



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread B	AFE	124300130	Spread	H-600 Pipeline Spread B
Contractor	Precision	Report #	18		
Environmental Auditor	Devin Jen	Date/Time	8/3/2023 8:48 AM		
Stream ID	S-H153	Crossing Start Date	8/3/2023	Crossing Completion Date	8/6/2023
Milepost	59.40	Pre-Con Assessment Date	8/3/2023	Post-Con Assessment Date	8/6/2023
Station	3145+31	Bankfull Width (ft.)	15.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Perennial		
County	Lewis	303(d) Impairment Listing	No		

Resource Post-Crossing Conditions

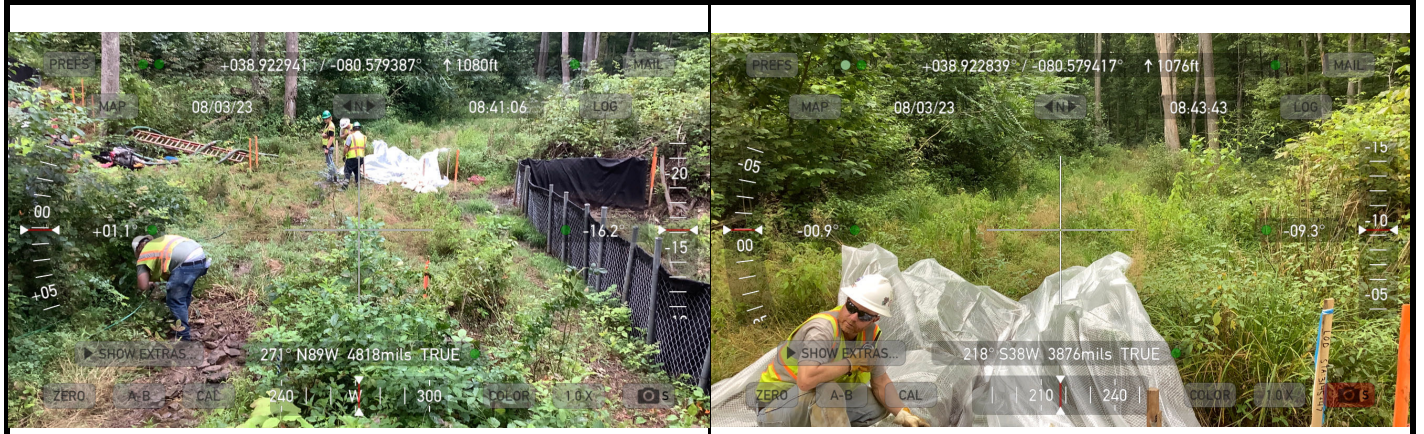
1	Were all applicable resource specific crossing conditions satisfied? Time of Year Restrictions (TOYR)? <u>N/A</u> Mussel Relocation? <u>N/A</u>	N/A
2	This question is not applicable in WV.	
3	Which crossing methods were utilized during the stream crossing? (If so select one or more) Dam & Pump <input 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

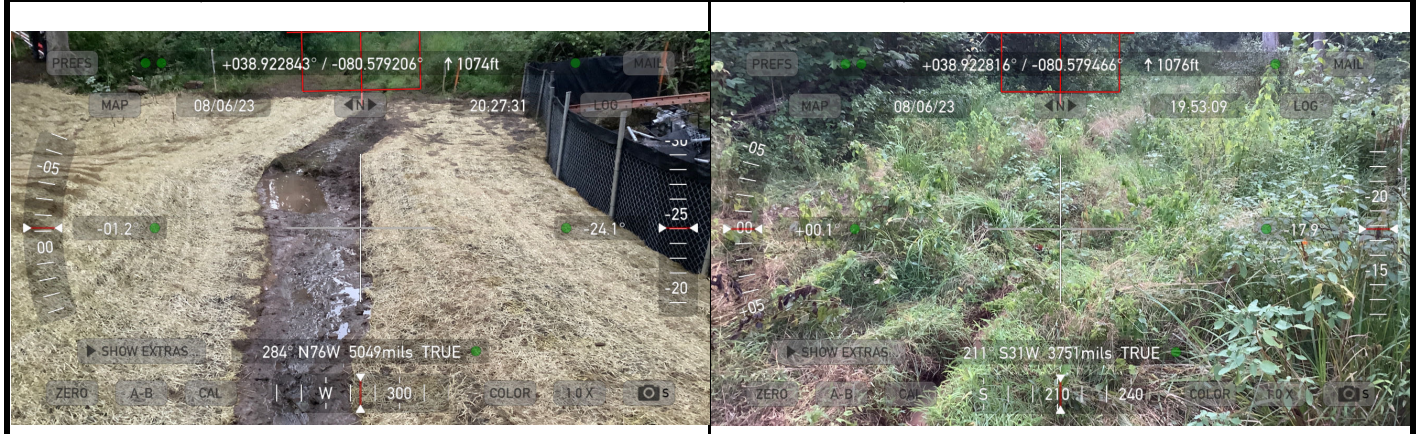
		Pre-Con	Post-Con
15	Predominant Substrate Type (select one): Bedrock, Boulder (>10"), Cobble (2-10"), Gravel (0.1-2"), Sand (<0.1"), Mud/Silt/Clay	Cobble (2-10")	Cobble (2-10")
16	Channel Conditions: Rating: 1-Optimal (80-100% stable banks), 2-Sub-optimal (60-80% stable banks), 3-Marginal (40-60% stable banks), 4-Poor (20-40% stable banks), 5-Severe (0-20% stable banks, highly eroded or unvegetated banks)	1	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)			3	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>8/3/2023 Pre-construction assessment Weather was 70 degrees Fahrenheit and overcast at time of pre-construction assessment. Stream flows east to west and is an unnamed tributary of Bens Run. Narrowed stream channel with heavily vegetated banks. Cobble substrate throughout. Crew began trench excavation.</p> <p>8/4/2023 Weather was 85 degrees Fahrenheit and partly cloudy throughout most of the day. The crew successfully installed one segment of pipe and nearly completed the installation of the stream crossing segment of pipe. Began to repair slip on the ROW towards the end of the day.</p> <p>8/5/2023 Weather was 89 degrees Fahrenheit and partly cloudy throughout most of the day. Crew successfully tied in in segment of piping that goes through the stream crossing and added pea gravel to the bottom of the stream crossing.</p> <p>8/6/2023 Weather was 85 degrees Fahrenheit and partly cloudy. Stream has been restored to pre-construction contours. Conditions 16 and 17 were given a rating of 5 and 4 respectively due to the lack of vegetation in disturbed permitted impact area following completion of the crossing and restoration. The streambanks have been properly stabilized and the disturbed area have been seeded with the appropriate permanent seed mix and/or planted with bare-root saplings (as required) 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		
Devin Jen				ERM		
				Date		
				8/8/2023		

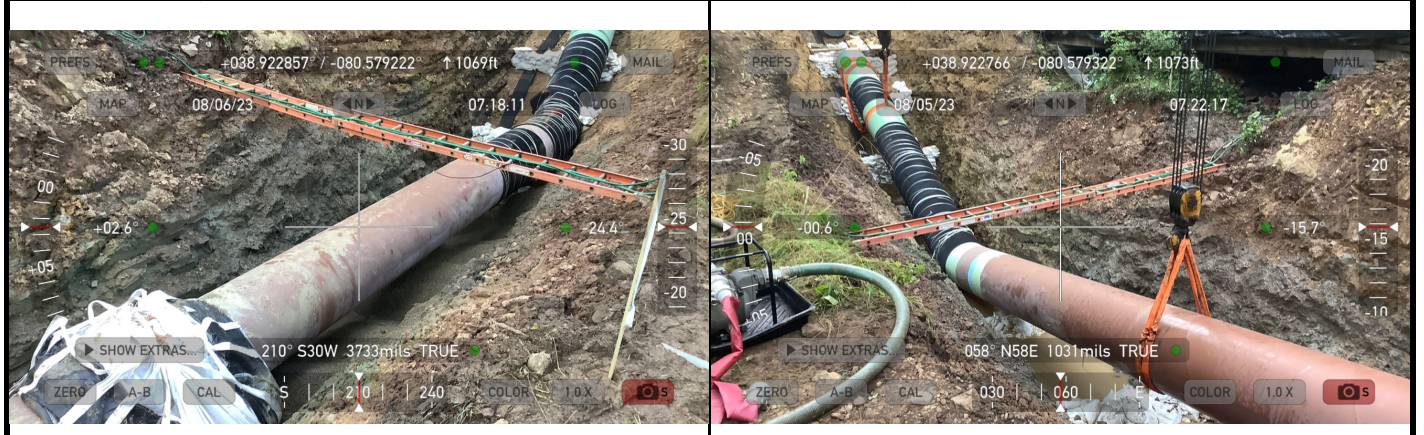
Required Photos



GPS Location See photograph.	GPS Location See photograph.
Description Downstream view of permitted impact area during pre-construction assessment.	Description Downstream view of unimpacted area during pre-construction assessment.



GPS Location See photograph.	GPS Location See photograph.
Description Downstream view of permitted impact area during post-construction assessment.	Description Downstream view of unimpacted area during post-construction assessment.



GPS Location See photograph.	GPS Location See photograph.
Description Impacted area at start of work day 8/6/2023.	Description Impacted area at start of work day 8/5/2023.

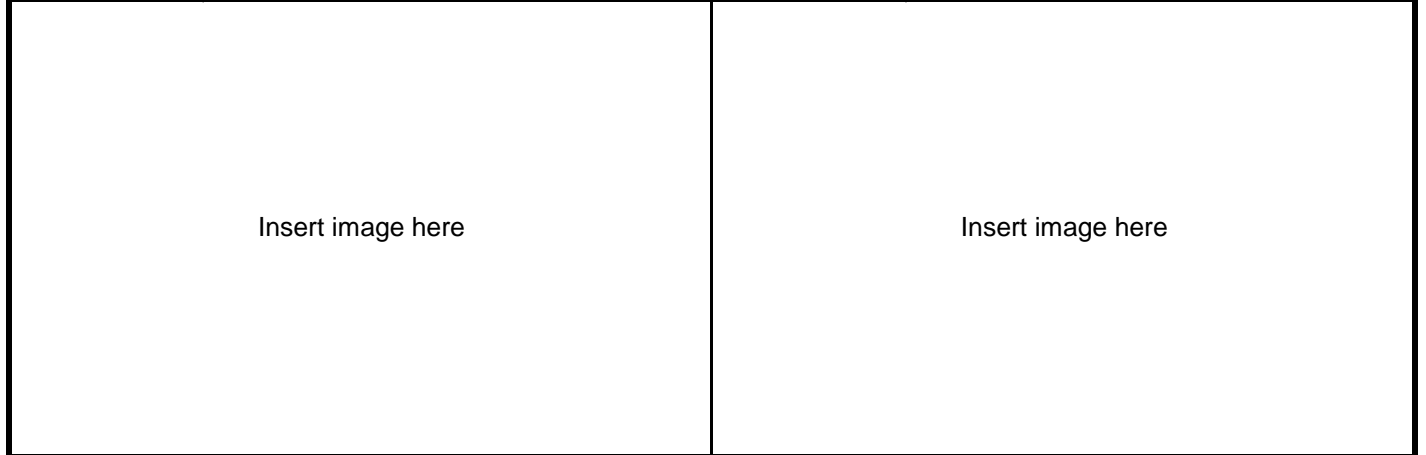
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Optional Photos



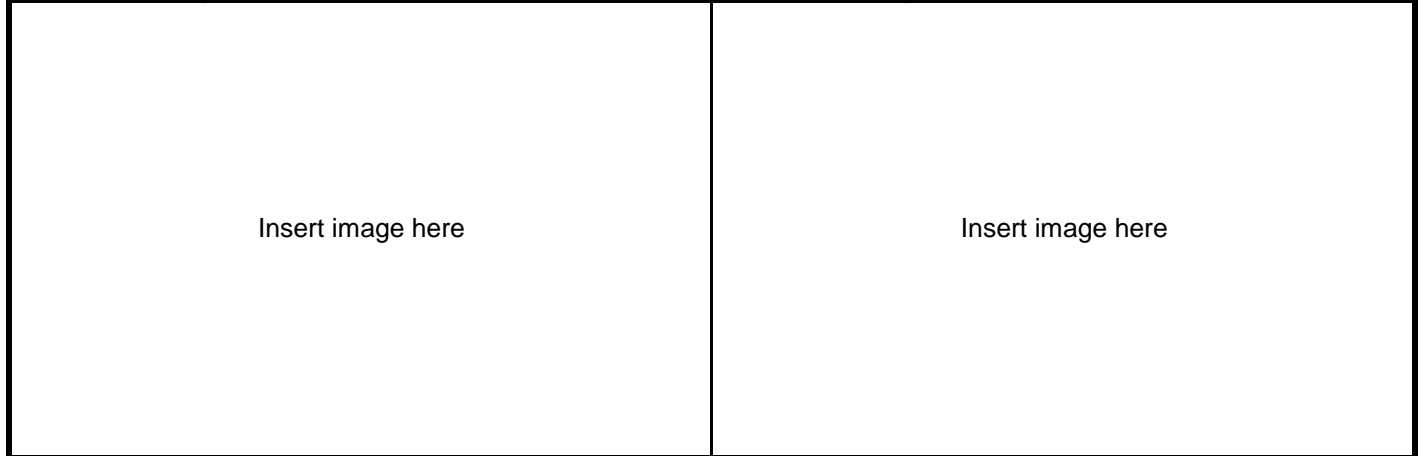
GPS Location	See photograph.	GPS Location	
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Description	Impacted area at start of work day on 8/4/2023.	Description	
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GPS Location		GPS Location	
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