



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread D	AFE	124300129	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	503		
Environmental Auditor	Scott Wessel	Date/Time	2/8/2024 11:09 AM		
Stream ID	S-A69	Crossing Start Date	2/8/2024	Crossing Completion Date	2/17/2024
Milepost	115.65	Pre-Con Assessment Date	2/2/2024	Post-Con Assessment Date	2/18/2024
Station	6106+37	Bankfull Width (ft.)	6.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Intermittent		
County	Nicholas	303(d) Impairment Listing	No		

Resource Post-Crossing Conditions



1	Were all applicable resource specific crossing conditions satisfied? Time of Year Restrictions (TOYR)? <u> N/A </u> Mussel Relocation? <u> N/A </u>	N/A
2	This question is not applicable in WV.	
3	Which crossing methods were utilized during the stream crossing? (If so select one or more) Dam & Pump <input checked="" type="checkbox"/> Flume <input type="checkbox"/> Cofferdam <input type="checkbox"/> Conventional Bore <input type="checkbox"/> Horizontal Directional Drill (HDD) Bore <input type="checkbox"/>	
4	Was the top 1-foot (12-inches) of streambed substrate segregated and stockpiled separate from trench spoils?	Yes
5	Was excess material not needed for backfill removed and disposed of in an upland area?	Yes
6	Was the top 12-inches of backfill made with clean native stream substrate?	Yes
7	Was the pre-construction survey data utilized during restoration in attempt to re-establish pre-construction contours?	Yes
8	Were any field modifications to the stream implemented by project or regulatory personnel to address potential drainage or bank restoration limitations?	No
9	Were impervious trench breakers/plugs properly installed within 25-feet of top-of-bank to prevent subsurface erosion to or from the resource area?	Yes
10	Was permanent seed and stabilization material (straw or matting) applied to riparian areas and stream banks prior to re-establishing flow to the impact area of the channel?	Yes
11	Was the time of disturbance minimized by conducting resource work continuously to completion?	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	Are bareroot saplings required and/or scheduled to be planted for the dormant season (10/1 - 4/30)?	N/A
14	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
15	Predominant Substrate Type (select one): Bedrock, Boulder (>10"), Cobble (2-10"), Gravel (0.1-2"), Sand (<0.1"), Mud/Silt/Clay	Bedrock, Boulder (>10")	Bedrock, Boulder (>10")
16	Channel Conditions: Rating: 1-Optimal (80-100% stable banks), 2-Sub-optimal (60-80% stable banks), 3-Marginal (40-60% stable banks), 4-Poor (20-40% stable banks), 5-Severe (0-20% stable banks, highly eroded or unvegetated banks)	1	1
17	Riparian Buffer Zone within ROW and ≤50 ft. from Stream Top-of-Bank: Rating: 1-Optimal (60-100% heavy vegetative cover), 2-Sub-optimal (30-60% mixed vegetated coverage), 3-Marginal (<30% vegetative coverage), 4-Poor (Mowed/maintained area or farmland, impervious area, sparsely vegetated coverage, etc.)	1	4

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Biological Conditions Continued					Pre-Con	Post-Con
18	Instream Habitat Conditions: Examples: Varied substrate sizes, varied combination of water velocities & depths, presence of woody/leafy debris, stable substrate with low amount of mobile particles, low embeddedness, shade protection, undercut banks, root mats, Varied combination of water velocities, submerged aquatic vegetation Rating: 1-Optimal (Habitat conditions present in >50% of resource), 2-Suboptimal (Habitat conditions in 30-50% of resource), 3-Marginal (Habitat conditions in 10-30% of resource), 4-Poor (Habitat conditions in 0-10% of resource)			1	3	
19	Channel Alterations: Examples: Straightened channel, non-MVP stream crossings, non-native riprap/rock along banks, concrete/gabions/concrete block, manmade embankments, constrictions w/in channel, livestock or agricultural impacts Rating: 1-Negligible (unaltered/natural stream), 2-Minor (20-40% of resource disrupted by channel alterations), 3-Moderate (40-80% of resource disrupted), 4-Severe (>80% of resource disrupted)			1	1	
Additional Notes						
<p>Due to the close proximity of stream S-A67 to S-A69, both areas were worked on roughly at the same time with efforts switching from one to the other as needed.</p> <p>Dewatering was conducted throughout the crossing on an as needed basis to a structure on the coming in side (CIS) of the crossing.</p> <p>2/8/24 – A pump and dam conveyance system was installed on S-A69 prior to removing the signature boulders from the streambed and banks. The top 12" of substrate from the stream channel and banks were segregated separately and staged in an upland area on the going away side (GAS) of the resource. Solid rock was hit soon after trenching started, and a blasting crew was brought in.</p> <p>2/9/24 – The area between S-A67 and S-A69 required blasting and hammering to complete the excavation of the ditch.</p> <p>2/10/24 to 2/14/24 – Most of the efforts were focused on S-A69 during this time with the finishing of trenching, welding, x-raying, and applying pipe protection.</p> <p>2/15/24 to 2/16/24 – Trench breakers were installed at both S-A67 and S-A69 crossings, with the trench breakers for S-A69 located at station number 6106+16 and 6106+69. The padding of the pipe and backfilling of the trench started shortly afterwards for both S-A67 and S-A69 areas.</p> <p>2/17/24 – The final topsoil adjustments were made to the stream banks and the 10' buffer zone prior to restoring the top 12" of substrate material for S-A69. Survey verified that the substrate material between the high water marks of the stream channels was restored to pre-construction elevations and contours. The proper seed mix for the buffer zones was applied, and all appropriate erosion control devices are in place and the 50' buffers on either side of the stream have been temporarily restored due to winter weather conditions. Permanent restoration of the 50' buffer will be conducted during the spring when soil conditions and weather are more favorable. The pump and dam was removed, and stream flow was restored.</p>						
<p>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.</p>						
Name		Signature		Company		
Scott Wessel				SWCA		
				Date		
				2/18/2024		

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Required Photos					
					
GPS Location		GPS Location			
Description		Description			
					
GPS Location		GPS Location			
Description		Description			
					
GPS Location		GPS Location			
Description		Description			

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Optional Photos					
<p>02/10/2024 13:44:34 +38.317061,-80.671662 103° E S-A69 (Dur-SW)</p> 		<p>02/15/2024 16:38:22 +38.317317,-80.671511 164° S S-A69 (Dur-SW)</p> 			
<p>GPS Location See coordinates in above photo.</p>		<p>GPS Location See coordinates in above photo.</p>			
<p>Description Contractor lowering in pipe section for resource crossing.</p>		<p>Description Trench breaker being constructed on the GAS of resource.</p>			
<p>02/17/2024 14:56:56 +38.317163,-80.671484 190° S S-A69 (Dur-SW)</p> 		<p>02/17/2024 15:30:33 +38.317560,-80.671567 159° S S-A69 (Dur-SW)</p> 			
<p>GPS Location See coordinates in above photo.</p>		<p>GPS Location See coordinates in above photo.</p>			
<p>Description Contractor working on re-contouring stream and buffer zone in preparation for topsoil.</p>		<p>Description Stream substrate material being put back once elevations were verified by survey.</p>			
<p>02/18/2024 11:56:33 +38.317271,-80.671431 261° W S-A69 (Post-SW)</p> 		<p>02/18/2024 11:56:37 +38.317271,-80.671431 185° S S-A69 (Post-SW)</p> 			
<p>GPS Location See coordinates in above photo.</p>		<p>GPS Location See coordinates in above photo.</p>			
<p>Description Restored area on the CIS of resource post-construction.</p>		<p>Description Restored area on the GAS of resource post-construction.</p>			