



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 #	101		
Environmental Auditor	Eric Schicker			Date/Time	10/25/2023 11:10 AM
Wetland ID	W-EE4	Crossing Start Date	10/25/2023	Crossing Completion Date	11/6/2023
Milepost	158.90	Pre-Con Assessment Date	10/25/2023	Post-Con Assessment Date	11/6/2023
Station	8389+92	Cowardin Classification	PEM	Wetland Impact Area(acres)	0.0453
State	WV				
County	Summers				

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.)	2		3

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Additional Notes

Pre-construction notes:
 Pre-construction Meeting - 10/21/2023
 Vegetation cleared.
 17. Little to no surface water, soil saturated and recharge occurred (Photo 1). Soil clearly hydric.

10/25/2023 - Top 12" of topsoil removed and segregated (Photo 2) to be stockpiled and stored separately. Excavation of trench started. Blasting prep and completed (to breakup bedrock). Rock and spoil removed from trench and relocated to upland area within LOD.

10/26/2023 - Additional drilling and blasting ongoing. Timber mats put in place to allow for additional trench excavation in resource area (Photo 3). Trench through resource compelled (Photo 4). Safety fence installed around trench.

10/27/2023 - More trenching outside resource area and through road cut. Begin pumping in trench. TMB constructed and Jersey Barriers setup at road crossing. Padding added to trench. Pipe sections transported to resource crossing and placed in trench (Photo 5). Hammering and excavation ongoing outside resource crossing, rock and spoil removed.

10/28/2023 - Pumping from trench. Excavating in trench, hammering, and spoil removal outside of aquatic resource area. Bedding added to trench. Rock shield applied to pipe and pipe sections transported to trench outside aquatic resource area.

10/30/2023-10/31/2023 - Pumping from trench. Lowering more pipe sections into trench outside resource area. Welding, x-ray, and sandblasting on-going. Pipe sections transported to trench outside resource area.

11/1/2023 - Welding, sandblasting and coating continued. Test lead wire installed for test box.


11/2/2023 - Pumping from trench. Impervious trench breakers built within 25-ft of stream crossing (Photo 6). Padding dirt added to trench. Welding outside resource area. Rock shield applied to pipe. X-ray of welds.

11/3/2023 - Backfilling of trench at resource (Photo 7). Survey team onsite. Returned topsoil to resource area and survey team used pre-construction data to restore wetland elevation. Trench breakers built on either side of road crossing and sand used for wet padding (outside resource area).

11/4/2023-11/6/2023 - Wetland seeded (Photo 8). Concrete poured for road crossing and grading done outside resource area. Survey team onsite to reshoot wetland boundaries per FERC request. 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.

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
Eric Schicker		Potesta	11/9/2023

Required Photos					
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 <p style="font-size: small; margin-top: 5px;">Date & Time: Wed, Oct 25, 2023, 11:06:56 AM Position: +037.813657, -080.746938 (±15 m) Altitude: 276.3 ft (±1.2 m) Datum: WGS 84 Azimuth/Bearing: 334° N06W 6293mils True (±12°) Elevation Angle: 10.8° Horizon Angle: 10.8° Zoom: 1.0X W/EPA regulated/wetland/soil impact Mountain Valley Pipeline</p>	 <p style="font-size: small; margin-top: 5px;">Date & Time: Wed, Oct 25, 2023, 04:36:05 PM Position: +037.813657, -080.746938 (±15 m) Altitude: 276.3 ft (±1.2 m) Datum: WGS 84 Azimuth/Bearing: 334° N06W 6293mils True (±12°) Elevation Angle: 10.8° Horizon Angle: 10.8° Zoom: 1.0X W/EPA regulated/wetland/soil impact Mountain Valley Pipeline</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 style="font-size: small; margin-top: 5px;">Date & Time: Mon, Nov 06, 2023, 11:29:38 EST Position: +037.814009, -080.746791 (±15 m) Altitude: 295.8 ft (±1.2 m) Datum: WGS 84 Azimuth/Bearing: 213° S33W 3787mils True (±12°) Elevation Angle: -14.0° Horizon Angle: 10.8° Zoom: 1.0X W/EPA regulated/wetland/soil impact Mountain Valley Pipeline</p>	 <p style="font-size: small; margin-top: 5px;">Date & Time: Mon, Nov 06, 2023, 14:22:58 EST Position: +037.813657, -080.746912 (±15 m) Altitude: 276.3 ft (±1.2 m) Datum: WGS 84 Azimuth/Bearing: 334° N06W 6293mils True (±12°) Elevation Angle: 10.8° Horizon Angle: 10.8° Zoom: 1.0X W/EPA regulated/wetland/soil impact Mountain Valley Pipeline</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 style="font-size: small; margin-top: 5px;">Date & Time: Wed, Oct 25, 2023, 11:07:01 AM Position: +037.813657, -080.746938 (±15 m) Altitude: 276.3 ft (±1.2 m) Datum: WGS 84 Azimuth/Bearing: 334° N06W 6293mils True (±12°) Elevation Angle: 10.8° Horizon Angle: 10.8° Zoom: 1.0X W/EPA regulated/wetland/soil impact Mountain Valley Pipeline</p>	 <p style="font-size: small; margin-top: 5px;">Date & Time: Wed, Oct 25, 2023, 12:57:10 PM Position: +037.813657, -080.749010 (±15 m) Altitude: 276.3 ft (±1.2 m) Datum: WGS 84 Azimuth/Bearing: 334° N06W 6293mils True (±12°) Elevation Angle: 10.8° Horizon Angle: 10.8° Zoom: 1.0X W/EPA regulated/wetland/soil impact Mountain Valley Pipeline</p>		
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 1: Wetland test pit with recharge.	Description	Photo 2: Wetland topsoil being segregated using Marooka.

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Optional Photos

 <p><small>Date & Time: Thu, Oct 26, 2023, 11:18:10 GMT-4 Position: +037.813843, -080.748979 (-15.3ft) Altitude: 2977ft (+90.9m) Datum: WGS-84 Azimuth Bearing: 109.571E 193mils True (-21.1) Elevation Angle: -03.2 Horizon Angle: -01.0 Zoom: 1.0X W-EE4 installing timber mats for bridge Mountain Valley Pipeline.</small></p>	 <p><small>Date & Time: Thu, Oct 26, 2023, 14:16:03 GMT-4 Position: +037.814024, -080.748885 (-26.7ft) Altitude: 2952ft (+90.3m) Datum: WGS-84 Azimuth Bearing: 174.506E 3093mils True (-12) Elevation Angle: -12.4 Horizon Angle: -01.8 Zoom: 1.0X W-EE4 digging trench through resource Mountain Valley Pipeline.</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 3: Installing timber mats to allow excavation of trench through aquatic resource.	Description Photo 4: Excavating trench through resource.
 <p><small>Date & Time: Fri, Oct 27, 2023, 10:38:55 EDT Position: +037.814850, -080.748745 (-93.0ft) Altitude: 2960ft (+90.9m) Datum: WGS-84 Azimuth Bearing: 197.533E 2613mils True (-2.4) Elevation Angle: -09.2 Horizon Angle: +00.4 Zoom: 1.0X W-EE4 setting pipe in trench through resource Mountain Valley Pipeline.</small></p>	 <p><small>Date & Time: Thu, Nov 02, 2023, 16:04:33 GMT-4 Position: +037.813898, -080.748905 (-195.3ft) Altitude: 2952ft (+90.3m) Datum: WGS-84 Azimuth Bearing: 119.582E 2098mils True (-14) Elevation Angle: -19.3 Horizon Angle: -04.9 Zoom: 1.0X W-EE4 building trench breakers Mountain Valley Pipeline.</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 5: Lowering pipe into trench in resource area.	Description Photo 6: Building trench breakers.
 <p><small>Date & Time: Fri, Nov 03, 2023, 11:08:55 EDT Position: +037.813843, -080.748936 (-163.8ft) Altitude: 2965ft (+90.9m) Datum: WGS-84 Azimuth Bearing: 109.571E 193mils True (-21.1) Elevation Angle: -03.4 Horizon Angle: -01.4 Zoom: 1.0X W-EE4 backfilling trench Mountain Valley Pipeline.</small></p>	 <p><small>Date & Time: Sat, Nov 04, 2023, 08:29 EDT Position: +037.815272, -080.748822 (-95.4ft) Altitude: 2964ft (+90.9m) Datum: WGS-84 Azimuth Bearing: 9.300E 5669mils True (-12) Elevation Angle: -12.5 Horizon Angle: -00.5 Zoom: 1.0X W-EE4 seeding wetland Mountain Valley Pipeline.</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 7: Backfilling of aquatic resource area.	Description Photo 8: Applying seed to the wetland resource.