



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread D	AFE	124300132	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	496		
Environmental Auditor	Kyle Gillow	Date/Time	2/2/2024 9:10 AM		
Stream ID	S-I47	Crossing Start Date	2/2/2024	Crossing Completion Date	2/6/2024
Milepost	118.30	Pre-Con Assessment Date	1/31/2024	Post-Con Assessment Date	2/7/2024
Station	6246+36	Bankfull Width (ft.)	2.0	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?	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	1	
Additional Notes						
<p>2/2/24 - The top 12" of soil between the high water marks was placed in super sacks, and stockpiled just upstream. With minimal flow in the stream, a flume/dam and pump around conveyance system were setup and used throughout the crossing on an as needed basis. After excavation was complete the trench was lined with sandbags prior to lowering in and making the first tie-in welds on the going away side (GAS) of S-I47.</p> <p>2/3/24 – The welds on the GAS of the stream were x-rayed and coated while welding operations were conducted on the coming in side(CIS) of S-I47. By the end of the day, both trench breakers were installed on either side of S-I47 and the CIS welds were x-rayed and coated prior to the beginning of padding and backfilling through the stream.</p> <p>2/4/24 - No work was conducted on Sunday.</p> <p>2/5/24 – Backfilling continued through the feature in preparation for final grade. The environmental crew began installing the super silt fence at the 10' buffers on both the CIS and GAS of the feature.</p> <p>2/6/24 – The top 12" of the stream substrate was restored and all elevations and contours were verified by civil survey to pre-construction specifications. The environmental crew finished seeding and installing curlex inside the 10" buffer zones on both the coming in and going away sides of the feature. The dam and pump around were removed with the feature continuing to have minimal flow.</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		
Kyle Gillow				SWCA		
				Date		
				2/7/2024		

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Required Photos

			
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Downstream view of permitted impact area during pre-construction assessment.	Description	Downstream view of unimpacted area during pre-construction assessment.
			
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Downstream view of permitted impact area during post-construction assessment.	Description	Downstream view of unimpacted area during post-construction assessment.
			
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Crew constructing dam for pump around.	Description	Crew stripping top 12" of stream substrate.

Optional Photos

GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Crew bagging stream substrate to be segregated and stored up ROW from feature.	Description	Crew trenching through feature.
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Crew lowering section through feature.	Description	Crew making the tie in weld on the coming in side of the feature.
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Crew backfilling feature inside of the trench breakers.	Description	Crew installing the top 12" of stream substrate back in between the ordinary high water marks.