



# Wetland Biological Conditions EA Report

<b>Project Name</b>	H-600 Pipeline Spread E	<b>AFE</b>	124300134	<b>Spread</b>	H-600 Pipeline Spread E
<b>Contractor</b>	Price Gregory	<b>Report #</b>	62		
<b>Environmental Auditor</b>	Tim Ferguson	<b>Date/Time</b>	9/20/2023 9:53 AM		
<b>Wetland ID</b>	W-L2	<b>Crossing Start Date</b>	9/20/2023	<b>Crossing Completion Date</b>	9/28/2023
<b>Milepost</b>	148.46	<b>Pre-Con Assessment Date</b>	9/20/2023	<b>Post-Con Assessment Date</b>	9/28/2023
<b>Station</b>	7838+69	<b>Cowardin Classification</b>	PEM	<b>Wetland Impact Area(acs)</b>	0.0393
<b>State</b>	WV				
<b>County</b>	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?	N/A
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)	Yes		Yes
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)	2		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		4

<b>AFE</b> 124300134	<b>Date/Time</b> 9/20/2023 9:53 AM	<b>Report #</b> 62
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**Additional Notes**

Pre-Construction Notes  
 Pre-Construction Meeting - 9/18/2023 @ 1130  
 Pre-Construction Assessment Completed (9/20/2023)  
 17. Pre-Construction - Test pit contained saturated soils (Photo 1).  
 18. Pre-Construction - Timber mat present (travel lane)

Day 1 (9/20/2023)  
 Dam and pumps put in place. Wetland topsoil removed (Photo 2) and segregated in an upland area (Photo 3).

Day 2 (9/21/2023)  
 Drilling and blasting occurred in and around the aquatic resources. Blasting mats were utilized. Trench excavation (Photo 4) and dewatering occurred post blasting.

Day 3 (9/22/2023)  
 Trench work in resource and pumping from trench on-going. Pipe placed into the trench (Photo 5) and welding outside of the resource occurred.

Day 4 (9/23/2023)  
 X-ray completed on pipe. Survey work on alignment completed and adjustments made. Excavation of trench ongoing outside of resource.


Day 5 and Day 6 (9/25/2023 and 9/25/2023))  
 Trenching continued outside resource area. Other activities include pumping from the trench, coating, and welding. X-ray was completed on Day 6.

Day 7 (9/27/2023)  
 Filling of trench and installing trench breakers (Photo 6).


Day 8 (9/28/2023)  
 Trench at aquatic resources filled (Photo 6). Survey marked resource. Elevations set and topsoil elevations in resource confirmed by survey (Photo 7). Dams removed. Aquatic resources seeded (Photo 8). Post Construction Assessment Completed.

Post Construction Notes  
 7. Permanent wetland seed was applied in-lieu of temporary seed after final wetland topography was confirmed by survey.  
 9. Additional equipment mats were not utilized due to the size of the resource (equipment completed work from outside the wetland boundary). Does not include timber mats that remain in place for travel lane.  
 17. Post Construction test pit contained saturated soils.  
 18. Does not include timber mats that remain in place for travel lane.  
 19. Crossing and riparian areas have been recently restored. These areas will be monitored until 80% vegetative cover 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
Tim Ferguson		Potesta & Associates, Inc.	10/9/2023

<b>Required Photos</b>					
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<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.
			
<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.
			
<b>GPS Location</b>	See Photo	<b>GPS Location</b>	See Photo
<b>Description</b>	Photo 1: Saturated soils in wetland test pit.	<b>Description</b>	Photo 2: Excavating wetland topsoil.

**Optional Photos**

 <p style="font-size: small; color: gray;">Date &amp; Time: Wed, Sep 20, 2023 at 14:35:34 EDT Position: +037°938204' / -080°747152' (±19.8ft) Altitude: 310.6ft (±42.8ft) Datum: WGS-84 Azimuth Bearing: 226° 544W 226mils True (±12°) Elevation Angle: 01° Horizon Angle: 00° Zoom: 1.0X W-L2 Topsoil Storage MVP S-L10/S-L11/W-L2/W-L4</p>	 <p style="font-size: small; color: gray;">Date &amp; Time: Thu, Sep 21, 2023 at 17:57:26 EDT Position: +037°938460' / -080°746983' (±67.6ft) Altitude: 310.6ft (±42.8ft) Datum: WGS-84 Azimuth Bearing: 184° 504W 327mils True (±12°) Elevation Angle: -12.4° Horizon Angle: 00.8° Zoom: 1.0X Trench facing South end of day MVP S-L10/S-L11/W-L2/W-L4</p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> Photo 3: Segregated wetland topsoil.	<b>Description</b> Photo 4: Trenching through aquatic resources.
 <p style="font-size: small; color: gray;">Date &amp; Time: Fri, Sep 22, 2023 at 13:32:35 EDT Position: +037°938542' / -080°746884' (±43.9ft) Altitude: 310.0ft (±47.0ft) Datum: WGS-84 Azimuth Bearing: 192° S12W 3413mils True (±21°) Elevation Angle: 00.2° Horizon Angle: 01.0° Zoom: 1.0X Pipe install: North side of crossing MVP S-L10/S-L11/W-L2/W-L4</p>	 <p style="font-size: small; color: gray;">Date &amp; Time: Wed, Sep 20, 2023 at 15:08:54 EDT Position: +037°938418' / -080°746959' (±68.4ft) Altitude: 309.9ft (±16.6ft) Datum: WGS-84 Azimuth Bearing: 240° 540W 4267mils True (±15°) Elevation Angle: -24.7° Horizon Angle: 01.1° Zoom: 110X Trench breakers both sides of stream MVP S-L10/S-L11/W-L2/W-L4</p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> Photo 5: Pipe being placed in trench.	<b>Description</b> Photo 6: Constructing trench breaks.
 <p style="font-size: small; color: gray;">Date &amp; Time: Thu, Sep 28, 2023 at 16:59:33 EDT Position: +037°942829' / -080°741472' (±75262.9ft) Altitude: 306.7ft (±89.6ft) Datum: WGS-84 Azimuth Bearing: 61° S46E 2382mils True (±12°) Elevation Angle: 00.2° Horizon Angle: 00.2° Zoom: 100X W-L2 Topsoil Storage MVP S-L10/S-L11/W-L2/W-L4</p>	 <p style="font-size: small; color: gray;">Date &amp; Time: Thu, Sep 28, 2023 at 17:25:47 EDT Position: +037°938313' / -080°746989' (±73.9ft) Altitude: 309.2ft (±137.8ft) Datum: WGS-84 Azimuth Bearing: 55° S52E 2276mils True (±11°) Elevation Angle: 00.8° Horizon Angle: 00.8° Zoom: 1.0X W-L2 Topsoil Storage MVP S-L10/S-L11/W-L2/W-L4</p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> Photo 7: Topsoil returned and survey of aquatic resources.	<b>Description</b> Photo 8: Aquatic resources being seeded.