



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread D	AFE	124300132	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	216		
Environmental Auditor	Alex Miller	Date/Time	9/6/2023 7:20 AM		
Stream ID	S-IJ57	Crossing Start Date	8/15/2023	Crossing Completion Date	8/27/2023
Milepost	111.59	Pre-Con Assessment Date	8/15/2023	Post-Con Assessment Date	8/27/2023
Station	5891+95	Bankfull Width (ft.)	1.3	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Perennial		
County	Nicholas	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?	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	3
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	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	1	
Additional Notes						
<p>A 24" flume pipe was utilized for overnight flow throughout the crossing of S-IJ57 and dewatering of the trench was conducted as needed throughout the day.</p> <p>08/15/2023 - Prior to construction entering the 10ft buffer of W-IJ51, stream-crossing S-IJ57 was dammed with sandbags and a 3-inch electric pump around was installed. The top 12" of stream substrate for S-IJ57 was also excavated and placed in super sacks and stored next to wetland topsoil pile. Excavation of the trench commenced.</p> <p>08/16/2023 - A rain event delayed construction in the morning, and dewatering of the trench was required. The coming in-side CIS of the trench excavation was completed, and a segment of pipe was lowered in later in the day. Welders started preparing the pipe to start welding the following day. The contractor started excavating the going away side (GAS) of the trench.</p> <p>08/17/2023 - Welding commenced in the morning on the coming inside and continued throughout the afternoon. W-IJ51 and S-IJ57 underwent a DEP inspection in the early afternoon; all portions of S-IJ57 were up to code.</p> <p>08/18/2023 - The contractor finished excavating of the trench on the GAS of the crossing and a segment of pipe was lowered in for welding to commence.</p> <p>08/19/2023 - More excavation was needed on the GAS, which continued throughout the day. Welding operations continued throughout the day on the GAS.</p> <p>08/21/2023 - Pipe binding engineers were onsite to reconfigure a segmented pipe for the GAS. Three welds were completed on the GAS of the pipe by the end of the day.</p> <p>08/22/2023 - Alex Miller took over crossing as EA. The welders had to perform a cutout and welding continued throughout the day.</p> <p>08/23/2023 - Welding operations continued throughout the day.</p> <p>08/24/2023 - Welding, X-ray, and coating of the pipe were completed today. Back filling of the trench started with padding the pipe using and sifting bucket on the excavator.</p> <p>08/25/2023 -No work was done on the crossing due to a rain out event.</p> <p>08/26/2023 -The contractor continued to pad the pipe using a sifting bucket on an excavator. Trench breakers were installed within 25ft. of the wetland boundaries. Subsoil was replaced between the high marks to within 12" from surface.</p> <p>08/27/23 - The 24" flume was removed and the pump around was re-established prior to replacing the stream (S-IJ57) and wetland (W-IJ51) topsoil to the surveyor specifications. The stream channel was manually dug with shovels to surveys specifications. Once the surveyor verified all elevations, the pump and dam were removed, and stream flow was restored.</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		
Alex Miller				SWCA		
				Date		
				8/27/2023		

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Required Photos

<p>8/15/23 7:57 AM +38.3523N -80.6363W 129° SE S-IJ57 (Pre_CC)</p> 		<p>8/15/23 8:02 AM 125° SE S-IJ51 (Pre_CC)</p> 	
GPS Location	See Photo	GPS Location	38.3519, -80.6360
Description	Downstream view of permitted impact area during pre-construction assessment. Downstream view of S-IJ57 from crossing bridge.	Description	Downstream view of unimpacted area during pre-construction assessment. Downstream view of S-IJ57 (obscured by vegetation) from edge of LOD.
<p>8/27/23 5:09 PM +38.3523N -80.6363W 147° SE S-IJ57 (Post-AMf)</p> 		<p>8/29/23 1:08 PM +38.3523N -80.6363W 154° SE S-IJ57 (Post-AM)</p> 	
GPS Location	See Photo	GPS Location	See photo
Description	Downstream view of permitted impact area during post-construction assessment. Downstream view of S-IJ57 post construction, taken from crossing bridge.	Description	Downstream view of unimpacted area during post-construction assessment. Downstream view of S-IJ57 (obscured by vegetation) taken from edge of LOD.
<p>8/24/23 4:00 PM +38.3523N -80.6365W 77° E S-IJ57 (Dur-AM)</p> 		<p>8/26/23 5:56 PM +38.3521N -80.6367W 131° SE S-IJ57 (Dur-AM)</p> 	
GPS Location	See Photo	GPS Location	See Photo
Description	Pipe on 8/24 after welding finished. Trench was being pumped to prepare for padding and stream was running through flume pipe.	Description	Stream and wetland area after grading but prior to replacement of wetland/stream substrate.

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Optional Photos					
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Insert image here			Insert image here		
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GPS Location		GPS Location	
Description		Description	

Insert image here			Insert image here		
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GPS Location		GPS Location	
Description		Description	

Insert image here			Insert image here		
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GPS Location		GPS Location	
Description		Description	