valley.

DEIS TABLE 3.5.3-1 (continued)  
(Updated March 2017)

**Status of Minor Route Variations Reported by Stakeholders that Are As Yet Unresolved**

FERC ID / Accession Number	Parcel Number	MP	Summary of Issues	Mountain Valley's Response / Current Status
20160223-5034	WV-SU-046	<u>171.3</u>	Landowner requested a re-route to minimize impacts on shallow wells, streams, and residential septic systems on the property.	Mountain Valley conducted a desktop analysis and field reviews (where accessible) of the FERC-proposed route variation to avoid parcel WV-SU-046 adjacent to the Greenbrier River crossing. Mountain Valley found obstacles that create construction issues with the FERC's proposed variation. The first obstacle is WV Route 3. Mountain Valley currently plans to cross WV Route 3 via conventional bore due to it being the main thoroughfare between the towns of Hinton and Alderson. At the FERC-proposed crossing, a conventional bore is not feasible due to a rock high wall immediately to the north and the Greenbrier River immediately to the south such that adequate workspaces for the required bore pits are not present. Therefore, an open-cut crossing would be required. The second construction issue is the hillside to the north of WV Route 3. Desktop evaluation shows the slope to be about 70%, which would require winch-hill construction techniques. Mountain Valley would require a new access road for equipment access from either WV Route 3 or WV Route 6 (East Clayton Rd.) which is not feasible given the terrain in the area.
20160601-5121	VA-GI-035, VA-GI-035.01	<u>204.3</u>	The New River Conservancy (NRC) stated it holds a perpetual conservation easement for the parcel, also known as the "Sizemore Easement" in its letter dated May 31, 2016. The NRC indicated that it was unable to grant Mountain Valley the right to cross the property under the legally binding terms of the conservation easement.	Mountain Valley indicated that it had identified a minor route variation (New River Conservancy Variation) that would avoid the conservation easement by departing from the proposed route near MP 202.3, relocating the pipeline to the west and south, and then rejoining the proposed route near MP 203.8. The Variation would be 0.4 mile longer and affect about 7 more acres during construction, be less collocated with existing right-of-way, and cross more forest, karst, and side slopes. Given consideration of these factors, the FERC staff cannot conclude that the New River Conservancy Variation is preferable to the proposed route at this time. However, the FERC staff acknowledge the legitimate and ongoing concerns of the NRC as well as the value of continued coordination among the parties. Mountain Valley changed the name of this variation to Variation 82 in its October 2016 Proposed Route. In addition to the above comments, Variation 82 increases the amount of winch-hill construction techniques required.

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FERC ID / Accession Number	Parcel Number	MP	Summary of Issues	Mountain Valley's Response / Current Status
Not applicable	multiple	<u>219.9</u>	The route filed in Mountain Valley's application crossed Craig Creek, which supports populations of endangered mussels, three times on both private and FS lands.	Mountain Valley is coordinating with the FS and has developed a draft minor route variation (FS 71) that would modify the crossing of Craig Creek, reducing the number of crossings from 3 to 1. However, coordination is not yet complete. The October 2016 Proposed Route incorporated the noted minor route variation as well as a decreased LOD in areas where the pipeline parallels Craig Creek.
20160219-5147	VA-MO-030	<u>N/A</u>	Landowner requested a re-route to avoid property proposed for a future residence.	Due to the incorporation of the Mt. Tabor Variation into the October 2016 Proposed Route, this parcel is no longer affected by the Project.
20150615-5061	VA-MO-054	<u>N/A</u>	Landowner requested a re-route to minimize impacts on a naturally reproducing population of brown trout downstream of the proposed route.	Due to the incorporation of the Mt. Tabor Variation into the October 2016 Proposed Route, this parcel is no longer affected by the Project.
20150616-5100	VA-RO-5149, VA-RO- 4118	<u>239.3,</u> <u>242.5</u>	Landowner requested a re-route to avoid property which has a conservation easement and to minimize impacts of sedimentation related to construction.	Mountain Valley has proposed utilizing existing roads on these parcels as access roads. There are no other county/state roads in the area that could be used to access the right-of-way. In addition, utilizing existing roads avoids the construction of additional access roads and associated impacts.
20160406-5119	VA-RO-040, VA-RO- 042, VA-RO- 043, VA- RO- 030 (AR-RO- 281)	<u>241.0 –</u> <u>241.7</u>	Landowner requested a re-route to avoid impacts on a residential driveway, bridge, family cemetery, creek, and children play area.	Mountain Valley conducted surveys on the parcel and evaluated a minor route deviation that addresses the landowner's concerns. Desktop analysis shows a minor route deviation to address the landowner's concerns is feasible, but would shift the route onto the properties of adjacent landowners.
20150615-5089	VA-FR-017.12	<u>253.5</u>	Landowner concerned about pipeline route impacts on water resources, geology, and cultural resources including the use of existing easements.	Mountain Valley's current alignment follows the ridge-top at the edge of the property. In order to avoid this parcel, Mountain Valley would have to shift east, which is not feasible because it would require severe side-slope construction. Mountain Valley will perform all necessary surveys and avoid or mitigate resources on this parcel. Collocation is not possible due to the lack of an existing corridor in the vicinity of the proposed route.

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20151127-5073	VA-FR-017.11; VA-FR-017.15	<u>253.1</u> – <u>254.6</u>	Landowner requested re-route to avoid impacts on property including the use of existing easements.	Mountain Valley's current alignment follows the ridge-top across these properties. In order to avoid this parcel, Mountain Valley would have to shift its alignment, which is not feasible because it would require severe side-slope construction. In addition, shifting the alignment would bring it closer to the residences to the west of VA-FR-017.11. Mountain Valley has routed the pipeline through an area on VA-FR-017.15 that has been previously clear-cut, which minimizes environmental impacts.
20150129-5217	VA-PI-099	<u>300.9</u>	Landowner requested a re-route to minimize impacts on farmland on the property.	Mountain Valley has addressed the landowner's concerns and signed an easement.
20151127-5076	VA-PI-100; 101; 102	<u>301.4</u> – <u>301.7</u>	Landowner requested a re-route to avoid impacts on family farm operations including the use of existing easements.	Mountain Valley has reached an agreeable route with the landowner and has acquired a right of way easement. No further coordination is required.