Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread F	**AFE**	124300135	**Spread**	H-600 Pipeline Spread F
Contractor	Price Gregory			**Report #**	114
Environmental Auditor	Charles Haden			**Date/Time**	10/30/2023 3:53 PM

Wetland ID	W-A13	**Crossing Start Date**	11/1/2023	**Crossing Completion Date**	11/29/2023
Milepost	182.90	**Pre-Con Assessment Date**	10/30/2023	**Post-Con Assessment Date**	11/29/2023
Station	9657+32	**Cowardin Classification**	PEM	**Wetland Impact Area(acres)**	0.2991
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	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.)	3	3

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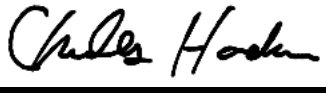
Additional Notes

Pre-Construction Notes
Pre-Construction Meeting - 10/30/2023
17. Soil saturation present; no standing water or groundwater recharge observed in soil test pit.
19. Vegetation cleared prior to construction.
ROW crosses wetland in two locations.
Timber mat travel lane in place.

11/1/2023 - Top 12 inches of topsoil excavated (Photo 1) in first portion of the aquatic resource crossing. Topsoil was segregated and stored in work area. Plastic covering added on top of topsoil storage pile as well as signage.
11/2/2023 - Bored for blasting. Constructed and inserted trench box in aquatic resource area. Placed blasting mats. Blasted through aquatic resource area.
11/3/2023 - Bored for additional blasting (Photo 2). Blasted through aquatic resource area.
11/4/2023 - Bored for additional blasting. Blasted through access road and portion of aquatic resource area. Excavating started across road and steel plates and mats placed across road.
11/6/2023 - Pumping water from aquatic resource area. Excavated additional topsoil which was segregated and stored in work area. Excavated trench in aquatic resource area. Placed trench box in aquatic resource. Placed sandbag "pillows" in trench (Photo 3). Removed temporary bridge. Placed pipe in trench. Welding ongoing. Replaced temporary bridge.
11/7/2023 - Excavated trench in upland. X-ray. Sandblasting. Coating. Finished excavating trench at first portion of aquatic resource crossing.
11/8/2023 - Jeeped pipe both within and outside of aquatic resource area. Removed temporary bridge to access road. Prepped trench box for pipe to go in trench. Placed sandbag "pillows" in trench for padding. Survey onsite. Added rock shield. Moved and placed pipe in trench (Photo 4). Welding.
11/9/2023 - Began backfilling up to the access road crossing. Constructed trench breakers. X-ray. Backfill up to access road completed. Survey shot edge of aquatic resource to make sure trench breaker was not in wetland, about 20 feet outside wetland. Sandblasting and coating. Backfilling of aquatic resource and access road.
11/10/2023 - Excavated top 12 inches of topsoil in another section of wetland. Began excavating trench. Removed trench box. Bored for blasting. Blasting.
11/11/2023 - Survey staked-out ditch line before additional excavation in aquatic resource. Excavation of trench in aquatic resource (Photo 5).
11/13/2023 - Began placing sandbag "pillows" in trench. Moved pipe to trench by side-boom. Lowered pipe down into trench. Welding and x-ray.
11/14/2023 - Sanding, coating, and backfilling with padding material in aquatic resource area ongoing.
11/15/2023 - Backfilled with padding material. Backfilled with subsoil.
11/16/2023 - Boring for blasting in another portion of the aquatic resource. Subsoil added to trench in other portion of aquatic resource. Adding jute to portion of wetland. Survey shooting pipe location. Blasting. Excavating trench through newly opened portion of aquatic resource. Putting topsoil back on completed section of aquatic resource. Installing P1 fencing to protect restored aquatic resource (Photo 6).
11/17/2023 - Sandbags added to trench through aquatic resource. Brought pipe to trench by side-boom. Lowered pipe into trench. Heated up pipe for weld. Welding.
11/18/2023 - X-ray on site for previous days' weld. Sandblasted, coated, and backfilled. Survey onsite shooting pipe location.
11/20/2023 - Seed added to areas of aquatic resource that have been topsoil restored. Backfilled other areas of trench. Removed trench box from bell hole. Continued to backfill.
11/21/2023 - Rain. No work in resources. Amounts in some areas exceeded 1.0 inch.
11/22/2023 - Completed backfilling. Contoured and added topsoil to remaining open wetland resources (Photo 7).
11/24/2023-11/28/2023 - No work in aquatic resource.
11/29/2023 - Seed added to remaining aquatic resource areas (Photo 8).

Post Construction Notes
Aquatic resource excavated and restored in phases reducing overall time each section was open.
17. Saturated soils.
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 & Associates	11/29/2023

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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: Removal of first 12 inches of topsoil.

GPS Location	See Photo
Description	Photo 2: Drilling in aquatic resource for blasting.

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Optional Photos

GPS Location	See Photo
Description	Photo 3: Sandbag "pillows" in trench for padding.

GPS Location	See Photo
Description	Photo 4: Placing porting of pipe in trench in aquatic resource area.

GPS Location	See Photo
Description	Photo 5: Excavating trench in aquatic resource.

GPS Location	See Photo
Description	Photo 6: Installing P1 fencing along a restored section of aquatic resource.

GPS Location	See Photo
Description	Photo 7: Spreading topsoil across a portion of the aquatic resource area.

GPS Location	See Photo
Description	Photo 8: Aquatic resource seeded.