Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread E	**AFE**	124300134	**Spread**	H-600 Pipeline Spread E
Contractor	Price Gregory			**Report #**	56
Environmental Auditor	Charles Haden			**Date/Time**	9/19/2023 8:03 AM

Wetland ID	W-M23	**Crossing Start Date**	10/7/2023	**Crossing Completion Date**	10/19/2023
Milepost	137.01	**Pre-Con Assessment Date**	9/19/2023	**Post-Con Assessment Date**	10/19/2023
Station	7234+05	**Cowardin Classification**	PEM	**Wetland Impact Area(acres)**	0.0616
State	WV				
County	Greenbrier				

	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)	2	3
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.)	2	2

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Additional Notes

Pre-Construction Notes
Pre-Construction Meeting - 9/18/2023
Timber mat bridge in place prior to assessment.
17. Standing water, soil saturation, and high water table observed in soil test pit.

10/07/2023 - Top 12 inches of topsoil removed from aquatic resource and stored in designated upland containment area (Photo 1 and Photo 2). Excavation began in aquatic resource.

10/09/2023 - Excavation of trench in resource was completed (Photo 3). Subsoil from trench transported to upland area. Trenching ongoing outside of resource. Temporary earthen barrier constructed in trench, but outside of aquatic resource, to help control groundwater seepage.

10/10/2023 - Water pumped from trench to designated dewatering structure. Pipe installed and welding occurred outside of aquatic resource. Trenching ongoing outside of aquatic resource. Sandbags for pipe bedding placed in aquatic resource area. X-ray completed.

10/11/2023 - Water pumped from trench to designated dewatering structure. Trenching ongoing outside of aquatic resource. Pipe bedding added outside of aquatic resource area.

10/12/2023 - Rain occurred overnight. Water pumped from trench to designated dewatering structure. Trench box installed. Temporary earthen barrier removed. Pipe lowered into trench in resource area (Photo 4) and prepared for welding. Welding, coating, x-ray, and hammering ongoing outside of aquatic resource.

10/13/2023 - Water pumped from trench within aquatic resource throughout the day. Welding and X-ray on-going. Sandblasting occurred within trench box with containment structure in place. Coating work initiated.

10/14/2023 - Jeeping/coating completed. Sandbag trench breakers constructed outside aquatic resource (Photo 5). Back-filling occurred in trench through aquatic resource (Photo 6). Water pumped from trench within resource throughout the day.

10/16/2023 - Trench box removed from aquatic resource. Subsoil restored in W-M23 (Photo 7). Survey marked resource for topsoil restoration.

10/17/2023 - Wetland topsoil restoration began in aquatic resource. Survey inspected boundary and elevation throughout resource.

10/18/2023 - Wetland topsoil was too wet to rake, final restoration postponed until following day.

10/19/2023 - Wetland topsoil elevations fine-tuned. Wetland seed applied to resource (Photo 8).

Post Construction Notes
17. Soil saturation observed in test pit. Standing water observed in permitted impact area and non-impacted resource area.
18. Crossing and riparian areas have been recently restored. These areas will be monitored until 80% vegetative coverage has been achieved and areas that do not have 80% vegetative cover within 30 days will be reseeded.
Timber mat remains in place for travel lane.

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
Charles Haden		Potesta & Associates	10/19/2023

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Required Photos

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

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

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

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

GPS Location	See Photo
Description	Photo 1: Wetland topsoil removal.

GPS Location	See Photo
Description	Photo 2: Topsoil segregated and stored in an upland area.

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Optional Photos

GPS Location	See Photo
Description	Photo 3: Trenching in aquatic resource.

GPS Location	See Photo
Description	Photo 4: Pipe lowered into aquatic resource.

GPS Location	See Photo
Description	Photo 5: Trench breakers being installed on both sides of aquatic resource.

GPS Location	See Photo
Description	Photo 6: Backfilling of aquatic resouce.

GPS Location	See Photo
Description	Photo 7. Subsoil replaced and resource marked by survey.

GPS Location	See Photo
Description	Photo 8. Topsoil restored and seed applied to resource.