



Stream Biological Conditions EA Report

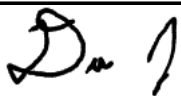
Project Name	H-600 Pipeline Spread A	AFE	124300129	Spread	H-600 Pipeline Spread A
Contractor	Precision	Report #	260		
Environmental Auditor	Devin Jen	Date/Time	9/25/2023 1:15 PM		
Stream ID	S-K67	Crossing Start Date	9/25/2023	Crossing Completion Date	9/30/2023
Milepost	34.28	Pre-Con Assessment Date	9/25/2023	Post-Con Assessment Date	9/30/2023
Station	1809+87	Bankfull Width (ft.)	10.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Intermittent		
County	Doddridge	303(d) Impairment Listing	N/A		

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

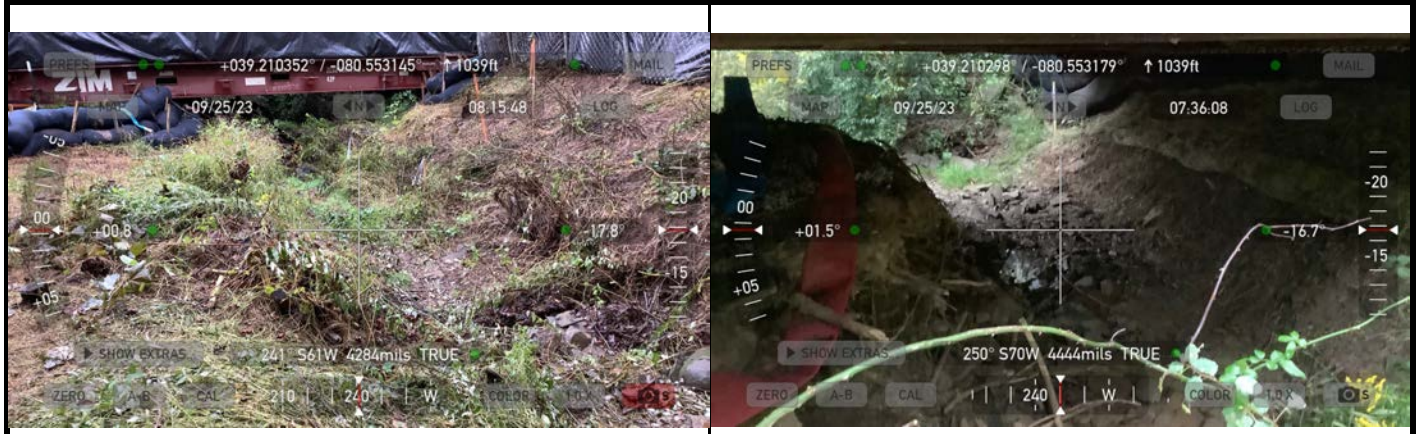
Biological Conditions

		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	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)	2	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>9/25/2023 The crew removed the top 12 inches of the stream substrate as well as the streambank topsoil. A dam and pump were placed to ensure that the flow would not be impeded. The crew began excavation of the trench.</p> <p>9/26/2023 The crew continued to excavate the trench, added sandbags, and positioned the pipe in the area of the stream crossing.</p> <p>9/27/2023 The crew added more sandbags and repositioned the pipe. The welders successfully welded the section in the area of the stream crossing.</p> <p>9/28/2023 The crew added pea gravel, built the trench breakers, added AquaBlok, and began backfilling in the area of the stream crossing.</p> <p>9/29/2023 The crew continued to backfill in the area of the stream crossing.</p> <p>9/30/2023 The stream substrate was replaced, and the stream was 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 the disturbed permitted impact area following the completion of the crossing and restoration. The disturbed area has 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>						
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.						
Name		Signature		Company		
Devin Jen				ERM		
				Date		
				10/3/2023		

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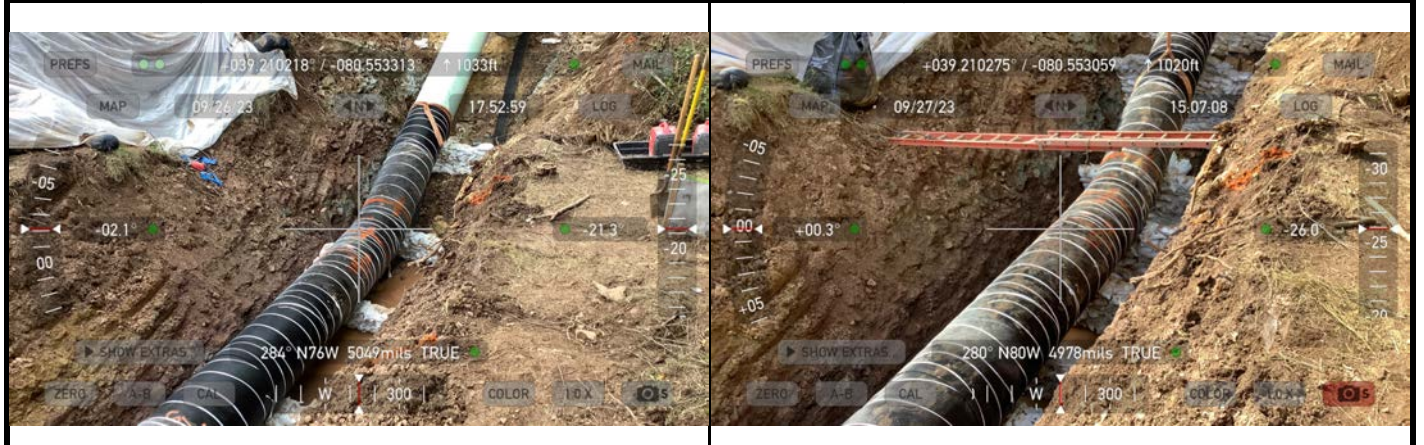
Required Photos



GPS Location	See photo.	GPS Location	See 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 photo.	GPS Location	See 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 photo.	GPS Location	See photo.
Description	The photo shows the progress of the construction on 9/26/2023.	Description	The photo shows the progress of the construction on 9/27/2023.

Optional Photos



GPS Location See photo.	GPS Location See photo.
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Description The photo shows the progress of the construction on 9/28/2023.	Description The photo shows the progress of the construction on 9/29/2023.
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Insert image here	Insert image here
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GPS Location	GPS Location
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