



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread D	AFE	124300132	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	21		
Environmental Auditor	Caroline Cope			Date/Time	8/18/2023 4:51 PM
Wetland ID	W-E21	Crossing Start Date	8/8/2023	Crossing Completion Date	8/12/2023
Milepost	109.63	Pre-Con Assessment Date	8/8/2023	Post-Con Assessment Date	8/12/2023
Station	5788+46	Cowardin Classification	PEM	Wetland Impact Area(acres)	0.0389
State	WV				
County	Webster				

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?	No
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?	N/A
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

08/08/2023 – Wetland crossing W-E21, which is divided by stream S-E50, was started today. All wetland soil to a depth of 12 inches and from the high-water marks to the stacked wetland boundary were segregated and stockpiled to the right side of the LOD on the coming inside of the crossing. The wetland topsoil was covered by a tarp and signage posted. The disturbed soil across the trench width was approximately 10-12 feet on either side of the pipe. The blasting crew was required after excavating the first few feet of the trench. After blasting the trench excavation continued until reaching the required depth. Ground water in the trench was pumped into a dewatering structure on the coming inside of the crossing. A twelve-inch flume pipe was installed to channel the stream water overnight.

08/09/2023 – Dewatering operations of the trench continued throughout the day. Excavation of the trench on the going away side of the crossing was completed. On the coming inside of the trench the construction crew encountered a large boulder approximately 30ft by 12ft in size that needed to be hammered out, which slowed production. The segment of pipe for the crossing was lowered into the trench later in the day and welding commenced. A twelve-inch flume pipe continued to channel the stream water (S-E50) throughout the day and during the night.

08/10/2023 – A rain out event halted construction for the remainder of the day. Water bars were reinforced, and environmental monitoring was conducted during periods of heavy rainfall.

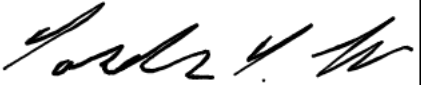
08/11/20 - The coming in side of the pipe will be tied in after the stream and wetland have been put back together, due to rain prediction in the forecast. Dewatering of the trench water continued throughout the day. Welding and X-ray completed the connection on the going away side of the crossing by the end of the day. The flume pipe continued to channel the stream water (S-E50) throughout the day and during the night.






08/12/2023 – Wetland W-E21 was completed today, with the top 12 inches of topsoil being properly installed. The flume pipe was removed and a pump around was temporarily installed during the backfilling of W-E21 and S-E50. Curlex was installed up to the edge of the wetland boundary for erosion control and the wetland seed mix was applied.

#9 - Timber mat remained in place after completion of stream restoration, construction still occurring on ROW.

#17 - Upon completion of the restoration of W-E21 only soil saturation was present.

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
Caroline Cope		SWCA	8/12/2023

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Required Photos					
<p>8/8/23 8:39 AM +38.3706N -80.6119W 52° NE W-E21 (Pre_CC)f</p> 		<p>8/8/23 8:41 AM +38.3707N -80.6118W 55° NE W-E21 (Pre_CC)f</p> 			
GPS Location 38.3706, -80.6119		GPS Location 38.3707, -80.6118			
Description View of permitted resource impact area during pre-construction assessment. W-E21		Description At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment. W-E21			
<p>8/12/23 7:38 PM +38.3706N -80.6119W 56° NE W-E21 (Post_CC)</p> 		<p>8/12/23 7:42 PM +38.3706N -80.6119W 43° NE W-E21 (Post_CC)</p> 			
GPS Location 38.3706, -80.6119		GPS Location 38.3706, -80.6119			
Description View of permitted resource impact area during post-construction assessment. W-E21		Description At edge of LOD, view of unimpacted resource area conditions during post-construction assessment. W-E21			
<p>8/8/23 11:06 AM +38.3707N -80.6123W 249° W W-E21 (Dur_CC)</p> 		<p>Insert image here</p>			
GPS Location 38.3707, -80.6123		GPS Location			
Description View of wetland topsoil and stream substrate stored within the ROW during construction. W-E21.		Description			

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Optional Photos					
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