



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread D	AFE	124300132	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	504		
Environmental Auditor	Gary Cruz	Date/Time	2/17/2024 3:45 PM		
Stream ID	S-I31	Crossing Start Date	2/12/2024	Crossing Completion Date	2/17/2024
Milepost	128.28	Pre-Con Assessment Date	2/7/2024	Post-Con Assessment Date	2/17/2024
Station	6773+05	Bankfull Width (ft.)	2.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Ephemeral		
County	Nicholas	303(d) Impairment Listing	No		

Resource Post-Crossing Conditions

1	Were all applicable resource specific crossing conditions satisfied?	N/A
	Time of Year Restrictions (TOYR)? <u> N/A </u> Mussel Relocation? <u> N/A </u>	
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 checked="" 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	Mud/Silt/Clay	Mud/Silt/Clay
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	3

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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	2	
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	2	
Additional Notes						
<p>2/12/2024 – The stream had little to no flow at the time of construction. A flume/pump and dam conveyance system were established prior to the removal of the top 12” of substrate, which was stockpiled in super sacks. The ditch line was excavated through the stream and upland areas on each side of the feature.</p> <p>2/13/2024 – The stream section of pipe was lowered-in and the tie-in weld on the going away side (GAS) of the feature was started.</p> <p>2/14/2024 - Welds and x-ray on the GAS of the stream was completed.</p> <p>2/15/2024 - The tie-in weld on the coming in side (CIS) of the stream feature was started, while the coating for the weld on the GAS of the stream was completed.</p> <p>2/16/2024 - The tie-in weld on the CIS of the stream feature was complete, x-rayed and coated. Bentonite trench breakers were installed on either side of the stream crossing at station number 6772+63 & 6773+36. Padding of the pipe and backfilling of the trench through the stream and upland areas commenced.</p> <p>2/17/2024 – Once backfilling of the trench was completed, the top 12” of stream substrate was restored and all elevations and contours were verified by civil survey to preconstruction specifications. Erosion control devices were installed on the boundaries of the stream and the proper seed mix was applied to the disturbed areas. The pump and dam conveyance system was removed, but no flow was observed from the stream at the time of completion.</p> <p>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.</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		
Gary Cruz				SWCA		
				Date		
				2/17/2024		

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Required Photos

			
GPS Location	See photo above	GPS Location	See photo above
Description	Downstream view of permitted impact area during pre-construction assessment.	Description	Downstream view of unimpacted area during pre-construction assessment.
			
GPS Location	See photo above	GPS Location	See photo above
Description	Downstream view of permitted impact area during post-construction assessment.	Description	Downstream view of unimpacted area during post-construction assessment.
			
GPS Location	See photo above	GPS Location	See photo above
Description	Upstream view of permitted impact area during pre-construction assessment.	Description	Removing the top 12" of stream topsoil.

Optional Photos

			
GPS Location	See photo above	GPS Location	See photo above
Description	Excavated stream section of the ditch.	Description	Stream section of pipe lowered into the ditch.
			
GPS Location	See photo above	GPS Location	See photo above
Description	Impervious trench breakers have been installed.	Description	Contractor padding the stream section of the ditch.
			
GPS Location	See photo above	GPS Location	See photo above
Description	Replacing the stream topsoil.	Description	All elevations and contours being verified by civil survey to preconstruction specifications.