



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread C	AFE	124300131	Spread	H-600 Pipeline Spread C
Contractor	Precision	Report #	33		
Environmental Auditor	Jeffrey Arbogast	Date/Time	8/5/2023 8:50 AM		
Stream ID	S-H123N	Crossing Start Date	8/4/2023	Crossing Completion Date	8/10/2023
Milepost	74.12	Pre-Con Assessment Date	8/1/2023	Post-Con Assessment Date	8/10/2023
Station	3913+58	Bankfull Width (ft.)	2.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Perennial		
County	Braxton	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?	N/A
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?	See Below
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?	See Below
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	Cobble (2-10")	Cobble (2-10")
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	2
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>1. All stream work was conducted outside of the time of year restriction (TOYR), from April 1st to June 30th for this stream.</p> <p>3. A dam and pump technique was implemented during construction while work was being conducted in the stream. A flume pipe was utilized while construction took place outside of the streams 10' buffer zone.</p> <p>9. Trench breakers were properly installed at 50' from the top of the stream banks on both the coming in and going away sides of the crossing. Placement outside of the 25' zone was approved through MVP. Trench breaker position was confirmed by survey.</p> <p>10. The riparian herbaceous seed mix was not available to be applied within the 10' stream buffer at the time of the crossings' completion. Annual rye was used until the proper permanent seed mix can be obtained and over seeded. (See MVP Restoration and Rehabilitation Plan Section 2.1) The proper permanent seed mix was applied the following morning.</p> <p>17. The riparian buffer zone was almost entirely stripped of vegetation between 10' and 50' from the stream during construction. This area is slated to be seeded and stabilized. The travel lane and timber mat bridge crossing will remain in place and removed after final reclamation. The area between the ordinary high water mark and within 10' of the stream has been stabilized with erosion control blanket and protected with silt fencing.</p> <p>Photo Log: Post construction photo showing the downstream view of the unimpacted area during post construction assessment shows some discoloration below intersection of stream S-H123 and S-H124 due to overnight rain event.</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		
Jeffrey Arbogast				SWCA		
				Date		
				8/10/2023		

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Required Photos

<p>8/4/23, 8:21 AM +38.761245, -80.514958 194° S S-H123N (Pre-JA)f</p> 		<p>8/4/23, 8:23 AM +38.761091, -80.514883 158° S S-H123N (Pre-JA)f</p> 	
GPS Location	See Photo Caption	GPS Location	See Photo Caption
Description	Downstream view of permitted impact area during pre-construction assessment.	Description	Downstream view of unimpacted area during pre-construction assessment.
<p>8/10/23, 7:43 AM +38.761312, -80.514888 185° S S-H123N (Post-JA)f</p> 		<p>8/10/23, 7:40 AM +38.761145, -80.514899 160° S S-H123N (Post-JA)f</p> 	
GPS Location	See Photo Caption	GPS Location	See Photo Caption
Description	Downstream view of permitted impact area during post-construction assessment.	Description	Downstream view of unimpacted area during post-construction assessment.
<p>8/4/23, 8:23 AM +38.761186, -80.514895 119° SE S-H123N (Pre-JA)f</p> 		<p>8/4/23, 8:20 AM +38.761171, -80.514881 263° W S-H123N (Pre-JA)f</p> 	
GPS Location	See Photo Caption	GPS Location	See Photo Caption
Description	Crossing from the coming in side pre-construction	Description	Crossing from the going away side pre-construction

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Optional Photos

			
GPS Location	See Photo Caption	GPS Location	See Photo Caption
Description	Crossing from the coming in side post-construction	Description	Crossing from the going away side post-construction
			
GPS Location	See Photo Caption	GPS Location	See Photo Caption
Description	Top 12" of stream substrate being carefully excavated	Description	Trench breaker partially built on coming in side
			
GPS Location	See Photo Caption	GPS Location	See Photo Caption
Description	Material from under the stream substrate being returned to stream crossing area	Description	Survey is shooting in stream channel and elevation. Crewmen are marking the outline and making adjustments where necessary.