



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread E	AFE	124300134	Spread	H-600 Pipeline Spread E
Contractor	Price Gregory	Report #	78		
Environmental Auditor	Dan Miller			Date/Time	10/6/2023 9:11 AM
Wetland ID	W-L11	Crossing Start Date	10/6/2023	Crossing Completion Date	10/14/2023
Milepost	147.53	Pre-Con Assessment Date	10/6/2023	Post-Con Assessment Date	10/14/2023
Station	7789+40	Cowardin Classification	PEM	Wetland Impact Area(acres)	0.0194
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?	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)	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)	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.)	2		3

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Additional Notes

Pre-Construction Notes
 Pre-Constuction Meeting - 10/5/2023
 Timber mat in place prior to assessment.
 17. No recharge and soils are not saturated.

10/7/2023 - Wetland topsoil was removed(Photo 1), segregated and stored separately in an upland area (Photo 2). Excavation of trench started and finished in resource area (Photo 3).

10/9/2023 - Sifting bedding into trench. Pipe lowered into trench (Photo 4). Cutting and welding of pipe in trench outside of aquatic resource area.

10/10/2023 - Additional pipe lowered into trench outside of resource area. Cutting and welding of pipe in trench outside of aquatic resource area.

10/11/2023 - Welding ongoing outside of aquatic resource area.


10/12/2023 - Survey evaluated elevations of pipe through aquatic resource area. No realignment needed. Welding, x-ray, coating, and sandblasting on-going on both ends of pipe in trench (outside of resource area). Began backfilling and construction of first trench breaker completed.

10/13/2023 - Additionally welding and coating of pipe in trench. Backfilling of trench and construction of section trench breaker (Photo 5). Resource area brought to elevation (Photo 6) and survey staked wetland boundaries.


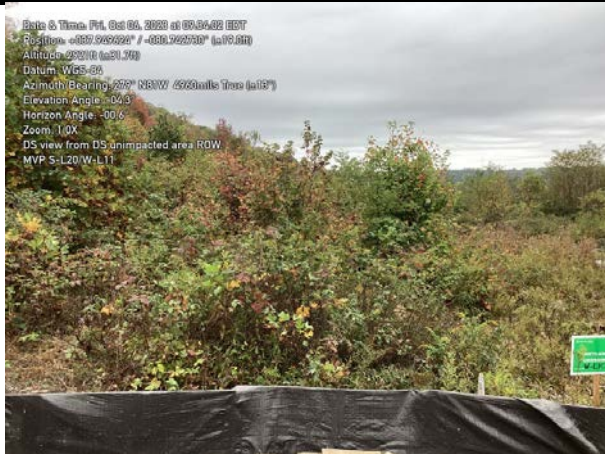




10/14/2023 - Light rain overnight. Control points for wetland corrected. Resource area contoured. Wetland soils restored (Photos 7 and 8). Additional work continued outside of resource area, but wetland restoration complete.

Post Construction Notes
 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
Dan Miller		Potesta	10/14/2023

Required Photos					
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	 <p><small>Date & Time: Fri, Oct 06, 2023 at 07:52:57 EDT Position: 4037.514244, -860.742361, 111.13011 Altitude: 291.61 m (957.1ft) Datum: WGS 84 Azimuth Bearing: 147.51 E 3004mils True (±15°) Elevation Angle: -04.1 Horizon Angle: -00.6 Zoom: 1.0X Resource: Wetland South MVP S-L20/W-L11</small></p>	 <p><small>Date & Time: Fri, Oct 06, 2023 at 08:04:02 EDT Position: 4037.514244, -860.742361, 111.13011 Altitude: 291.61 m (957.1ft) Datum: WGS 84 Azimuth Bearing: 229.56 NW 4526mils True (±15°) Elevation Angle: -04.3 Horizon Angle: -00.6 Zoom: 1.0X DS view from DS unimpacted area ROW MVP S-L20/W-L11</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: Sat, Oct 14, 2023 at 12:46:21 EDT Position: 4047.747578, -860.742656, 111.13011 Altitude: 291.61 m (957.1ft) Datum: WGS 84 Azimuth Bearing: 232.16 SW 519 mils True (±15°) Elevation Angle: -02.0 Horizon Angle: -02.0 Zoom: 1.0X View of permitted resource impact area wetland Mountain Valley Pipeline</small></p>	 <p><small>Date & Time: Sat, Oct 14, 2023 at 02:28:10 EDT Position: 4047.747578, -860.742656, 111.13011 Altitude: 291.61 m (957.1ft) Datum: WGS 84 Azimuth Bearing: 263.58 SW 4876mils True (±15°) Elevation Angle: -14.2 Horizon Angle: -01.1 Zoom: 1.0X View of unimpacted resource impact area wetland 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: Fri, Oct 06, 2023 at 08:03:26 EDT Position: 4037.514244, -860.742361, 111.13011 Altitude: 291.61 m (957.1ft) Datum: WGS 84 Azimuth Bearing: 188.50 SW 4927mils True (±15°) Elevation Angle: -03.6 Horizon Angle: -03.0 Zoom: 1.0X Wetland Soil Impact South MVP S-L20/W-L11</small></p>	 <p><small>Date & Time: Fri, Oct 06, 2023 at 08:47:01 EDT Position: 4037.514244, -860.742361, 111.13011 Altitude: 291.61 m (957.1ft) Datum: WGS 84 Azimuth Bearing: 194.51 SW 4880mils True (±15°) Elevation Angle: -01.7 Horizon Angle: -03.7 Zoom: 1.0X Wetland Soil Impact South Mountain Valley</small></p>	
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 1: Soil test pit. No recharge. Soils are not saturated.	Description	Photo 2: Wetland soil separation from stream soil.

Optional Photos

<p><small>Date & Time: Mon, Oct 09, 2023 at 08:45:52 EDT Position: 437.949541 N / 680.72260 W (±13.4ft) Altitude: 2927ft (±36.3ft) Datum: WGS-84 Azimuth/Bearing: 178.502E 116.60mils True (±12.1) Elevation Angle: -02.9 Horizon Angle: +02.3 Zoom: 1.0X S-L20 TRENCH GOING AWAY SIDE SOUTH H Mountain Valley</small></p>	<p><small>Date & Time: Mon, Oct 09, 2023 at 11:02:46 EDT Position: 437.949541 N / 680.72260 W (±13.4ft) Altitude: 2927ft (±36.3ft) Datum: WGS-84 Azimuth/Bearing: 178.502E 116.60mils True (±12.1) Elevation Angle: -02.9 Horizon Angle: +02.3 Zoom: 1.0X S-L20 W-L11 MOVING PIPE Mountain Valley</small></p>
<p>GPS Location See Photo</p>	<p>GPS Location See Photo</p>
<p>Description Photo 3: Trench excavated through aquatic resource area.</p>	<p>Description Photo 4: Moving pipe to place in trench.</p>
<p><small>Date & Time: Fri, Oct 13, 2023 at 11:04:16 EDT Position: 437.949541 N / 680.72260 W (±13.4ft) Altitude: 2927ft (±36.3ft) Datum: WGS-84 Azimuth/Bearing: 178.502E 116.60mils True (±12.1) Elevation Angle: -23.6 Horizon Angle: -02.1 Zoom: 1.0X Trench breaker completed for going away MVP - S-L20 W-L11</small></p>	<p><small>Date & Time: Fri, Oct 13, 2023 at 12:24:36 EDT Position: 437.949541 N / 680.72260 W (±13.4ft) Altitude: 2928ft (±36.3ft) Datum: WGS-84 Azimuth/Bearing: 317.043W 56.36mils True (±12.1) Elevation Angle: -15.9 Horizon Angle: -01.1 Zoom: 1.0X resource backfilled prior to topsoil placement MVP - S-L20 W-L11</small></p>
<p>GPS Location See Photo</p>	<p>GPS Location See Photo</p>
<p>Description Photo 5: Backfilling of trench around trench breaker.</p>	<p>Description Photo 6: Aquatic resource area backfilled. Prior to topsoil restoration.</p>
<p><small>Date & Time: Sat, Oct 14, 2023 at 10:41:40 EDT Position: 437.949541 N / 680.72260 W (±13.4ft) Altitude: 2927ft (±36.3ft) Datum: WGS-84 Azimuth/Bearing: 178.502E 116.60mils True (±12.1) Elevation Angle: -44.8 Horizon Angle: -04.8 Zoom: 1.0X high water mark topsoil Mountain Valley Pipeline</small></p>	<p><small>Date & Time: Sat, Oct 14, 2023 at 10:41:40 EDT Position: 437.949541 N / 680.72260 W (±13.4ft) Altitude: 2927ft (±36.3ft) Datum: WGS-84 Azimuth/Bearing: 178.502E 116.60mils True (±12.1) Elevation Angle: -44.8 Horizon Angle: -04.8 Zoom: 1.0X Test Pit 5 Mountain Valley Pipeline</small></p>
<p>GPS Location See Photo</p>	<p>GPS Location See Photo</p>
<p>Description Photo 7: Returning wetland topsoil.</p>	<p>Description Photo 8: Restoring wetland topsoil (shovel work).</p>