



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread E	AFE	124300134	Spread	H-600 Pipeline Spread E
Contractor	Price Gregory	Report #	65		
Environmental Auditor	Tim Ferguson			Date/Time	9/22/2023 8:45 AM
Wetland ID	W-QR2	Crossing Start Date	9/22/2023	Crossing Completion Date	10/9/2023
Milepost	144.17	Pre-Con Assessment Date	9/22/2023	Post-Con Assessment Date	10/9/2023
Station	7612+18	Cowardin Classification	PEM	Wetland Impact Area(acs)	0.2435
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?	N/A
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		2
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		2

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Additional Notes

Pre-Construction Notes
 Pre-Construction Meeting 9/19/2023
 Resource crosses ROW in two locations.
 17. Pre-Construction - Test pit recharged and contained saturated soils (Photo 1).
 18. Pre-Construction - Timber mat present (travel lane)

Day 1 (9/22/2023)
 Began wetland topsoil removed (Photo 2) at first resource crossing and segregated in an upland area. Trenching began in resource (Photo 3). Pipe brought onsite to prepare for lowering into resource.

Day 2 (9/23/2023)
 Additional topsoil was removed from edge of wetland over sloughing concern. Trenching continued through resource. Padding (pillows) placed in trench and base of trench breakers started. Pipe lowered into trench.

Day 3 (9/25/2023)
 Placing pillows in trench and welding ongoing in resource area. Began removing topsoil from second resource crossing.

Day 4 and Day 5 (9/26/2023 and 9/27/2023)
 Completed topsoil removal at second crossing. Depth of cover issue. Addressed by raising pipe, removing sandbags, and additional excavation. Depth achieved and verified by survey afternoon of 9/27/2023. Trench breaker and plug placed in upland portion of trench to help control water in trench (1 of 4 trench breakers at site).

Day 6 (9/28/2023)
 Backfilling in resource area. Elevations checked by survey and topsoil was returned to resource (first crossing only) (Photo 4).

Day 7 (9/29/2023)
 Hammering in second section of resource. Topsoiled area seeded. Work continued on mats which included further hammering, trench excavation, and a trench box was placed in resource area.

Day 8 - Day 12 (9/30/2023-10/05/2023)
 Activity during this timeframe included welding, coating, sandblasting, placement of rock shielding, and welding all outside of the resource. Pipe bedding was placed in the trench in the aquatic resource (Photo 5). On 10/5/2023 a section of pipe was lowered into resource (Photo 6). Delay was due to an extra section of pipe that was needed to complete the connection at this location.


Day 13 (10/6/2023)
 Welding, x-ray, sandblasting, and coating completed on section of pipe that was lowered into trench. Additional trench breakers being installed and backfilling began (Photo 7).

Day 14 (10/7/2023)
 Backfilling completed in resource area. Survey staked out resource and site brought to appropriate grade. Wetland topsoil was placed in aquatic resource area (Photo 8). Survey revisited wetland to determine final grade and to stake resource boundaries. Wetland seeded. EI felt additional seed necessary.

Day 15 (10/9/2023)
 Wetland seeded. Site complete.

Post Construction Notes
 17. Post Construction test pit contained saturated soils.
 18. Does not include timber mats that remain in place for travel lane.
 19. Crossing and riparian areas have been recently restored. These areas will be monitored until 80% vegetative cover has been achieved and areas that do not have 80% vegetative cover within 30 days will be reseeded.

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
Tim Ferguson		Potesta & Associates, Inc.	10/9/2023

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



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



GPS Location	See Photo	GPS Location	See Photo
Description	Photo 1: Soil test pit with recharge and saturated soils.	Description	Photo 2: Wetland topsoil removed at first resource crossing.

Optional Photos		
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GPS Location See Photo	GPS Location See Photo
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Description Photo 3: Excavating trench through first aquatic resource crossing.	Description Photo 4: Establishing restoration contours at first aquatic resource crossing using segregated topsoil.
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GPS Location See Photo	GPS Location See Photo
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Description Photo 5: Installing bedding in aquatic resource area.	Description Photo 6: Lowering pipe into second resource crossing.
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GPS Location See Photo	GPS Location See Photo
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Description Photo 7: Backfilling of second aquatic resource crossing.	Description Photo 8: Wetland topsoil restored in second crossing. Trench breakers being constructed.
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