



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread F	AFE	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	145		
Environmental Auditor	Mathew Huber			Date/Time	12/3/2023 8:30 PM
Wetland ID	W-C13	Crossing Start Date	12/11/2023	Crossing Completion Date	12/22/2023
Milepost	194.73	Pre-Con Assessment Date	12/4/2023	Post-Con Assessment Date	12/22/2023
Station	10281+97	Cowardin Classification	PEM	Wetland Impact Area(acres)	0.2172
State	WV				
County	Monroe				

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		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

Pre-Construction Notes
 Pre-Construction Meeting - 11/29/2023
 17. Soil saturation present; groundwater recharge observed in soil test pit (Photo 1).
 18. Livestock have access to resource.

12/11/2023 - First half of aquatic resource topsoil excavated (top 12 inches) and segregated, placed in upland work area. Excavated other aquatic resources and outside of aquatic resources.

12/12/2023 - Second half of aquatic resource excavated (top 12 inches) (Photo 2) and segregated. Drilled for blasting. Prepped for blasting with rubber mats. Blasted.

12/13/2023 - Drilled for blasting in buffer. Rubber mats placed. Blasted. With timber mats in place, excavated through aquatic resource. Excavating outside of aquatic resource continued. Trench box placed in trench. Welding ongoing.

12/14/2023 - Excavated in aquatic resource and adjacent area. X-rayed. Pumped water from trench. Continued to excavate through aquatic resource and adjacent area (Photo 3). Excavation completed.

12/15/2023 - Pumped water from trench. Pipe placed in trench. Welding ongoing. Bedding/padding (dirt) added to trench.

12/16/2023-12/18/2023 - Pumped water from trench. Welding, x-rayed, cutting, jeeeping outside of aquatic resource. Additional sections of pipe added to trench in aquatic resource area (Photo 4) (12/16/2023).

12/19/2023 - Pumped water from trench. Welding and X-ray ongoing. Bedding and sandbags (as bedding) added to trench (Photo 5). Began constructing trench breakers on the southern end of resource area (also northern trench break for S-C41). Trench backfilled. River weights added.


12/20/2023 - Continued to backfill (Photo 6). Trench breaker completed.

12/21/2023 - The crew replaced the top 12 inches of topsoil to the wetland area (Photo 7) and graded it to the correct contour. The upland topsoil was also replaced in adjacent upland areas and graded to the correct contour.

12/22/2023 - Aquatic resource seeded (Photo 8) and appropriate erosion control measures put in place.

Post Construction Notes
 17. Saturated soils.
 18. Rating due to lack of vegetation in disturbed area.
 19. Crossing has recently been restored. These areas will be monitored until 80% vegetative cover is achieved. Areas that do not have 80% vegetative cover within 30 days will be reseeded.
 Timber mat bridge 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
Mathew Huber		ERM	12/22/2023

AFE	124300135	Date/Time	12/3/2023 8:30 PM	Report #	145
Required Photos					
 <p><small>Date & Time: Mon, Dec 04, 2023 at 10:41:44 EST Position: +037427024, -080694471 (+15.7h) Altitude: 1924ft (+10.9h) Datum: WGS-84 Azimuth/Bearing: 185° S05W 3289mils True (+27°) Elevation Angle: -20.0 Horizon Angle: -00.5 Zoom: 1.0X W-C13 Permitted impact area MVP Spread F</small></p>		 <p><small>Date & Time: Mon, Dec 04, 2023 at 10:44:41 EST Position: +037426813, -080694421 (+15.5h) Altitude: 1929ft (+11.1h) Datum: WGS-84 Azimuth/Bearing: 100° S77E 1831mils True (+27°) Elevation Angle: -19.2 Horizon Angle: -00.9 Zoom: 1.0X W-C13 Unimpacted area MVP Spread F</small></p>		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
 <p><small>Date & Time: Fri, Dec 08, 2023 at 10:41:55 EST Position: +037426821, -080694488 (+15.7h) Altitude: 1919ft (+10.4h) Datum: WGS-84 Azimuth/Bearing: 125° S35E 2578mils True (+20°) Elevation Angle: +00.7 Horizon Angle: -00.7 Zoom: 1.0X W-C13 permitted impact area post-con Mountain Valley Pipeline</small></p>		 <p><small>Date & Time: Fri, Dec 08, 2023 at 10:41:55 EST Position: +037426821, -080694488 (+15.7h) Altitude: 1914ft (+10.4h) Datum: WGS-84 Azimuth/Bearing: 126° S54E 2240mils True (+20°) Elevation Angle: +00.4 Horizon Angle: -00.4 Zoom: 1.0X W-C13 unimpacted impact area Mountain Valley Pipeline</small></p>		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: Groundwater recharge in test pit.	Description Photo 2: Excavating top 12 inches of topsoil in aquatic resource.
 <p><small>Date & Time: Mon, Dec 04, 2023 at 10:41:55 EST Position: +037426579, -080694455 (+15.7h) Altitude: 1923ft (+10.9h) Datum: WGS-84 Azimuth/Bearing: 205° N54W 5440mils True (+17°) Elevation Angle: +01.3 Horizon Angle: -00.9 Zoom: 1.0X W-C13 topsoil excavation Mountain Valley</small></p>		 <p><small>Date & Time: Tue, Dec 12, 2023 at 09:03:29 EST Position: +037426579, -080694455 (+15.7h) Altitude: 1923ft (+10.9h) Datum: WGS-84 Azimuth/Bearing: 205° N54W 5440mils True (+17°) Elevation Angle: +01.3 Horizon Angle: -00.9 Zoom: 1.0X W-C13 topsoil excavation Mountain Valley</small></p>		GPS Location See Photo	GPS Location See Photo

Optional Photos		
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GPS Location See Photo	GPS Location See Photo
Description Photo 3: Excavating through aquatic resource.	Description Photo 4: Pipe lowered into trench into aquatic resource area.



GPS Location See Photo	GPS Location See Photo
Description Photo 5: Padding and sandbags in trench.	Description Photo 6: Backfilling of trench.



GPS Location See Photo	GPS Location See Photo
Description Photo 7: Restoring topsoil.	Description Photo 8: Seeding aquatic resource.