



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread A	AFE	124300129	Spread	H-600 Pipeline Spread A
Contractor	Precision	Report #	282		
Environmental Auditor	Samantha Felix	Date/Time	10/9/2023 4:00 PM		
Stream ID	S-A11a Braid 2	Crossing Start Date	10/4/2023	Crossing Completion Date	10/9/2023
Milepost	21.77	Pre-Con Assessment Date	9/30/2023	Post-Con Assessment Date	10/9/2023
Station	1149+20	Bankfull Width (ft.)	6.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Intermittent		
County	Harrison	303(d) Impairment Listing	Iron, Fecal		

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 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	5
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	4	
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>10/4/23 - Commenced crossing of waterbody after installation of dam and pump, 12" of waterbody substrate was segregated and stockpiled in a designated upland area separate from the other spoil. Trench excavation was completed near the end of the day. Number 16 was rated a "sub-optimal" rating due to heavily eroded stream banks. -S.Felix</p> <p>10/5/23 - The pipe was placed in the trench and was welded. -S.Felix</p> <p>10/6/23 - The pipe was x-rayed and coated, and then the crew started to fill the trench with subsoil. -S.Felix</p> <p>10/7/23 - The trench was backfilled with subsoil. After the subsoil was properly compacted, the 12" of segregated waterbody substrate was placed back into the stream bank to match pre-construction contours. - S.Felix</p> <p>10/8/23 - Crew monitored the dam and pump, no construction activity. - S.Felix</p> <p>10/9/23 - The crew installed erosion and sediment controls around S-A11a Braid 2 and removed the dam and pump. -S.Felix</p> <p>Numbers 16, 17, and 18 were rated "poor", "severe", and "poor" (respectively) due to lack of vegetation in the disturbed permitted impact area following the completion of the crossing and restoration efforts. The S-A11a Braid 2 stream bank and stream bed substrates have been properly stabilized and the disturbed area 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.</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		
Samantha Felix				ERM		
				Date		
				10/9/2023		

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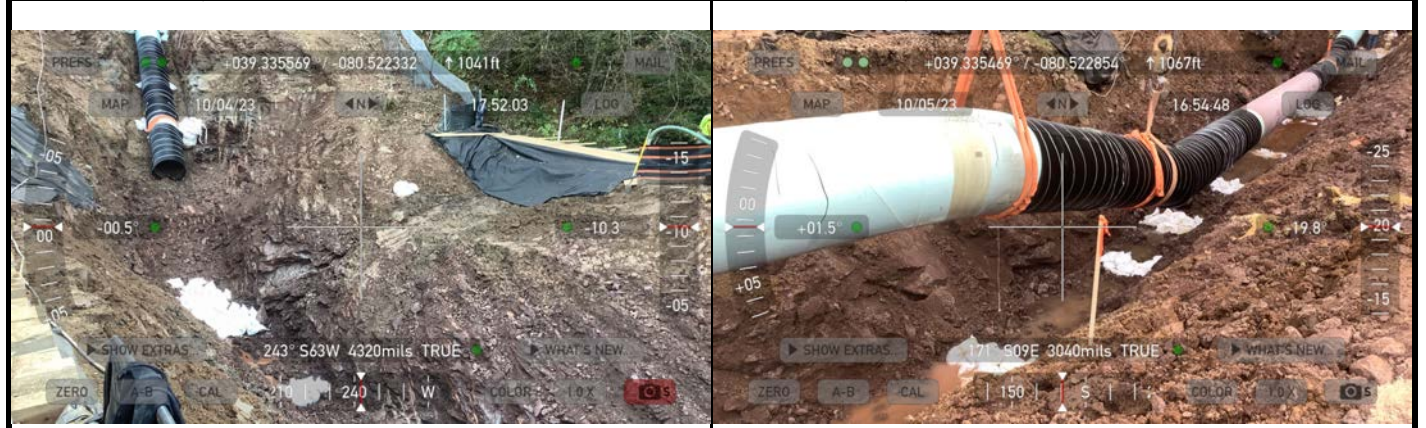
Required Photos



GPS Location	See above.	GPS Location	See 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 above.	GPS Location	See 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 above.	GPS Location	See above.
Description	In the process of excavating the pit	Description	The pipe was lowered into the trench and welded.

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Optional Photos



GPS Location	See above.	GPS Location	See above.
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Description	Trench being filled with substrate.	Description	Adding waterbody substrate.
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Insert image here	Insert image here
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GPS Location		GPS Location	
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Description		Description	
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Insert image here	Insert image here
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GPS Location		GPS Location	
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