Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread A	**AFE**	124300129	**Spread**	H-600 Pipeline Spread A
Contractor	Precision			**Report #**	76
Environmental Auditor	Rachel Ellis			**Date/Time**	9/14/2023 10:30 AM

Wetland ID	W-A40	**Crossing Start Date**	9/14/2023	**Crossing Completion Date**	10/3/2023
Milepost	18.90	**Pre-Con Assessment Date**	9/7/2023	**Post-Con Assessment Date**	10/3/2023
Station	997+71	**Cowardin Classification**	PEM	**Wetland Impact Area(acres)**	0.3111
State	WV				
County	Harrison				

	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?	See Below
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

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Additional Notes

9/07/2023 Pre-construction assessment
Portions of the wetland within the project workspace, in addition to the temporary equipment crossing, had been previously matted to avoid ground disturbance and additional impacts outside of the permitted impact area.
Pre-construction photos below are focused on the undisturbed and un-matted area of the wetland. There was not any standing water observed in the wetland, but the soil was saturated. For questions 18 and 19, these were given a score of 1 in the non-matted portion of the wetland due to a high level of undisturbed vegetation.

9/14/2023
Construction through the wetland crossing began. The top 12 inches of the wetland substrate was segregated appropriately.

9/15/2023
The contractor continued work on excavating the trench. Groundwater from the excavated trench was pumped out and appropriately dewatered as needed.

9/16/2023
The excavation continued and a section of the pipe was placed into the wetland.

9/18/2023
The pipe was welded.

9/19/2023
Work on the pipe, such as coating, continued.

9/20/2023
Partial backfilling of the area began. The top 12 inches of substrate were not replaced at this point.

9/21/2023
Construction and backfilling of area continued.

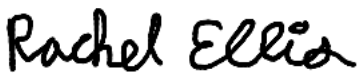
9/22 & 9/23
No further changes to the wetland area occurred as the adjacent stream crossing took priority.

9/24 - 10/02
No further changes to the wetland area. Construction on the pipeline section south of the wetland and through the nearby stream continued.

10/03/2023 Post-construction assessment
The top 12 inches of clean native wetland soil was restored to W-A40. The area was 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.

Conditions 18 and 19 were given a rating of 4 during the post-construction assessment due to the lack of vegetation in the disturbed area following completion of the crossing. For condition 13, due to resource work on the adjacent stream crossing, the need to access the additional temporary workspace east of the crossing, and to avoid further impacts to the segregated wetland topsoil, restoration of the wetland topsoil was delayed.

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
Rachel Ellis		ERM	10/7/2023

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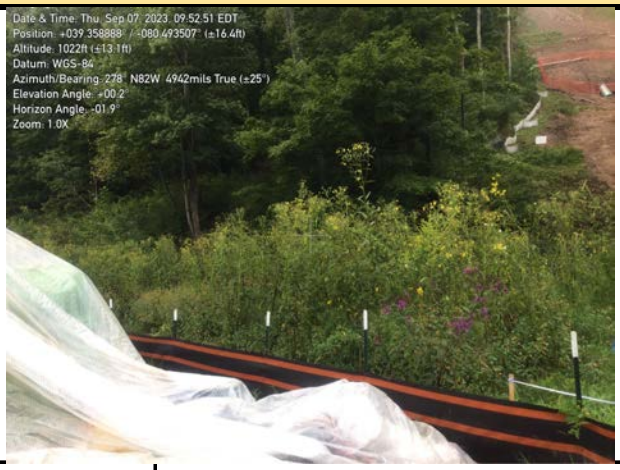
Required Photos

GPS Location	Refer to photograph.
Description	View of permitted resource impact area during pre-construction assessment.



GPS Location	Refer to photograph.
Description	At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment.

GPS Location	Refer to photograph.
Description	View of permitted resource impact area during post-construction assessment.

GPS Location	Refer to photograph.
Description	At edge of LOD, view of unimpacted resource area conditions during post-construction assessment.

GPS Location	Refer to photograph.
Description	View of one section of the pipe placed through the area.

GPS Location	Refer to photograph.
Description	View of further excavation and next section of pipe being placed into the area.

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Optional Photos

GPS Location	Refer to photograph.
Description	View of the pipe as work continued.

GPS Location	Refer to photograph.
Description	View of the area after partial backfilling and re-matting.

GPS Location	Refer to photograph.
Description	View of area as backfilling continued.

GPS Location	Refer to photograph.
Description	View of area partially backfilled.

GPS Location	Refer to photograph.
Description	View of area as construction continued.

GPS Location	Refer to photograph.
Description	View of area as construction continued.