



# Wetland Biological Conditions EA Report

<b>Project Name</b>	H-600 Pipeline Spread E	<b>A/E</b>	124300134	<b>Spread</b>	H-600 Pipeline Spread E
<b>Contractor</b>	Price Gregory	<b>Report #</b>	30		
<b>Environmental Auditor</b>	Dan Miller			<b>Date/Time</b>	8/24/2023 10:57 AM
<b>Wetland ID</b>	W-H31	<b>Crossing Start Date</b>	8/26/2023	<b>Crossing Completion Date</b>	9/9/2023
<b>Milepost</b>	6964.45	<b>Pre-Con Assessment Date</b>	8/24/2023	<b>Post-Con Assessment Date</b>	9/9/2023
<b>Station</b>	367722+96	<b>Cowardin Classification</b>	PEM	<b>Wetland Impact Area(acres)</b>	0.0139
<b>State</b>	WV				
<b>County</b>	Nicholas				

### 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	<b>Wetland Saturation:</b> Are surface waters, the water table, and/or overall soil saturation present? (Select Yes or No)	No	No
18	<b>Resource Alterations:</b> Are the wetland soil conditions visibly disturbed? <b>Examples:</b> Livestock presence, haul roads, farm traffic, drain tiles, recent mowing/clear cutting, recent excavating/disking of soils, etc. <b>Rating:</b> 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	<b>Is vegetation present within the permitted impact area prior to disturbance? (Pre-Con) Are areas properly seeded and stabilized after restoration? (Post-Con)</b> <b>Rating:</b> 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

<b>AFE</b> 124300134	<b>Date/Time</b> 8/24/2023 10:57 AM	<b>Report #</b> 30
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**Additional Notes**

Pre-Construction Notes  
 Pre-Construction Meeting 1000 (8/24/2023)  
 Pre-Construction Assessment Completed (8/24/2023)  
 EI for crossing is Justin Vanhorn

17. No surface water, saturation, or water table present in wetland. Secondary indicators present and wetland vegetation noted.

Day 1 (8/26/2023)  
 Rain over past 24hr ~1.1 inches. Wetland topsoil was excavated (Photo 1) and stored in upland area (Photo 2). Work at site also included hammering and digging of trench (Photo 3), rock and soil relay.

Day 2 (8/27/2023)  
 Hammering and trench development continued. Bedding placed in trench to prepare for pipe placement (Photo 4). Section of pipe placed in trench (Photo 5).

Day 3 and Day 4 (8/28/2023 and 8/29/2023)  
 Welding on-going throughout both days. Stop work occurred on Day 4 due to safety concerns associated with the trench. Precipitation total for both days ~ 1.95 inches.

Day 5 (8/31/2023)  
 Work consisted of a combination of the following activities: welding; maintaining trench integrity; pumping; pipe rock guards, sand blasts, and coating. A trench guard was also put in place.

Day 6 (9/1/2023)  
 A misalignment was identified, pipe removed and associated adjustments to trench were ongoing.

Day 7 (9/2/2023)  
 Trench surveyed; pipe returned to trench and welding proceeded.

Holiday Weekend - No work 9/3/2023 and 9/4/2023

Day 8 (9/5/2023) and Day 9 (9/6/2023)  
 Welding and x-ray of the pipe in the trench was ongoing. Once x-ray was completed backfilling of the trench outside of the resource area began.

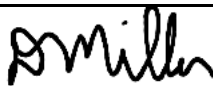
Day 10 (9/7/2023)  
 Installed cathodic protection. Construction of three trench breaks adjacent to resource were completed. Filling of trench on-going outside water resources.

Day 11 (9/8/2023)  
 Final trench break completed (Photo 6). Trench filling in the resource area was completed. Survey completed for final contouring of the resource. Wetland soil was returned to resource location (Photo 7).

Day 12 (9/8/2023)  
 Flume removed. Wetland was seeded (Photo 8). Post construction assessment completed.

Post Construction Notes  
 17. Water was not noted in resource post construction. Soils were not saturated.  
 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 & Associates	9/9/2023



<b>Required Photos</b>	
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 <p><small>Date &amp; Time: Thu, Aug 24, 2023 at 10:58:53 EDT Position: +038.116355 / -080.735360 (±26.2ft) Altitude: 2648ft (±47.7ft) Datum: WGS-84 Azimuth Bearing: 256.576W / 0551mils (True) (±12°) Elevation Angle: -07.3 Horizon Angle: +01.3 Zoom: 1.0X Wetland view impacted area preconstruction MVP S-H44</small></p>	 <p><small>Date &amp; Time: Thu, Aug 24, 2023 at 10:59:59 EDT Position: +038.116377 / -080.735289 (±27.4ft) Altitude: 2642ft (±47.4ft) Datum: WGS-84 Azimuth Bearing: 256.576W / 0551mils (True) (±12°) Elevation Angle: -07.3 Horizon Angle: +01.3 Zoom: 1.0X Wetland view impacted area preconstruction MVP S-H44</small></p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> View of permitted resource impact area during pre-construction assessment.	<b>Description</b> At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment.
 <p><small>Date &amp; Time: Sat, Sep 09, 2023 at 15:29:04 EDT Position: +038.116584 / -080.735351 (±23.6ft) Altitude: 2644ft (±48.0ft) Datum: WGS-84 Azimuth Bearing: 408.528W / 3698mils True (±22°) Elevation Angle: -07.7 Horizon Angle: +01.7 Zoom: 1.0X View of impacted area, post construction assessment MVP S-H64/W-H31</small></p>	 <p><small>Date &amp; Time: Sat, Sep 09, 2023 at 15:31:01 EDT Position: +038.116316 / -080.735209 (±23.3ft) Altitude: 2645ft (±48.5ft) Datum: WGS-84 Azimuth Bearing: 093.597E / 1653mils (True) (±12°) Elevation Angle: -21.2 Horizon Angle: -00.4 Zoom: 1.0X DS view of unimpacted area, edge of ROW post construction assessment MVP S-H64/W-H31</small></p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> View of permitted resource impact area during post-construction assessment.	<b>Description</b> At edge of LOD, view of unimpacted resource area conditions during post-construction assessment.
 <p><small>Date &amp; Time: Sat, Aug 26, 2023 at 11:55:19 EDT Position: 038.116428 N / 080.735403 W (±31.8ft) Altitude: 2659ft (±43.8ft) Datum: WGS-84 Azimuth Bearing: 122.538E / 2169mils True (±12°) Elevation Angle: -26.4 Horizon Angle: +03.0 Zoom: 1.0X W-H31 WETLAND SOIL Mountain Valley</small></p>	 <p><small>Date &amp; Time: Sat, Aug 26, 2023 at 12:30:18 EDT Position: 038.116984 N / 080.735184 W (±17.1ft) Altitude: 2631ft (±30.0ft) Datum: WGS-84 Azimuth Bearing: 088.988E / 1564mils (True) (±12°) Elevation Angle: -29.5 Horizon Angle: +00.9 Zoom: 1.0X W-H31 WETLAND SOIL Mountain Valley</small></p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> Photo 1: Removal of wetland soil.	<b>Description</b> Photo 2: Wetland soils segregated and stored in upland area.



**Optional Photos**

 <p><small>Date &amp; Time: Sat, Aug 26, 2023 at 10:47:04 EDT Position: 038.116408° N / -080.735393° W (-44.3ft) Altitude: 2645ft (-496.3ft) Datum: WGS-84 Azimuth/Bearing: 125° 05'E 222mils True (-12.7) Elevation Angle: -28.6 Horizon Angle: -06.9 Zoom: 1.0X MVP: S-H64/W-H31 Stream Crossing: HAMMERING Mountain Valley</small></p>		 <p><small>Date &amp; Time: Sun, Aug 27, 2023 at 10:41:20 EDT Position: 038.116428° N / -080.735393° W (-44.3ft) Altitude: 2649ft (-497.8ft) Datum: WGS-84 Azimuth/Bearing: 159° 52'E 232mils True (-13.4) Elevation Angle: -13.4 Horizon Angle: +06.9 Zoom: 1.0X MVP: S-H64/W-H31 Stream Crossing: HAMMERING Mountain Valley</small></p>	
<p><b>GPS Location</b> See Photo</p>		<p><b>GPS Location</b> See Photo</p>	
<p><b>Description</b></p>	<p>Photo 3: Hammering rock in trench.</p>	<p><b>Description</b></p>	<p>Photo 4: Placing bedding in trench for pipe support.</p>
 <p><small>Date &amp; Time: Sun, Aug 27, 2023 at 09:55:26 EDT Position: 038.116392° N / -080.735315° W (-44.3ft) Altitude: 2639ft (-437.8ft) Datum: WGS-84 Azimuth/Bearing: 194° 50'W 377mils True (-13.1) Elevation Angle: -11.7 Horizon Angle: -12.2 Zoom: 1.0X MVP: S-H64/W-H31 Stream Crossing: PIPE LOWERING Mountain Valley</small></p>		 <p><small>Date &amp; Time: Fri, Sep 08, 2023 at 08:57:04 EDT Position: 038.116259° N / -080.735250° W (-44.3ft) Altitude: 2643ft (-471.3ft) Datum: WGS-84 Azimuth/Bearing: 209° 52'W 371mils True (-13.1) Elevation Angle: -08.2 Horizon Angle: -01.0 Zoom: 1.0X Stream Crossing: Facing South side of day MVP: S-H64/W-H31</small></p>	
<p><b>GPS Location</b> See Photo</p>		<p><b>GPS Location</b> See Photo</p>	
<p><b>Description</b></p>	<p>Photo 5: Placing pipe in stream on left descending bank of resource.</p>	<p><b>Description</b></p>	<p>Photo 6: Construction of final trench break.</p>
 <p><small>Date &amp; Time: Sat, Sep 09, 2023 at 13:23:52 EDT Position: 038.117134° N / -080.735116° W (-45.0ft) Altitude: 2624ft (-458.7ft) Datum: WGS-84 Azimuth/Bearing: 165° 51'E 2933mils True (-12.7) Elevation Angle: -16.8 Horizon Angle: +04.2 Zoom: 1.0X Returning stream bank soil and wetland soil to origin. MVP: S-H64/W-H31</small></p>		 <p><small>Date &amp; Time: Sat, Sep 09, 2023 at 10:05:51 EDT Position: 038.116261° N / -080.735132° W (-45.0ft) Altitude: 2644ft (-475.0ft) Datum: WGS-84 Azimuth/Bearing: 198° 50'W 380mils True (-12.7) Elevation Angle: -8.9 Horizon Angle: +02.3 Zoom: 1.0X Seeding to 1311 MVP: S-H64/W-H31</small></p>	
<p><b>GPS Location</b> See Photo</p>		<p><b>GPS Location</b> See Photo</p>	
<p><b>Description</b></p>	<p>Photo 7: Segregated wetland soil prior to returning to resource area.</p>	<p><b>Description</b></p>	<p>Photo 8: Seeding wetland.</p>