



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread F	AFE	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	104		
Environmental Auditor	Tim Ferguson	Date/Time	10/26/2023 12:34 PM		
Wetland ID	W-UV4	Crossing Start Date	10/31/2023	Crossing Completion Date	11/9/2023
Milepost	155.73	Pre-Con Assessment Date	10/26/2023	Post-Con Assessment Date	11/9/2023
Station	8222+54	Cowardin Classification	PSS	Wetland Impact Area(acres)	0.0885
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?	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		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)	1		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.)	1		1

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Additional Notes

Pre-Construction Notes
 Pre-Construction Meeting - 10/26/2023
 17. Saturated soils in wetland test pit (Photo 1).
 19. Outside growing season. Plant die-back and coverage by leaf debris.

10/31/2023 - Minor precipitation in previous 24 hours (<0.1 inches). Top 12 inches of wetland topsoil removed (Photo 2). Topsoil segregated and stored in upland area (Photo 3). Light rain. Excavation of trench and hammering in resource area. Drilling for blasting through aquatic resource and placement of blasting mats. Blasting. Welding ongoing outside of aquatic resource area.

11/1/2023 - Light Snow. Pumping from trench in aquatic resource area. Preparation for second series of blast (Photo 4). Second blast. Welding and coating ongoing outside of aquatic resource area.

11/2/2023 - Pumping from trench in aquatic resource area. Drilling and hammering of rock in aquatic resource area. Trench excavation and spoil relayed to upland area.

11/3/2023 - Pumping from trench in aquatic resource area. Drilling and hammering of rock in aquatic resource area. Trench excavation and spoil relayed to upland area. Coating of pipe ongoing outside of aquatic resource area.

11/4/2023 - Pumping from trench in aquatic resource area. Drilling and hammering of rock in resource area. Trench excavation and spoil relayed to upland area. Sandbag bedding placed in pipe (Photo 5). Prepping to move pipe. Finish applying rock shield. Transport and lower pipe into trench in aquatic resource area.

11/6/2023 - Pumping from trench in aquatic resource area. Pipe adjustments. Welding and x-ray outside of aquatic resource area.


11/7/2023 - Pumping from trench in aquatic resource area. Cutting pipe. Welding, sandblasting, coating, and x-ray outside of resource area.

11/8/2023 - Trench breakers installed. Backfilling around trench breakers (Photo 7). Shaker bucket used for padding. Sand blasting and coating outside of aquatic resource area. Survey onsite to evaluate aquatic resource elevations.

11/9/2023 - Restored wetland subsoil and topsoil (Photo 8). Survey onsite and survey completed. Wetland seeded. Wetland restoration completed.

Post Construction Notes
 17. No recharge or saturated soils in wetland test pit.
 19. Crossing and riparian areas have been recently restored. These areas will be monitored until 80% vegetative coverage has been achieved and areas that do not have 80% vegetative cover within 30 days will be reseeded.
 Timber mats 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
Tim Ferguson		Potesta & Associates, Inc.	11/9/2023

Required Photos		
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 <p><small>Date & Time: Thu, Oct 26, 2023 at 12:48:59 EDT Position: 037.854462° N / 080.755121° W (-53.0ft) Altitude: 2515ft (-134.1ft) Datum: WGS-84 Azimuth Bearing: 226.544W 4018mils True (-35°) Elevation Angle: -09° Horizon Angle: -09° Zoom: 1.0X W-DVA: at Edge of LOD, view of permitted resource area conditions during preconstruction assessment Mountain Valley Pipeline</small></p>		 <p><small>Date & Time: Thu, Oct 26, 2023 at 12:34 PM EDT Position: 037.854477° N / 080.755121° W (-53.0ft) Altitude: 2515ft (-134.1ft) Datum: WGS-84 Azimuth Bearing: 226.544W 4018mils True (-35°) Elevation Angle: -09° Horizon Angle: -09° Zoom: 1.0X W-DVA: at Edge of LOD, view of unimpacted resource area conditions during preconstruction assessment Mountain Valley Pipeline</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.
 <p><small>Date & Time: Thu, Nov 09, 2023 at 10:36:45 EST Position: 037.854486° N / 080.755195° W (-104.8ft) Altitude: 2476ft (-187.9ft) Datum: WGS-84 Azimuth Bearing: 110.542W 3942mils True (-18°) Elevation Angle: -09° Horizon Angle: -09° Zoom: 1.0X W-DVA: at Edge of LOD, view of permitted resource impact area conditions during post-construction assessment Mountain Valley Pipeline</small></p>		 <p><small>Date & Time: Thu, Nov 09, 2023 at 10:35:18 EST Position: 037.854303° N / 080.755070° W (-75.7ft) Altitude: 2515ft (-134.1ft) Datum: WGS-84 Azimuth Bearing: 222.542W 3942mils True (-18°) Elevation Angle: -09° Horizon Angle: -09° Zoom: 1.0X W-DVA: at Edge of LOD, view of unimpacted resource area conditions during post-construction assessment Mountain Valley Pipeline</small></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><small>Date & Time: Thu, Oct 26, 2023 at 12:25:41 EDT Position: 037.854399° N / 080.755051° W (-27.7ft) Altitude: 2515ft (-134.1ft) Datum: WGS-84 Azimuth Bearing: 226.544W 4018mils True (-35°) Elevation Angle: -09° Horizon Angle: -09° Zoom: 1.0X W-DVA: view of test pit samples Mountain Valley Pipeline</small></p>		 <p><small>Date & Time: Thu, Oct 26, 2023 at 12:28:01 EDT Position: 037.854371° N / 080.754935° W (-27.8ft) Altitude: 2524ft (-128.9ft) Datum: WGS-84 Azimuth Bearing: 226.544W 4018mils True (-35°) Elevation Angle: -09° Horizon Angle: -09° Zoom: 1.0X W-DVA: Topsoil Removal Mountain Valley Pipeline</small></p>	
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 1: Saturated soils in test pit.	Description	Photo 2: Removal of top 12 inches of wetland topsoil.

Optional Photos		
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GPS Location See Photo	GPS Location See Photo
Description Photo 3: Wetland topsoil segregated in upland area.	Description Photo 4: Prepping (drilling) for second blast.



GPS Location See Photo	GPS Location See Photo
Description Photo 5: Sandbags in trench for pipe bedding.	Description Photo 6: Lowering pipe into trench.



GPS Location See Photo	GPS Location See Photo
Description Photo 7: Trench breakers and backfilling with padding dirt.	Description Photo 8: Restoring wetland topsoil.