



Stream Biological Conditions EA Report

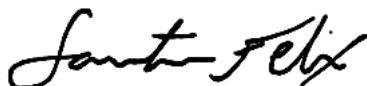
Project Name	H-600 Pipeline Spread B	AFE	124300130	Spread	H-600 Pipeline Spread B
Contractor	Precision	Report #	332		
Environmental Auditor	Samantha Felix	Date/Time	10/17/2023 10:30 AM		
Stream ID	S-J44	Crossing Start Date	10/24/2023	Crossing Completion Date	11/11/2023
Milepost	21.77	Pre-Con Assessment Date	10/17/2023	Post-Con Assessment Date	11/14/2023
Station	1149+20	Bankfull Width (ft.)	5.0	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)?	No
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")	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	4	
Additional Notes						
<p>10/17/23 - Attended the pre-construction meeting for S-J44 and conducted the pre-construction assessment . Took pre-construction photos of the site. -S.Felix</p> <p>10/24/23 - The crew removed the stream bed substrate and stripped the topsoil from the banks following installation of the dam and pump. The 12" of stream substrate was segregated and stockpiled in a designated upland area separate from the other soil. Trench excavation was completed by the end of the day. -S.Felix</p> <p>10/25-11/2 - The crew excavated the subsoil and rock bed material. -S.Felix</p> <p>11/3/23 - The crew positioned the pipe and prepared to weld. -S.Felix</p> <p>11/04/23 - Crew continued to position the pipe in preparation for welding the final two joints in this section. - Mathew Huber</p> <p>11/05-11/06 - The final two joints were welded into the pipeline. - Mathew Huber</p> <p>11/07-11/08 - The crew backfilled while periodically raising the pipeline and adding sandbags to achieve the appropriate height for the pipeline, as well as building trench breakers. - Mathew Huber</p> <p>11/09/23 - The crew continued to backfill and brought the stream back to its original contours with the subsoil. - Mathew Huber</p> <p>11/10/23 - No work occurred due to unsafe working conditions caused by the rain. - Mathew Huber</p> <p>11/11/23 - The contractor restored the substrate using pre-construction survey data to ensure proper restoration of contours, installed stabilization measures and appropriate seed mix, and removed the dam and pump to restore flow to the stream. - R. Ellis</p> <p>Post Construction Assessment Numbers 16, 17, and 18 were rated "severe", "poor", and "severe" (respectively due to the lack of vegetation in the disturbed permitted impact area following the completion of the crossing and restoration efforts. The SJ44 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		
				11/14/2023		

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.



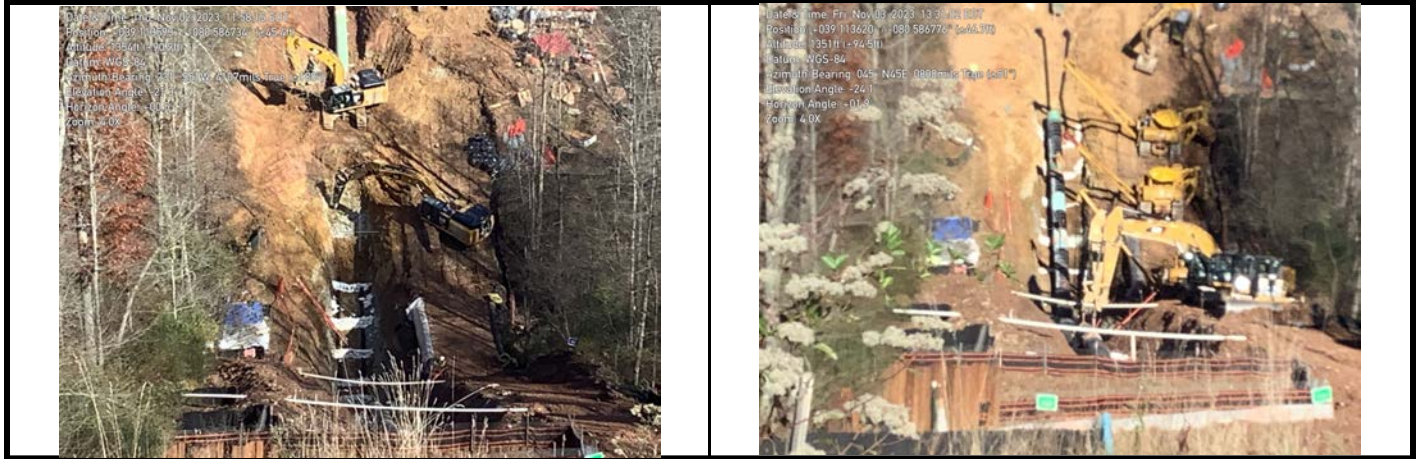
GPS Location	See above	GPS Location	See above
Description	Downstream view of permitted impact area during post-construction assessment.	Description	Downstream view of unimpacted area during post-construction assessment.



GPS Location	See above.	GPS Location	See above.
Description	Removing streambed material.	Description	The crew started drilling rock.

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Optional Photos



GPS Location	See above.	GPS Location	See above.
Description	The crew finishing up drilling the rock.	Description	The crew setting the pipe in the ground.



GPS Location	See above	GPS Location	See above
Description	Initial backfilling of stream crossing.	Description	Backfilling progress in stream crossing by 11/09/2023.



GPS Location	See above	GPS Location	See above
Description	Downstream discharge for dam and pump on 11/11/2023.	Description	Restored crossing on 11/14/2023.