

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

**Implementation Plan  
December 2017 Supplement**

**Attachment IP-16c**

Variation 250 Cultural Impacts								
Site ID	SHPO ID	Nearest MP	Period	Discipline	Status	Report Reference	Recommendation	SHPO Opinion
VA-MO-503	44MY0584	222.7	Multi-Component	Archaeological	Not Eligible	Combined County Report Mountain Valley Pipeline Project Phase IB Combined County Archaeological Survey Report, Addendum I Giles, Montgomery, Roanoke, and Franklin Counties, Virginia and Phase II Archaeological Evaluation Site 44FR0412 Franklin County, Virginia	Not Eligible (January 2017)	Concurrence Received August 30, 2017.
VA-MO-S-505	060-5197	222.9	Historic	Architectural	Not Eligible	Addendum to the Phase I Reconnaissance Architectural Survey for the Mountain Valley Pipeline: Summary Report Pittsylvania, Franklin, Roanoke, Montgomery, Craig, and Giles Counties, Virginia (March 2017). Prepared for Mountain Valley Pipeline, LLC. Prepared by New South Associates, Stone Mountain, Georgia.	Not Eligible (March 2017)	Concurrence Received June 27, 2017 from VDHR
VA-MO-S-017	060-5200	222.7	Historic	Architectural	Pending SHPO concurrence	Phase I Historic Architectural Survey Supplemental Information, Giles, Franklin, Montgomery and Roanoke Counties, Virginia Prepared for Mountain Valley Pipeline, LLC. Prepared by Tetra Tech, Inc. Parsippany, New Jersey and New South Associates, Stone Mountain Georgia).	Not Eligible (TBD 2017)	Pending
VA-MO-S-504	060-0332	221.9	Historic	Architectural	Not Eligible	Addendum to the Phase I Reconnaissance Architectural Survey for the Mountain Valley Pipeline: Summary Report Pittsylvania, Franklin, Roanoke, Montgomery, Craig, and Giles Counties, Virginia (June 2017). Prepared for Mountain Valley Pipeline, LLC. Prepared by New South Associates, Stone Mountain, Georgia.	Not Eligible (June 2017)	Concurrence Received June 27, 2017.

Waterbodies Crossed by Variation 250 of the MVP Project																	
State	County	Waterbody ID	Waterbody Name <u>a/</u>	MP	Flow Regime <u>b/</u>	Water Type <u>c/</u>	Top of Bank Width (ft)	Length of Pipeline Crossing (ft)	Temporary Acreage Impact	Permanent Acreage Impact	Project Component	Component ID	Crossing Method <u>d/</u>	FERC Classification	Fishery Type <u>e/</u>	Fish Species <u>f/</u>	Time of Year Restriction <u>g/</u>
Virginia	Montgomery	S-EF62	Mill Creek	222.3	Per	RPW	9	9.0	0.01575	---	Permanent Easement/Temporary Workspace	-	OCDD/TF	Minor	-	-	-
Virginia	Montgomery	S-EF65	UNT to Mill Creek	222.2	Int	RPW	12	30.0	0.04182	---	Permanent Easement/Temporary Workspace	-	OCDD/TF	Intermediate	WT	Brown Trout	October 1 - March 31
Virginia	Montgomery	S-IJ52	UNT to Mill Creek	222.7	Per	RPW	7	7.3	0.01351	---	Permanent Easement/Temporary Workspace	-	OCDD/TF	Minor	-	-	-
Virginia	Montgomery	S-MN21	UNT to Mill Creek	221.2	Per	RPW	5	5.1	0.00917	---	Permanent Easement/Temporary Workspace	-	OCDD/TF	Minor	-	-	-
Virginia	Montgomery	S-MN22		221.5	Eph	NRPW	3	4.5	0.00662	---	Permanent Easement/Temporary Workspace	-	OCDD/TF	Minor	-	-	-
<p>Notes:</p> <p><u>a/</u> UNT - Unnamed Tributary</p> <p><u>b/</u> Flow Regime: Eph = Ephemeral, Int = Intermittent, Per = Perennial</p> <p>From Federal Register / Vol. 80, No. 124 / Monday, June 29, 2015 / Rules</p> <p>Ephemeral streams (rain-dependent streams) have flowing water only in response to precipitation events in a typical year, and are always above the water table.</p> <p>Intermittent streams (seasonal streams) are those that have both precipitation and groundwater providing part of the stream's flow, and flow continuously only during certain times of the year (e.g., during certain seasons such as the rainy season).</p> <p><u>c/</u> Water Type: RPW = Relatively Permanent Waters, NRPW = Non-Relatively Permanent Waters, TNW = Traditional Navigable Waters</p> <p><u>d/</u> All waterbodies will be open cut, dry ditch with the exception of the Elk River (MP 87.3), Gauley River (MP 118.9), and Greenbrier River (MP 171.6) which will be open cut, wet ditch. OCDD = Open-Cut Dry Ditch, OCWD = Open-Cut Wet Ditch, TF = Temporary Fill</p> <p><u>e/</u> Fishery Type: (Sources: WVDNR and VDGIF) Fishery type is assigned to named listed streams and perennial tributaries and should be reviewed by the states on a case by case basis.</p> <p>M = Mussel Stream</p> <p>B2 = Trout Waters (WV only)</p> <p>CW = Coldwater Stream</p> <p>WW = Warmwater Stream</p> <p>TE = Threatened and Endangered Species Stream</p> <p>WT = Wild Trout Stream (VA only)</p> <p>ST = Stocked Trout Stream (VA only)</p> <p><u>f/</u> VDGIF in-stream construction restriction by species:</p> <p>Atlantic pigtoe mussel and James spinymussel: May 15-July 31</p> <p>Green floater mussel and Yellow lampmussel: April 15 - June 15 and August 15 - September 30</p> <p>Orangefin madtom March 15 - May 31</p> <p>Roanoke logperch March 15 - June 30</p> <p><u>g/</u> TOYR - Time of Year Restriction = Any span of time within time-of-year restrictions set forth by U.S. Army Corps of Engineer's 401 Water Quality Certification for streams crossed in WV and by VDGIF time-of-year restrictions for streams containing rare, threatened, or endangered species in VA.</p> <p>TOYR will be reviewed by the states on a case by case basis</p>																	

Wetlands Crossed by Variation 250 of the MVP Project																
Wetland ID <u>a/</u>	Milepost	State	County	Cowardin Class <u>b/</u>	HGM <u>c/</u>	USACE Water Type <u>d/</u>	Total Size in Survey Corridor (Acres) <u>e/</u>	Length of Pipeline Crossing (ft)	Temporary Impacts (Acres) <u>f/</u>	Permanent Impacts (Acres) <u>g/</u>	Permanent Access Road Impacts (Acres) <u>h/</u>	Project Component	Summary Table Category	Component Name / Type	Original Component Name	Crossing Method <u>i/</u>
W-IJ46-PEM	222.7	Virginia	Montgomery	PEM	RIVERINE	RPWWD	0.0555	12.9022	0.0294	---	---	Pipeline ROW	Pipeline Facility			Open Cut
<p>Notes:</p> <p><u>a/</u> Desktop delineations were performed for areas not surveyed using aerial imagery and LiDAR data. These features are denoted by "TT" and the State abbreviation preceding the Wetland ID number.</p> <p><u>b/</u> Cowardin wetland classification:</p> <ul style="list-style-type: none"> <li>- PEM = Palustrine Emergent</li> <li>- PSS = Palustrine Scrub-Shrub</li> <li>- PFO = Palustrine Forested</li> </ul> <p><u>c/</u> HGM = Hydrogeomorphic Wetland Classification System</p> <p><u>d/</u> USACE Water Type:</p> <ul style="list-style-type: none"> <li>- RPWWD = Wetlands directly abutting Relatively Permanent Waters (RPWs) that flow directly or indirectly into Traditional Navigable Waterways (TNWs)</li> <li>- RPWWN = Wetlands adjacent but not directly abutting RPWs that flow directly or indirectly into TNWs</li> <li>- NRPWW = Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs</li> <li>- ISOLATE = Isolated (interstate or intrastate) waters, including isolated wetlands</li> </ul> <p><u>e/</u> Total size of wetlands delineated within 300-ft wide survey corridor; wetlands may extend outside of survey corridor and be larger than shown here</p> <p><u>f/</u> Temporary impacts include impacts to PEM wetlands located in temporary workspaces and within the temporary and permanent pipeline ROW.</p> <p><u>g/</u> Permanent Impacts include impacts to PEM wetlands located within the permanent limit of disturbance for aboveground facilities and access roads. Permanent impacts include impacts to PSS and PFO wetlands located within the temporary and permanent pipeline ROW.</p> <p><u>h/</u> Permanent impacts to wetlands in the permanent disturbance footprint for permanent access roads</p> <p><u>i/</u> Span means the resource would be spanned with timber mats, portable bridge, or similar structure to allow access by construction equipment without directly impacting the resource.</p>																