



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread D	AFE	124300131	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	52		
Environmental Auditor	Todd Grant			Date/Time	9/11/2023 2:08 PM
Wetland ID	W-B28	Crossing Start Date	9/11/2023	Crossing Completion Date	9/22/2023
Milepost	107.20	Pre-Con Assessment Date	9/8/2023	Post-Con Assessment Date	9/23/2023
Station	5660+25	Cowardin Classification	PEM	Wetland Impact Area(acres)	0.0992
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?	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)	No		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)	4		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.)	4		4

AFE 124300131	Date/Time 9/11/2023 2:08 PM	Report # 52
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Additional Notes

9/11/2023- Commenced crossing of W-B28. Biological condition 18 and 19 were given a rating of "4-Poor" due to the wetland being covered with Geotextile fabric and timber mats for an extended period of time leading up to the current phase of construction. The presence of the mats prevented recent preconstruction photos of an undisturbed wetland within the construction boundaries. The top 12" of wetland topsoil was segregated and stockpiled on timber mats and Geotech fabric within the wetland boundaries. The topsoil was stabilized by covering it with plastic. The contractor drilled holes for blasting subsurface rock in the ditch line in order to achieve necessary pipe depth. The drilled holes in the wetland indicated that the majority of ditch material would likely be rock and coal.

9/12/2023- The contractor attempted to dig the trench without blasting in the wetland but was not successful. The contractor continued drilling holes for blasting on the westside of road in the morning and completed perforating the road in the afternoon. Maintenance was performed on the side-boom crane winch cable.

9/13/2023- The contractor resumed preparations for blasting activities and blasted the wetland, stream S-B29, road and the going away side (GAS) slope.

9/14/2023- The contractor cleared and removed all of the blasting mats so that ditch excavation could begin. The ditch had significant ground water flow and contractor pumped the ditch water to an upland dewatering structure. The contractor worked most of the day on a system for controlling the ground water flow in the ditch. Contractor set up 6" pumps for dewatering the ditch and a pump crew monitored the pumps through the night.

9/15/2023- The contractor worked on the dewatering structures and clean water conveyance. After most of the water was removed from the ditch, the contractor was able to complete ditch excavation from the wetland, under stream S-B29 to the coming in side (CIS) loose end.

9/16/2023- The contractor lowered in the pipe section under stream S-B29 extending into wetland W-B28 and completed welding activities.

9/18/2023- The contractor completed ditching activities through wetland W-B28 for tie-in to GAS. Dewatering activities are continuing.

9/19/2023- The contractor lowered in the pipe section to complete the crossing of wetland W-B28.

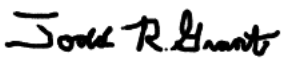
9/20/2023- The contractor worked on completing one of the last two tie in welds so that padding and backfilling could begin. Coating and cathodic protection activities were performed in the wetland section of the trench.

9/21/2023- Final tie in welding activities were completed and the contractor installed trench breakers. Padding and backfilling began in wetland W-B28.

9/22/2023- The pipe was padded, and trench box was removed from the wetland. Backfilling was completed and the top 12 inches of topsoil was replaced. The contractor made all efforts to recontour the area to original condition without over compacting the soil. ECDs at the wetland boundaries were replaced. Conditions 18 and 19 were given a rating of 4 due to lack of vegetation in the disturbed permitted impact area following the crossing and restoration efforts. The W-B28 PEM topsoil 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. Buffer zones of wetland W-B28 were seeded and stabilized.




9/23/2023- Post construction assessment of the wetland W-B28 was conducted, and it was observed that the portion of the wetland disturbed during the wetland ditch crossing has been restored. The undisturbed areas on either side of the ditch line during this phase of construction continue to have timber mats present that have been in place for an extended period prior to this phase. The contractor foreman stated that it was his understanding that all remaining timber mats would be removed when the cleanup crew commences with removal of the equipment bridge that also crosses the wetland.

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
Todd Grant		SWCA	9/23/2023

AFE 124300131	Date/Time 9/11/2023 2:08 PM	Report # 52
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Required Photos

<p>9/8/23 09:25:00 38.3995N 80.5975W 23° NE W-B28 (Pre_RG)</p> 	<p>9/8/23 09:25:16 38.3996N 80.5976W 38° NE W-B28 (Pre_RG)</p> 
<p>GPS Location See photo above</p>	<p>GPS Location See photo above</p>
<p>Description View of permitted resource impact area during pre-construction assessment. Timber mats and geotextile fabric that has been covering wetland for a long time.</p>	<p>Description At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment. View of undisturbed wetland outside of the LOD pre-construction.</p>
<p>09/23/2023 14:26:02 +38.399573,-80.597518 82° E W-B28 (Pos_TG)</p> 	<p>09/23/2023 13:56:44 +38.399646,-80.597599 62° NE W-B28 (Pos_TG)</p> 
<p>GPS Location See photo above</p>	<p>GPS Location See photo above</p>
<p>Description View of permitted resource impact area during post-construction assessment. View of restored disturbed wetland topsoil at approximately centerline from the edge of the road.</p>	<p>Description At edge of LOD, view of unimpacted resource area conditions during post-construction assessment. View of undisturbed wetland outside of the LOD post-construction.</p>
<p>09/12/2023 08:36:40 +38.399623,-80.597551 62° NE W-B28 (Dur_TG)</p> 	<p>09/13/2023 10:12:40 +38.399789,-80.597117 229° SW W-B28 (Dur_TG)</p> 
<p>GPS Location See photo above</p>	<p>GPS Location See photo above</p>
<p>Description View of wetland ditch line drilled and prepared for blasting.</p>	<p>Description View of blasting crew preparing explosives for blasting.</p>

Optional Photos		
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GPS Location	See photo above	GPS Location	See photo above
Description	View of water filled ditch and the ditch dewatering equipment set up.	Description	View of the ditch full of ground water at wetland W-B28.
			
GPS Location	See photo above	GPS Location	See photo above
Description	View of the pipe through wetland W-B28.	Description	View of completed ditch excavation through wetland W-B28.
			
GPS Location	See photo above	GPS Location	See photo above
Description	View of wetland backfill activities at wetland W-B28.	Description	View of seeding activities in wetland W-B28.