



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread E	A/E	124300134	Spread	H-600 Pipeline Spread E
Contractor	Price Gregory	Report #	42		
Environmental Auditor	Kristin Duty	Date/Time	9/6/2023 8:17 AM		
Wetland ID	W-L13	Crossing Start Date	10/2/2023	Crossing Completion Date	10/13/2023
Milepost	147.00	Pre-Con Assessment Date	9/6/2023	Post-Con Assessment Date	10/13/2023
Station	7761+60	Cowardin Classification	PEM	Wetland Impact Area(acres)	0.0316
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?	N/A
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?	N/A
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)	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)	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		4

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Additional Notes

Pre-Construction Notes
 Pre-Constuction Meeting - 9/5/2023
 Timber mat in place prior to assessment.
 17. No recharge and soils are not saturated

10/2/2023 - First 12" of wetland topsoil removed (Photo 1) and segregated in upland area (Photo 2). Trenching ongoing.

10/3/2023 - 10/4/2023 - Excavation of trench continued (Photo 3). Pipe in upland area exposed.

10/5/2023 - Section of pipe lowered into trench through aquatic resource (Photo 4).

10/6/2023 - 10/9/2023 - Placement of padding in trench. Welding, x-ray, coating, and sandblasting ongoing outside of aquatic resource.


10/10/2023 - Placement of additional padding in trench. Began backfilling of aquatic resource area (Photo 5) and construction of trench breakers.

10/11/2023 - 10/12/2023 - Completed construction of trench breakers (Photo 6). Wetland topsoil restored in area identified by survey (Photo 7). P1 fence installed to protect resource from additional work being completed in the vicinity of resource.

10/13/2023 - Topsoil seeded in restored wetland resource (Photo 8).

Post Construction Notes
 1., 9. Equipment was not used in resource, all work from adjacent area. No use of timber mats in aquatic resource necessary.
 17. Water did not recharge in post construction test pit.
 18. 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 mat 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
Kristin Duty		Potesta	10/13/2023

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Required Photos

<p><small>Date & Time: Wed, Sep 06, 2023 at 13:07:21 EDT Position: 037.953848 N / 080.739688 W (±18.8ft) Altitude: 2445ft (±44.3ft) Datum: WGS-84 Azimuth/Bearing: 204° S24W 360m (±11°) Elevation Angle: -19.8 Horizon Angle: -01.9 Zoom: 1.0X W-L13 OVERVIEW PERMITTED IMPACT FACING SOUTH Mountain Valley</small></p>	<p><small>Date & Time: Wed, Sep 06, 2023 at 13:05:05 EDT Position: 037.953848 N / 080.739688 W (±18.8ft) Altitude: 2445ft (±44.3ft) Datum: WGS-84 Azimuth/Bearing: 330° W30E 300m (True ±11°) Elevation Angle: -19.8 Horizon Angle: -02.2 Zoom: 1.0X W-L13 OVERVIEW NON-IMPACT FACING NORTH EAST Mountain Valley</small></p>
<p>GPS Location See Photo</p>	<p>GPS Location See Photo</p>
<p>Description View of permitted resource impact area during pre-construction assessment.</p>	<p>Description At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment.</p>
<p><small>Date & Time: Fri, Oct 13, 2023 at 17:58:24 EDT Position: 037.953887 N / 080.739703 W (±15.7ft) Altitude: 2437ft (±43.1ft) Datum: WGS-84 Azimuth/Bearing: 203° S23W 350m (True ±14°) Elevation Angle: -13.9 Horizon Angle: -09.6 Zoom: 1.0X W-L13 PERMITTED IMPACT VIEWING SOUTH Mountain Valley</small></p>	<p><small>Date & Time: Fri, Oct 13, 2023 at 18:00:24 EDT Position: 037.953872 N / 080.739699 W (±15.7ft) Altitude: 2437ft (±43.1ft) Datum: WGS-84 Azimuth/Bearing: 199° N50W 551 (±16°) Elevation Angle: -12.7 Horizon Angle: -07.2 Zoom: 1.0X W-L13 NON-PERMITTED IMPACT VIEWING WEST Mountain Valley</small></p>
<p>GPS Location See Photo</p>	<p>GPS Location See Photo</p>
<p>Description View of permitted resource impact area during post-construction assessment.</p>	<p>Description At edge of LOD, view of unimpacted resource area conditions during post-construction assessment.</p>
<p><small>Date & Time: Thu, Oct 05, 2023 at 16:57:21 EDT Position: 037.953887 N / 080.739703 W (±15.8ft) Altitude: 2437ft (±43.1ft) Datum: WGS-84 Azimuth/Bearing: 220° S10W 3520m (True ±12°) Elevation Angle: -12.4 Horizon Angle: -02.4 Zoom: 1.0X W-L13 PERMITTED EAST 12" OF TOPSOIL Mountain Valley</small></p>	<p><small>Date & Time: Thu, Oct 05, 2023 at 17:07:18 EDT Position: 037.953822 N / 080.739699 W (±15.1ft) Altitude: 2440ft (±43.2ft) Datum: WGS-84 Azimuth/Bearing: 070° N70E 1244m (True ±12°) Elevation Angle: -14.7 Horizon Angle: -02.4 Zoom: 1.0X W-L13 TOPSOIL CONTAINMENT Mountain Valley</small></p>
<p>GPS Location See Photo</p>	<p>GPS Location See Photo</p>
<p>Description Photo 1: Removal of top 12 inches of topsoil.</p>	<p>Description Photo 2: Topsoil segregation in stockpiles in upland area.</p>

Optional Photos					
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GPS Location	See Photo	GPS Location	See Photo
Description	Photo 3: Trench completed through aquatic resource and upland pipe exposed.	Description	Photo 4: Lowering pipe into trench in aquatic resource area.



GPS Location	See Photo	GPS Location	See Photo
Description	Photo 5: Sifting and backfilling of trench in aquatic resource area.	Description	Photo 6: Construction of trench breakers adjacent to aquatic resource area.



GPS Location	See Photo	GPS Location	See Photo
Description	Photo 7: Survey verifying final grade and location of restored (topsoiled) wetland resource.	Description	Photo 8: Seeding of wetland resource.