



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 #	148		
Environmental Auditor	Beth Burdette			Date/Time	12/4/2023 4:25 PM
Wetland ID	W-G6	Crossing Start Date	12/29/2023	Crossing Completion Date	1/14/2024
Milepost	190.23	Pre-Con Assessment Date	12/6/2023	Post-Con Assessment Date	1/14/2024
Station	10044+40	Cowardin Classification	PEM	Wetland Impact Area(acres)	0.0684
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)	1		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		1

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Additional Notes

Pre-Construction Notes
 Pre-Construction Meeting - 12/6/2023
 Recent rain/snow
 17. Surface water only in areas.
 19. Area is heavily vegetated. Stream (S-G42) delineated previously within wetland.

12/29/2023 - Excavated top 12 inches of topsoil from aquatic resource (Photo 1) and transport to north hill stockpile for segregated storage. Prepped for blast: drill charge holes, etc. Blasted. Removed blast mats in the vicinity of aquatic resource to install flume pipe.
 12/30/2023 - Removed remaining blast mats. Placed timber mats in aquatic resource area (Photo 2). Excavated trench upslope of resources and into topsoiled aquatic resource. Subsoil transported to coming-in sidehill. Welded pipe in upland area.
 12/31/2023 - Completed excavation of trench through aquatic resource (Photo 3) and relayed subsoil. Pumped water from trench to dewatering structure. Welded pipe in upland area. Timber mat bridge installed across trench for landowner to access property opposite ROW.
 1/2/2024 - Pumped water from trench. Walked pipe section to upland trench. Welded pipe in upland area. No activity in aquatic resource.
 1/3/2024 - Pumped water from trench. Walked pipe section to upland trench. Walked pipe section for aquatic resource area from southern work area to closer location north of the crossing. Welded pipe in upland area. No activity in aquatic resource.
 1/4/2024 - Welded, jeeped, coated, and wrapped pipe with rock shield outside aquatic resource. No activity in aquatic resource.
 1/5/2024 - Pumped water from trench. Walked and lowered pipe section into trench in aquatic resource area (Photo 4). Aligned pipe and prepped pipe followed by welding of pipe in upland area.
 1/6/2024 - Rain Out. Trench contained a moderate amount of water that was clear prior to heavy rain. ECDs in place. No activity in aquatic resource.
 1/7/2024 - Site was extremely muddy. Trench contained significant amount of water that ran into the upland area and bore pit. Dewatering was ongoing. Water in structure was discharging clear. Pipe brought down and cut. Timber mats placed in trench for welders. New pipe section aligned and welded. Weld completed after dark. X-ray stayed onsite.
 1/8/2024 - Site muddy due to weekend precipitation. Pumped water from trench. Dewatering structure discharge clear. Prepped pipe for weld. Welded pipe. X-rayed. No activity in aquatic resource.
 1/9/2024 - Rain out. Actively pumped water from trench. No activity in aquatic resource.
 1/10/2024 - Pumped water from trench. Sandblasted, jeeped, coated, and wrapped pipe with rock shield outside aquatic resource. Site cleanup. No activity in aquatic resource.
 1/11/2024 - Pumped water from trench to dewatering structure. Sandblasted, jeeped, coated, and wrapped pipe with rock shield outside aquatic resource. Site cleanup. Backfilled trench. No activity in aquatic resource.
 1/12/2024 - Pumped water from trench to dewatering structure. Site cleanup. Installed resource trench breakers (Photo 5). Backfilled trench (Photo 6). Rain in afternoon.
 1/13/2024 - Pumped water out of trench. Backfilled with padding dirt. Survey onsite, shot elevations. Contoured and restored topsoil in aquatic resource. Seeded aquatic resource (Photo 7). Survey shot final elevations.
 1/14/2024 - Verifying limits of aquatic restoration and completion of restoration.

Post Construction Notes
 17. Surface water, high water table, and soil saturation observed (Photo 8).
 19. Aquatic resource has 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.
 Timber mats will remain 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
Beth Burdette		Potesta & Associates, Inc.	1/14/2024

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: Excavation of top 12 inches of topsoil from aquatic resource.	Description Photo 2: Installing timber mats to minimize compaction during excavation.

Optional Photos		
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 <p><small>Date & Time: Sun, Dec 31, 2023 at 12:33:08 EST Position: +037.476612 N / -080.644420 W (=1312.20ft) Altitude: 197.6ft (=60.1ft) Datum: WGS-84 Azimuth/Bearing: 166° S14E 2951mils True (=12°) Elevation Angle: -10.4 Horizon Angle: -00.9 Zoom: 1.0X S-G42 continuing to trench MVP</small></p>	 <p><small>Date & Time: Fri, Jan 05, 2024 at 10:47:34 EST Position: 037.472690 N / -080.675544 W (=24.1ft) Altitude: 197.7ft (=60.1ft) Datum: WGS-84 Azimuth/Bearing: 149° S31E 2649mils True (=12°) Elevation Angle: -11.0 Horizon Angle: +05.1 Zoom: 1.0X S-G42/W-G6 Lower Pipe to Trench Mountain Valley Pipeline</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 3: Excavating last portion of trench through aquatic resource.	Description Photo 4: Lowering pipe into trench.
 <p><small>Date & Time: Fri, Jan 12, 2024 at 12:27:35 EST Position: 037.471430 N / -080.677086 W (=188.23.0ft) Altitude: 202.2ft (=62.3.0ft) Datum: WGS-84 Azimuth/Bearing: 168° S12E 2987mils True (=32°) Elevation Angle: -06.0 Horizon Angle: -00.0 Zoom: 1.0X S-G42/W-G6 South Trench Breaker Mountain Valley Pipeline</small></p>	 <p><small>Date & Time: Fri, Jan 12, 2024 at 09:46:55 EST Position: 037.471624 N / -080.677071 W (=20.0ft) Altitude: 207.1ft (=63.0ft) Datum: WGS-84 Azimuth/Bearing: 336° N26W 5950mils True (=18°) Elevation Angle: +13.7 Horizon Angle: +00.0 Zoom: 1.0X S-G42/W-G6 Backfill Trench Mountain Valley Pipeline</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 5: Constructing trench breaker adjacent to aquatic resource.	Description Photo 6: Backfilling trench.
 <p><small>Date & Time: Sat, Jan 13, 2024 at 13:33:04 EST Position: 037.472657 N / -080.675433 W (=108.4ft) Altitude: 206.0ft (=62.8ft) Datum: WGS-84 Azimuth/Bearing: 092° S88E 1871mils True (=12°) Elevation Angle: +18.0 Horizon Angle: +04.7 Zoom: 1.0X S-G42/W-G6 Adding seed to stream buffers MVP</small></p>	 <p><small>Date & Time: Sun, Jan 14, 2024 at 09:48:39 EST Position: 037.472659 N / -080.675366 W (=16.6ft) Altitude: 188.0ft (=57.3ft) Datum: WGS-84 Azimuth/Bearing: 191° S11W 3395mils True (=12°) Elevation Angle: +23.0 Horizon Angle: +03.0 Zoom: 1.0X Residual surface water in aquatic resource post MVP S-G42/W-G6</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 7: Seeding aquatic resource.	Description Photo 8: Surface water evident in aquatic resource post restoration.