



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread F	A/E	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	142		
Environmental Auditor	Charles Haden			Date/Time	11/27/2023 12:50 PM
Wetland ID	W-MM20-PFO	Crossing Start Date	12/2/2023	Crossing Completion Date	1/10/2024
Milepost	171.49	Pre-Con Assessment Date	11/27/2023	Post-Con Assessment Date	1/10/2024
Station	9054+65	Cowardin Classification	PFO	Wetland Impact Area(acres)	0.2990
State	WV				
County	Summers				

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?	Yes
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)	No		No
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)	3		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.)	3		3

AFE 124300135	Date/Time 11/27/2023 12:50 PM	Report # 142
----------------------	--------------------------------------	---------------------

Additional Notes


Pre-Construction Notes
 Pre-Construction Meeting - 11/27/2023
 17. No surface water, soil saturation, or recharged table observed at test pit location.
 18. Vegetation has been trimmed/mowed; State Hwy 12/3 adjacent to aquatic resource.
 S-CV17 runs through the northern portion of aquatic resource.

12/2/2023 - Timber mats put in place for excavation. Top 12 inches of topsoil excavated (Photo 1) and segregated in work area and labeled appropriately.
 12/4/2023 - Excavated trench within aquatic resource. Timber mats in place to minimize compaction.
 12/5/2023 - Excavation of trench continued (Photo 2). Measurements for bore, track, and pipe completed. Bore track installed in aquatic resource (Photo 3). Road bore trench opened on opposite side of the road. Bore pipe installed in trench.
 12/6/2023 - Bore lined up for drilling through aquatic resource. Pea gravel added to trench for stability.
 12/7-9/2023 - Road bore construction began through aquatic resource. Water pumped from trench. Bore successfully made it to other side of road. Mainline pipe installation begins through aquatic resource.
 12/11-13/2023 - Water pumped from trench. Boring ongoing and completed (12/13/2023). Welding and x-ray ongoing in aquatic resource. Survey onsite.
 12/14/2023 - No work in aquatic resource.
 12/15/2023 - Adjustments made to trench line and road crossing area. Topsoil moved to different location within work area.
 12/16/2023 - Pipe placement needed resurveyed and engineering approval. Water in trench. No work in aquatic resource.
 12/18/2023 - Adjustments to pipe placement made. Water in trench. Welding ongoing outside of aquatic resource.
 12/19-22/2023 - Snowy and icy conditions. Water in trench. Welding of pipe in upland continued. X-ray and surveyed.
 12/23/2023 - Stabilized stockpile. No work in aquatic resource
 12/27-29/2023 - Wet and rainy. Trench flooded. Environmental crew adjusted dam and restored flow through flume pipe. Water pumped from trench.
 12/30/2023 - Pipe in trench. Preparations for welding. Welding in trench in aquatic resource.
 12/31/2023 - Pumped water from trench. Pipe wrapped with rock shielding. Welding in trench aquatic resource. Sandbags added to trench for padding. Padding dirt added to trench.
 1/2/2024 - Prepared for sand blasting. Removed trench box and began to backfill outside aquatic resource area. Cut pipe, moved pipe to trench (Photo 4), welded, x-ray, and coated in aquatic resource area.
 1/3/2024 - Filling trench outside aquatic resource area. Pipe adjusted for final weld. Sandbag added to trench in aquatic resource area for padding and trench breaker constructed (Photo 5). Welding and X-ray ongoing in aquatic resource.
 1/4/2024 - X-ray completed on final weld. Continued to add sandbags to trench. Coated. Bore pit north of resource backfilled.
 1/5/2024 - Calcimite added to subsoil. Padding dirt added to trench and continued to construct trench breakers.
 1/6/2024 - Moderate rain onsite. Calcimite added to subsoil and padding dirt/subsoil added to trench (Photo 6). A flash flood occurred as rain intensified. Trench completely filled with water. Began pumping water from trench and continued overnight.
 1/7/2024 - Water pumped from trench to tanker truck. Site stable but wet. General clean-up completed statewide.
 1/8/2024 - Water remaining in trench pumped to tanker truck. Repaired/built trench breaker. Backfilled in aquatic resource area. Restored adjacent aquatic resource including restoring a portion of this resource (topsoil replacement) (Photo 7). Seeded portion of wetland inside adjacent aquatic resource (S-CV17) buffer.
 1/9/2024 - Rain out.
 1/10/2024 - Survey onsite, shot aquatic resource boundary locations. Restored topsoil to aquatic resource area outside of S-CV17 buffer. Seeded restored aquatic resource area (Photo 8). Rolled out jute. Additional seed added to aquatic resource after jute placed. Added super silt fencing.

Post Construction Notes
 17. Post Construction soils are not saturated, and no recharge was noted in test pit.
 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
Charles Haden		POTESTA	1/10/2024

Required Photos					
------------------------	--	--	--	--	--

 <p style="font-size: small; color: gray;">Date & Time: Mon Nov 27 2023 at 12:42:02 EST Position: +037.681591° / -080.730391° (-16.77in) Altitude: 1517ft (-42.7in) Datum: WGS-84 Azimuth Bearing: 032° N32E 0569mils True (-14in) Elevation Angle: -08.2° Horizon Angle: -91.5° Zoom: 1.0X View of permitted resource impact area during pre-construction assessment. MVP - S-C-172-W-MM20-PFO</p>	 <p style="font-size: small; color: gray;">Date & Time: Mon Nov 27 2023 at 12:49:03 EST Position: +037.681774° / -080.730229° (-16.84in) Altitude: 1520ft (-42.4in) Datum: WGS-84 Azimuth Bearing: 032° N32E 0569mils True (-14in) Elevation Angle: -08.2° Horizon Angle: -91.5° Zoom: 1.0X At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment. MVP - S-C-172-W-MM20-PFO</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.
 <p style="font-size: small; color: gray;">Date & Time: Wed Jan 10 2024 at 14:09:26 EST Position: +037.681591° / -080.730391° (-16.77in) Altitude: 1517ft (-40.4in) Datum: WGS-84 Azimuth Bearing: 004° N04E 0071mils True (-12.1in) Elevation Angle: -05.7° Horizon Angle: -00.3° Zoom: 1.0X W-MM20-PFO View of permitted resource impact area during post-construction assessment. MVP</p>	 <p style="font-size: small; color: gray;">Date & Time: Wed Jan 10 2024 at 14:09:26 EST Position: +037.681591° / -080.730391° (-16.77in) Altitude: 1517ft (-40.4in) Datum: WGS-84 Azimuth Bearing: 004° N04E 0071mils True (-12.1in) Elevation Angle: -05.7° Horizon Angle: -00.3° Zoom: 1.0X W-MM20-PFO View of unimpacted resource area conditions during post-construction assessment. MVP</p>		
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.
 <p style="font-size: small; color: gray;">PREFS +037.681768° / -080.730351° ↑ 1480ft 12/02/23 12:39:54 077° N77E 1369mils TRUE 0.60 E 0.5X</p>	 <p style="font-size: small; color: gray;">PREFS +037.681774° / -080.730415° ↑ 1515ft 12/05/23 08:10:47 089° N89E 1582mils TRUE 0.60 E 1.20X</p>		
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 1: Excavation of top 12 inches of topsoil in aquatic resource.	Description	Photo 2: Excavation of trench in aquatic resource.

Optional Photos					
------------------------	--	--	--	--	--



GPS Location	See Photo	GPS Location	See Photo
Description	Photo 3: Bore tracks in aquatic resource.	Description	Photo 4: Lowering pipe into trench into aquatic resource area.



GPS Location	See Photo	GPS Location	See Photo
Description	Photo 5: Trench breaker constructed with French drain.	Description	Photo 6: Adding padding dirt and backfilling trench.



GPS Location	See Photo	GPS Location	See Photo
Description	Photo 7: Adding topsoil to aquatic resource inside S-CV17 buffer.	Description	Photo 8: Overview of wetland. Seeding ongoing.