



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread B	AFE	124300130	Spread	H-600 Pipeline Spread B
Contractor	Precision	Report #	92		
Environmental Auditor	Rachel Ellis			Date/Time	10/9/2023 1:33 PM
Wetland ID	W-K33-PEM	Crossing Start Date	10/9/2023	Crossing Completion Date	11/3/2023
Milepost	44.81	Pre-Con Assessment Date	10/9/2023	Post-Con Assessment Date	11/3/2023
Station	2366+18	Cowardin Classification	PEM	Wetland Impact Area(acres)	0.1544
State	WV				
County	Lewis				

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?	See Below
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		Yes
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

10/9/23 Pre-construction Assessment
 There wasn't any standing water within the area of W-K33-PEM permitted to be disturbed, but the soil was saturated. The area was well vegetated with some of it starting to wilt with the seasonal changes. The area was surveyed, and wetland topsoil was removed and segregated. R. Ellis

10/10/23-10/13-23 - The crew worked on installing sheet piling. R. Ellis

10/14/23 - Crawfish were found in the wetland. Any that were able to be captured were moved west outside of the area to be disturbed. There was heavy rainfall off and on throughout the day, so water was continuously dewatered from wetland and no further digging commenced. R. Ellis

10/16/23 - The crew completed digging to expose the northern end of the existing pipeline. They then started digging at the southern end closer to the road. Before digging started today, the crew moved the wetland topsoil pile to the other side of the timber mats to keep the topsoil safely separated from the trench and digging work. F. Stabile

10/17/23 - The crew completed digging to expose the southern end of the existing pipeline. They installed a trench box and metal plate to reinforce the trench and placed Jersey barriers along the road adjacent to the trench. F. Stabile

10/18/23 - The crew began digging the middle portion of the trench where the tie-in section will be installed. F. Stabile

10/19/23 - The crew finished digging the middle portion, completing the trench. Before digging, the crew removed additional wetland topsoil adjacent to the trench and added it to the topsoil pile. F. Stabile

10/20/23 - 10/25/23 - The crew prepared and moved four segments of new pipeline into the trench. Welders completed welding, x-ray inspections, and coating of the five welds. Water was pumped out of the trench each day. R. Ellis

10/26/23 - Crews completed the installation of rock shielding on the pipeline and placed sandbag trench breakers. R. Ellis

10/27/23 - 10/28/23 - The crew worked on backfilling. R. Ellis

10/30/2023 - Construction canceled for the day due to the rain. M. Huber

10/31/2023 - The crew worked on site cleanup and removing construction materials. M. Huber, R. Ellis

11/01/2023 - Crew began removing sheet piling in wetland crossing. M. Huber, R. Ellis


11/02/2023 - Crew stacked and removed sheet piling off of the site as well as backfilled the slope leading up to the public road adjacent to the site. The stockpiled 12 inches of wetland topsoil was replaced and returned to previous elevation. M. Huber, R. Ellis

11/3/23 - The topsoil was properly seeded.

Post-construction Assessment:
 Conditions 18 and 19 were given a rating of 4 during the post-construction assessment due to the lack of vegetation in the disturbed permitted impact area following the completion of the crossing and restoration efforts. The W-K33 PEM wetland topsoils were properly stabilized, and the disturbed area has been seeded with the appropriate permanent seed mix in accordance with Appendix B: Restoration Work Plan of the Mountain Valley Pipeline Comprehensive Stream and Wetland Monitoring, Restoration and Mitigation Framework.

Question 4:
 There was excess wetland topsoil after restoring the 12 inches in the permitted disturbed area. There was previously an established staging area through the wetland. Once the timber mats are removed from this section, this excess soil will be placed there. R. Ellis

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
Rachel Ellis		ERM	11/3/2023

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Required Photos

GPS Location	Refer to above photo.	GPS Location	Refer to above 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.
GPS Location	Refer to above photo.	GPS Location	Refer to above 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.
GPS Location	Refer to above photo.	GPS Location	Refer to above photo.
Description	Sheet piling through the area began.	Description	The sheet piling continued.

Optional Photos		
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 <p><small>Date & Time: Wed, Oct 11, 2023, 09:33:37 EDT Position: +000 000000 / +000 000000 (Error) Altitude: 0ft (Error) Datum: WGS-84 Azimuth Bearing: 262° 58'W 4658mils True (±10°) Elevation Angle: +05.0° Horizon Angle: +00.0° Zoom: 1.0X</small></p>	 <p><small>Date & Time: Thu, Oct 12, 2023, 08:27:22 EDT Position: +039 095172 / -080 586438 (±16.4ft) Altitude: 948ft (±11.3ft) Datum: WGS-84 Azimuth Bearing: 246° 56'W 4373mils True Elevation Angle: -04.7° Horizon Angle: +00.5° Zoom: 1.0X</small></p>
GPS Location Refer to above photo.	GPS Location Refer to above photo.
Description The sheet piling continued.	Description The sheet piling continued.
 <p><small>Date & Time: Sat, Oct 14, 2023, 08:13:57 EDT Position: +039 095206 / -080 586910 (±32.8ft) Altitude: 954ft (±39.4ft) Datum: WGS-84 Azimuth Bearing: 210° 53'W 3733mils True (±10°) Elevation Angle: -14.7° Horizon Angle: -00.8° Zoom: 1.0X</small></p>	 <p><small>Date & Time: Mon, Oct 16, 2023, 09:48:04 EDT Position: +039 095167 / -080 586488 (±15.4ft) Altitude: 942ft (±11.3ft) Datum: WGS-84 Azimuth Bearing: 194° 53'W 3666mils True (Error) Elevation Angle: +0.5° Horizon Angle: +00.5° Zoom: 1.0X</small></p>
GPS Location Refer to above photo.	GPS Location Refer to above photo.
Description Part of the area was not able to be sheet piled due to rock. So at this point the sheet piling was to be removed and another method used.	Description The wetland topsoil pile after being moved to the other side of the timber mats away from the trench and digging.
 <p><small>Date & Time: Wed, Oct 18, 2023, 08:55:06 EDT Position: +039 095158 / -080 586474 (±15.4ft) Altitude: 941ft (±11.3ft) Datum: WGS-84 Azimuth Bearing: 194° 51'W 3484mils True (±16°) Elevation Angle: -23.3° Horizon Angle: +01.5° Zoom: 0.5X</small></p>	 <p><small>Date & Time: Wed, Oct 25, 2023, 08:55:06 EDT Position: +039 095158 / -080 586474 (±15.4ft) Altitude: 941ft (±11.3ft) Datum: WGS-84 Azimuth Bearing: 194° 51'W 3484mils True (±16°) Elevation Angle: -23.3° Horizon Angle: +01.5° Zoom: 0.5X</small></p>
GPS Location Refer to above photo.	GPS Location Refer to above photo.
Description Completed excavation of the trench.	Description Completed installation of the new pipeline. Coating of the welds in progress.