

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

**Implementation Plan
Dated October 2017**

Attachment IP-29

Table 29-1: Wetlands and Waterbody Survey Results for all Cathodic Protection Groundbeds

Name	County	State	Acreage	Nearest Milepost	Wetlands Survey Complete	Wetland and Stream Resources Identified	NHD Stream Name ¹	Latitude ²	Longitude ²	Stream Flow Regime / Wetland Cowardin Code ³	Stream & Wetland Water Type ⁴	Stream Designation ⁵	Impact Type	Temporary Impact ⁶	Permanent Conversion Impacts (Acres) ⁶
MVP-CPGB-01A	Wetzel	West Virginia	0.22	2.3	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-01B	Wetzel	West Virginia	0.53	6.5	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-02	Harrison	West Virginia	0.71	15.4	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-03	Harrison	West Virginia	0.84	23	Yes	W-B2a	None	39.316854	-80.525324	PEM	RPWWD	None	Temporary	0.1953 acres	None
MVP-CPGB-04	Harrison	West Virginia	0.79	34.8	Yes	W-A23	None	39.201143	-80.553116	PEM	RPWWD	None	Temporary	0.0799 acres	None
						None	None					None			
MVP-CPGB-05	Lewis	West Virginia	0.78	45.8	Yes	W-B46	None	39.079891	-80.581600	PEM	RPWWD	None	Temporary	0.0013 acres	None
						W-ST14	None	39.079957	-80.583138	PEM	RPWWD	None	Temporary	0.0394 acres	None
						W-ST15	None	39.079871	-80.582488	PEM	RPWWD	None	Temporary	0.0711 acres	None
MVP-CPGB-06	Lewis	West Virginia	0.77	55.1	Yes	-	None	None	None	-	-	None	-	None	None
MVP-CPGB-07	Lewis	West Virginia	0.63	62.2	Yes	W-ST16	None	38.892544	-80.556689	PEM	RPWWD	None	Temporary	0.0711 acres	None
MVP-CPGB-08	Braxton	West Virginia	0.17	73.7	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-09	Webster	West Virginia	0.01	84	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-10	Webster	West Virginia	0.01	93.1	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-11	Webster	West Virginia	0.66	98.6	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-12	Webster	West Virginia	0.71	107	Yes	S-B30	UNT to Meadow Fork	38.399733	-80.597536	Ephemeral	NRPW	Tier 2	Temporary	26.54 linear feet	None
						S-EF40	UNT to Meadow Fork	38.400883	-80.597787	Intermittent	RPW	Tier 2	Temporary	52.11 linear feet	None
						W-B28	None	38.400123	-80.597553	PEM	RPWWD	None	Temporary	0.2052 acres	None
						W-EF29	None	38.401251	-80.597846	PEM	RPWWD	None	Temporary	0.1733 acres	None
MVP-CPGB-13	Nicholas	West Virginia	0.06	122.4	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-14	Nicholas	West Virginia	0.83	128.2	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-15	Greenbrier	West Virginia	0.01	138.3	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-16	Greenbrier	West Virginia	0.63	149.5	Yes	S-EF39	UNT to Boggs Creek	37.922828	-80.740670	Ephemeral	NRPW	Tier 2	Temporary	250.88 linear feet	None
						W-EF28	None	37.923039	-80.740444	PFO	NRPWW	None	Permanent Conversion	None	.0095 acres
MVP-CPGB-17	Summers	West Virginia	0.66	159.6	Yes	None	None	None	None	None	None	None	None	None	None
						None	None	None	None	None	None	None	None	None	None
MVP-CPGB-18	Summers	West Virginia	0.01	171.9	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-19	Monroe	West Virginia	0.66	182.3	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-20	Monroe	West Virginia	0.01	192	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-21	Giles	Virginia	0.55	200.6	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-22	Giles	Virginia	0.06	211.2	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-23	Montgomery	Virginia	0.53	227.3	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-24	Montgomery	Virginia	0.52	235.4	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-25	Roanoke	Virginia	0.50	245.9	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-26	Franklin	Virginia	0.75	255.2	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-27	Franklin	Virginia	0.62	263.9	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-28	Franklin	Virginia	0.66	274.7	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-29	Pittsylvania	Virginia	0.70	285.8	Yes	None	None	None	None	None	None	None	None	None	None
MVP-CPGB-30	Pittsylvania	Virginia	0.06	296	Yes	None	None	None	None	None	None	None	None	None	None

Notes:

- 1 - For identified streams without a NHD name, the identified stream was given the name, "Unidentified Tributary (UNT)", of the first named receiving waterbody. Wetlands are not given NHD stream names
- 2 - in decimal degrees
- 3 - PEM - Palustrine Emergent Wetland
- PFO - Palustrine Forested Wetland
- 4 - Streams
- RPW = Relatively Permanent Waters
- NRPW = Non-Relatively Permanent Waters
- Wetlands
- RPWWD = Wetlands directly abutting Relatively Permanent Waters (RPWs) that flow directly or indirectly into Traditional Navigable Waterways (TNWs)
- RPWWN = Wetlands adjacent but not directly abutting RPWs that flow directly or indirectly into TNWs
- NRPWW = Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- 5 - Tier 2 - the default assignment for a waterbody not listed as impaired on the states 303(d) list
- 6 - Stream impacts reported in feet. Wetland impacts reported in acres.

Table 29-2: Remaining Cultural Survey Results for all Cathodic Protection Groundbeds

Name	County	State	Acreage	Nearest Milepost	Cultural Surveys Complete	Resource Identified	SHPO ID	Report Citation	Phase I Recommendation	SHPO Concurrence Phase I	Phase II Recommendation	SHPO Concurrence Phase II
MVP-CPGB-01A	Wetzel	West Virginia	0.22	2.3	Yes	Historic-Period Field Scatter / Trash Dump	46WZ132	Mountain Valley Pipeline Project, Cultural Resources Survey Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (July 2015)	Not Eligible	10/6/2015	N/A	N/A
MVP-CPGB-01B	Wetzel	West Virginia	0.53	6.5	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (November 2016)	N/A	N/A	N/A	N/A
MVP-CPGB-02	Harrison	West Virginia	0.71	15.4	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (November 2016)	N/A	N/A	N/A	N/A
MVP-CPGB-03	Harrison	West Virginia	0.84	23	Yes	Isolated Find	46HS137	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (November 2016)	Not Eligible	12/7/2016	N/A	N/A
MVP-CPGB-04	Harrison	West Virginia	0.79	34.8	Yes	Historic-Period Field Scatter 20th-Century	46DO109	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (November 2016)	Not Eligible	12/7/2016	N/A	N/A
					Yes	Historic-Isolated Find	46DO111	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (November 2016)	Not Eligible	7/7/2016	N/A	N/A
MVP-CPGB-05	Lewis	West Virginia	0.78	45.8	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (July 2015)	N/A	N/A	N/A	N/A
MVP-CPGB-06	Lewis	West Virginia	0.77	55.1	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (November 2016)	N/A	N/A	N/A	N/A
MVP-CPGB-07	Lewis	West Virginia	0.63	62.2	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume I, Wetzel Harrison Doddridge and Lewis Counties, West Virginia (November 2016)	N/A	N/A	N/A	N/A
MVP-CPGB-08	Braxton	West Virginia	0.17	73.7	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey Volume II, Braxton and Webster Counties, West Virginia (October 2015)	N/A	N/A	N/A	N/A
MVP-CPGB-09	Webster	West Virginia	0.01	84	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey Volume II, Braxton and Webster Counties, West Virginia (October 2015)	N/A	N/A	N/A	N/A
MVP-CPGB-10	Webster	West Virginia	0.01	93.1	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey Volume II, Braxton and Webster Counties, West Virginia (October 2015)	N/A	N/A	N/A	N/A
MVP-CPGB-11	Webster	West Virginia	0.66	98.6	Yes	Modern Trash, Nails and Glass, Non-site finds	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 2 to Volume II, Braxton and Webster Counties, West Virginia (July 2017)	N/A	N/A	N/A	N/A
MVP-CPGB-12	Webster	West Virginia	0.71	107	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume II, Braxton and Webster Counties, West Virginia (October 2016)	N/A	N/A	N/A	N/A
MVP-CPGB-13	Nicholas	West Virginia	0.06	122.4	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey Volume III, Nicholas, Greenbrire and Fayette Counties, West Virginia (December 2015)	N/A	N/A	N/A	N/A
MVP-CPGB-14	Nicholas	West Virginia	0.83	128.2	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey Volume III, Nicholas, Greenbrire and Fayette Counties, West Virginia (December 2015)	N/A	N/A	N/A	N/A
MVP-CPGB-15	Greenbrier	West Virginia	0.01	138.3	Yes	Historic Period Farmstead 20th -Century	46GB494	Mountain Valley Pipeline Project, Cultural Resources Survey Volume III, Nicholas, Greenbrire and Fayette Counties, West Virginia (December 2015)	Not Eligible	2/12/2016	N/A	N/A
MVP-CPGB-16	Greenbrier	West Virginia	0.63	149.5	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume III, Nicholas, Greenbrire and Fayette Counties, West Virginia (January 2017)	N/A	N/A	N/A	N/A
MVP-CPGB-17	Summers	West Virginia	0.66	159.6	Yes	Prehistoric Lithic Scatter	WV-SU-008	Pending	Pending	Pending	Pending	Pending
					Yes	Prehistoric Isolated Find	WV-SU-010-ISO	Pending	Not Eligible	Pending	N/A	N/A
MVP-CPGB-18	Summers	West Virginia	0.01	171.9	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey Volume IV, Summers and Monroe Counties, West Virginia (January 2016)	N/A	N/A	N/A	N/A
MVP-CPGB-19	Monroe	West Virginia	0.66	182.3	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey, Addendum 1 to Volume IV, Summers and Monroe Counties, West Virginia (December 2016)	N/A	N/A	N/A	N/A
MVP-CPGB-20	Monroe	West Virginia	0.01	192	Yes	No	N/A	Mountain Valley Pipeline Project, Cultural Resources Survey Volume IV, Summers and Monroe Counties, West Virginia (January 2016)	N/A	N/A	N/A	N/A
MVP-CPGB-21	Giles	Virginia	0.55	200.6	Yes	No	N/A	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Giles County, Virginia (November 2015)	N/A	12/31/2015	N/A	N/A
MVP-CPGB-22	Giles	Virginia	0.06	211.2	Yes	Yes	44GS0231	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Giles County, Virginia (November 2015)	Potentially eligible	12/31/2015	Not eligible	Pending
MVP-CPGB-23	Montgomery	Virginia	0.53	227.3	Yes	Yes	44MY0576	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Addendum I Roanoke and Montgomery Counties, Virginia (January 2017)	Not eligible	Pending	N/A	N/A
MVP-CPGB-24	Montgomery	Virginia	0.52	235.4	Yes	No	N/A	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Addendum I Roanoke and Montgomery Counties, Virginia (January 2017)	N/A	Pending	N/A	N/A
MVP-CPGB-25	Roanoke	Virginia	0.50	245.9	Yes	No	N/A	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Addendum I Roanoke and Montgomery Counties, Virginia (January 2017)	N/A	Pending	N/A	N/A
MVP-CPGB-26	Franklin	Virginia	0.75	255.2	Yes	Yes	44FR0397	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Addendum I Franklin County, Virginia (December 2016)	Potentially eligible	04/26/2017	Not eligible	Pending
MVP-CPGB-27	Franklin	Virginia	0.62	263.9	Yes	No	N/A	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Addendum I Franklin County, Virginia (December 2016)	N/A	04/26/2017	N/A	N/A
MVP-CPGB-28	Franklin	Virginia	0.66	274.7	Yes	No	N/A	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Addendum I Franklin County, Virginia (December 2016)	N/A	04/26/2017	N/A	N/A
MVP-CPGB-29	Pittsylvania	Virginia	0.70	285.8	Yes	No	N/A	Mountain Valley Pipeline Project Phase IB Combined County Archaeological Survey Report, Addendum II, Giles, Montgomery, Roanoke, Franklin, and Pittsylvania Counties, Virginia (July 2017)	N/A	Pending	N/A	N/A
MVP-CPGB-30	Pittsylvania	Virginia	0.06	296	Yes	No	N/A	Mountain Valley Pipeline Project Phase IB Archaeological Survey Report Addendum 2 and Phase II Archaeological Evaluation Site 44PY0442 Pittsylvania County, Virginia (December 2016)	N/A	Pending	N/A	N/A

N/A=Not applicable because no resources found

Table 29-3: Rare, Threatened, and Endangered Survey Results for all Cathodic Protection Groundbeds

Name	County	State	Acreage	Nearest Milepost	Rare and Threatened Endangered Species Surveys Complete	Type of Rare and Threatened Endangered Species Surveys Conduction	Type of Rare and Threatened Endangered Species Identified
MVP-CPGB-01A	Wetzel	West Virginia	0.22	2.3	Yes	DHA, Portals, Bat	None
MVP-CPGB-01B	Wetzel	West Virginia	0.53	6.5	Yes	DHA, Portals, Bat	None
MVP-CPGB-02	Harrison	West Virginia	0.71	15.4	Yes	DHA, Portals, Bat	None
MVP-CPGB-03	Harrison	West Virginia	0.84	23	Yes	DHA, Portals, Bat	None
MVP-CPGB-04	Harrison	West Virginia	0.79	34.8	Yes	DHA, Portals, Bat	None
MVP-CPGB-05	Lewis	West Virginia	0.78	45.8	Yes	DHA, Portals, Bat	None
MVP-CPGB-06	Lewis	West Virginia	0.77	55.1	Yes	DHA, Portals, Bat, nearby Mussel Surveys	None
MVP-CPGB-07	Lewis	West Virginia	0.63	62.2	Yes	DHA, Portals, Bat	None
MVP-CPGB-08	Braxton	West Virginia	0.17	73.7	Yes	DHA, Portals, Bat	None
MVP-CPGB-09	Webster	West Virginia	0.01	84	Yes	DHA, Portals, Bat	None
MVP-CPGB-10	Webster	West Virginia	0.01	93.1	Yes	DHA, Portals, Bat, Running Buffalo Clover Survey to the South	None
MVP-CPGB-11	Webster	West Virginia	0.66	98.6	Yes	DHA, Portals, Bat, Running Buffalo Clover Survey to the South	None
MVP-CPGB-12	Webster	West Virginia	0.71	107	Yes	DHA, Portals, Bat	None
MVP-CPGB-13	Nicholas	West Virginia	0.06	122.4	Yes	DHA, Portals, Bat	None
MVP-CPGB-14	Nicholas	West Virginia	0.83	128.2	Yes	DHA, Portals, Bat	None
MVP-CPGB-15	Greenbrier	West Virginia	0.01	138.3	Yes	DHA, Portals, Bat, Small Whorled Pogonia Survey to the South	None
MVP-CPGB-16	Greenbrier	West Virginia	0.63	149.5	Yes	DHA, Portals, Bat, Eagle, Shale Barren Rock Cress; Small Whorled Pogonia Survey along CL	None
MVP-CPGB-17	Summers	West Virginia	0.66	159.6	Yes	DHA, Portals, Bat, Eagle	None
MVP-CPGB-18	Summers	West Virginia	0.01	171.9	Yes	DHA, Portals, Bat, Eagle	None
MVP-CPGB-19	Monroe	West Virginia	0.66	182.3	Yes	DHA, Portals, Bat, Eagle	None
MVP-CPGB-20	Monroe	West Virginia	0.01	192	Yes	Portals, Bat, Eagle	None
MVP-CPGB-21	Giles	Virginia	0.55	200.6	Yes	Portals, Bat, Eagle, Pinnate-lobed coneflower	None
MVP-CPGB-22	Giles	Virginia	0.06	211.2	Yes	Portals, Bat, Eagle, nearby Mussel Surveys	None ⁷
MVP-CPGB-23	Montgomery	Virginia	0.53	227.3	Yes	Portals, Bat, Eagle, nearby Mussel Surveys, LOSH Survey	None
MVP-CPGB-24	Montgomery	Virginia	0.52	235.4	Yes	Portals, Bat, Eagle, nearby Mussel Surveys, LOSH Survey	None
MVP-CPGB-25	Roanoke	Virginia	0.50	245.9	Yes	Portals, Bat, Eagle, Bog Turtles	None
MVP-CPGB-26	Franklin	Virginia	0.75	255.2	Yes	Portals, Bat, Eagle	None
MVP-CPGB-27	Franklin	Virginia	0.62	263.9	Yes	Portals, Bat, Eagle	None
MVP-CPGB-28	Franklin	Virginia	0.66	274.7	Yes	Portals, Bat, Eagle	None
MVP-CPGB-29	Pittsylvania	Virginia	0.70	285.8	Yes	Portals, Bat, Eagle, Sweet Shrub Survey along CL	None
MVP-CPGB-30	Pittsylvania	Virginia	0.06	296	Yes	Portals, Bat, Eagle	None

Notes:

- 1 - For identified streams without a NHD name, the identified stream was given the name, "Unidentified Tributary (UNT)", of the first named receiving waterbody.
- 2 - in decimal degrees
- 3 - PEM - Palustrine Emergent Wetland
- PFO - Palustrine Forested Wetland
- 4 - Streams
- RPW = Relatively Permanent Waters
- NRPW = Non-Relatively Permanent Waters
- Wetlands
- RPWWD = Wetlands directly abutting Relatively Permanent Waters (RPWs) that flow directly or indirectly into Traditional Navigable Waterways (TNWs)
- RPWWN = Wetlands adjacent but not directly abutting RPWs that flow directly or indirectly into TNWs
- NRPWW = Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- 5 - Tier 2 - the default assignment for a waterbody not listed as impaired on the states 303(d) list
- 6 - Stream impacts reported in feet. Wetland impacts reported in acres.
- 7 -Within 400-feet of Tawney's Cave Entrances