Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread D	**AFE**	124300132	**Spread**	H-600 Pipeline Spread D
Contractor	Precision			**Report #**	110
Environmental Auditor	Gary Cruz			**Date/Time**	10/27/2023 10:37 AM

Wetland ID	W-J7	**Crossing Start Date**	10/23/2023	**Crossing Completion Date**	11/1/2023
Milepost	122.47	**Pre-Con Assessment Date**	10/23/2023	**Post-Con Assessment Date**	11/1/2023
Station	6466+43	**Cowardin Classification**	PFO	**Wetland Impact Area(acres)**	0.0693
State	WV				
County	Nicholas				

	Resource Post-Crossing Conditions	
1	Were equipment mats or other suitable methods utilized under heavy equipment to minimize soil compaction and disturbance in wetlands?	Yes
2	Was the existing vegetation removed prior to initiating land disturbance within the resource?	Yes
3	Was the top 1-foot (12-inches) of wetland soil segregated and stockpiled separate from trench spoils?	Yes
4	Was excess material not needed for backfill removed and disposed of in an upland area?	Yes
5	Was the top 12-inches of backfill made with clean native wetland topsoil?	Yes
6	Were standard decompaction practices (disking, plowing, cultivating, tilling, or incorporation of organic matter into the topsoil horizon) implemented prior to applying seed?	Yes
7	Was wetland topsoil replaced and temporarily seeded?	Yes
8	Was permanent seed applied to unsaturated wetlands?	Yes
9	Was equipment/timber matting removed from the wetland area properly by vertically lifting, and not pulling through the impact area?	Yes
10	Were impervious trench breakers/plugs properly installed within 25-feet of the resource to prevent subsurface erosion to or from the resource area?	Yes
11	Was the pre-construction survey data utilized during restoration in attempt to maintain the original surface hydrology, and were contours re-established to pre-construction conditions to maintain overland flow patterns?	Yes
12	Have civil surveys been scheduled to verify as-built conditions meet pre-construction conditions in accordance with the project Mitigation Framework and federal/state permit requirements?	Yes
13	Was the time of disturbance minimized by conducting resource work continuously to completion?	Yes
14	Does the post-construction square footage of wetland area appear to be restored to meet or exceed the pre-construction area square footage?	Yes
15	Are bareroot saplings required and/or scheduled to be planted for the dormant season (10/1 – 4/30) in PFO classified wetlands?	N/A
16	Did any unauthorized discharges to unpermitted resources occur during the crossing? If so, explain the corrective actions implemented in the Comments section and include additional photos.	No

	Biological Conditions	Pre-Con	Post-Con
17	**Wetland Saturation:** Are surface waters, the water table, and/or overall soil saturation present? (Select Yes or No)	Yes	Yes
18	**Resource Alterations:** Are the wetland soil conditions visibly disturbed? **Examples:** Livestock presence, haul roads, farm traffic, drain tiles, recent mowing/clear cutting, recent excavating/disking of soils, etc. **Rating:** 1-Negligible (undisturbed/natural resource), 2-Minor (20-40% of resource disturbed by alterations), 3-Moderate (40-80% of resource disturbed), 4-Poor (>80% of resource disturbed)	1	4
19	**Is vegetation present within the permitted impact area prior to disturbance? (Pre-Con)Are areas properly seeded and stabilized after restoration? (Post-Con)** **Rating:** 1-Optimal (60-100% heavy vegetative cover), 2-Sub-optimal (30-60% mixed vegetative coverage), 3-Marginal (<30% vegetative coverage), 4-Poor (Mowed/maintained area or farmland, impervious area, sparsely vegetative coverage, etc.)	1	4

AFE	124300132	Date/Time	10/27/2023 10:37 AM	Report #	110

Additional Notes

10/23/2023 - The top 12” of soil between station number 6466+59 and 6466+99 of the wetland was excavated, segregated, and stockpiled onto geotextile fabric. The blasting crew drilled holes and started blasting the ditch line.

10/24/2023 - No construction activities were conducted within the stream feature. The contractor excavated the ditch line in the upland area on the going away side (GAS) of W-J7.

10/25/2023 - The day was spent excavating the ditch line through stream S-J22 and wetland W-J7.

10/26/2023 – Excavation through the features was completed by the end of the day.

10/27/2023 – The section of pipe for S-J22 and W-J7 was lowered-in and tied-in on the GAS loose end. To make the pipe sit in the trench properly, more of the pipe was excavated in the upland area on the GAS of the features.

10/28/2023 - A cut out and reengineering of the pipe on the coming in side (CIS) of W-J7 was required to ensure proper coverage when restoring the wetland. Fitting and welding operations commenced and continued throughout the rest of the day.

10/29/2023 – Welding operations were completed on the CIS of the crossing and x-ray and coating operations began.

10/30/2023 - No construction activities were conducted due to a rain out.

10/31/2023 – After x-ray and coating operations were completed, the stream and wetland sections of the trench were backfilled to within 12” from top of grade using subsoil. The trench in the upland areas on the CIS and GAS were padded and backfilled. The impervious trench breakers were installed just outside of wetland W-J7on the CIS and GAS at station number 6466+43 and 6467+21 respectively.

11/1/2023 - The wetland topsoil was replaced, and all elevations were verified by survey to pre-construction specifications. Erosion control devices were installed on the CIS and GAS boundaries of the wetland and the proper seed mix was applied to the disturbed areas of the wetland.

Conditions 18 & 19 were given a rating of 4 due to the lack of vegetation in the disturbed permitted impact area following completion of the crossing and restoration efforts. The W-J7 PFO topsoil has been properly stabilized and the disturbed area has been seeded with the appropriate permanent seed mix in accordance with Appendix B: Restoration Work Plan of the Mountain Valley Pipeline Comprehensive Stream and Wetland Monitoring, Restoration and Mitigation Framework.

In accordance with the Mountain Valley Pipeline Comprehensive Stream and Wetland Monitoring, Restoration and Mitigation Framework, this independent report was completed to document the on-site monitoring of instream invertebrate and fisheries resources during all construction activity related to waterbody and wetland crossings, and document instream conditions and any impacts to the resources.

Name	Signature	Company	Date
Gary Cruz		SWCA	11/1/2023

AFE	124300132	Date/Time	10/27/2023 10:37 AM	Report #	110

Required Photos

GPS Location	See photo above
Description	View of permitted resource impact area during pre-construction assessment.

GPS Location	See photo above
Description	At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment.

GPS Location	See photo above
Description	View of permitted resource impact area during post-construction assessment.

GPS Location	See photo above
Description	At edge of LOD, view of unimpacted resource area conditions during post-construction assessment.

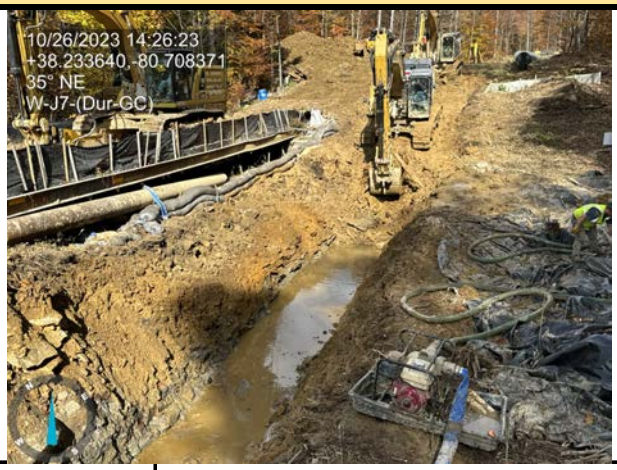
GPS Location	See photo above
Description	Contractor began removing top 12" of topsoil.

GPS Location	See photo above
Description	Blasting crew setting up markers for drill holes.

AFE	124300132	Date/Time	10/27/2023 10:37 AM	Report #	110

Optional Photos

GPS Location	See photo above
Description	Crew drilling hole to blast the wetland.



GPS Location	See photo above
Description	Operator excavating the features ditch line.

GPS Location	See photo above
Description	The contractor lowering-in section of pipe for wetland.

GPS Location	See photo above
Description	Subsoil has been backfilled below the 12" mark of elevation.

GPS Location	See photo above
Description	The impervious trench breakers have been installed.

GPS Location	See photo above
Description	The top 12” of topsoil being verified by survey to meet pre-construction specifications.