



Stream Biological Conditions EA Report

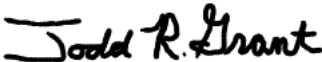
Project Name	H-600 Pipeline Spread D	AFE	124300132	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	489		
Environmental Auditor	Todd Grant	Date/Time	1/30/2024 6:19 PM		
Stream ID	S-I37	Crossing Start Date	1/30/2024	Crossing Completion Date	2/2/2024
Milepost	125.67	Pre-Con Assessment Date	1/25/2024	Post-Con Assessment Date	2/7/2024
Station	6635+55	Bankfull Width (ft.)	6.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Ephemeral		
County	Nicholas	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	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	1
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	1	
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	2	
Additional Notes						
<p>1-30-2024 Stream S-I37 at the point of intersect prior to construction comprised of a subterranean nature. Root mats from old tree stumps supported the ground surface with random holes where the subsurface flow could be observed, and elevations of the thalweg were recorded by civil survey. The stream only flows at the ground surface during high flow events. The visible portion of the stream is located from the pipe centerline to approximately 10ft upstream, in three naturally bored out holes that the stream has created prior to construction. Prior to entering S-I37, a pump around conveyance system was installed and utilized throughout the crossing on an as needed basis.</p> <p>1-31-2024 The 12 inches of topsoil and streambed substrate were segregated and labeled in super sacks. Ditch excavation was completed while pumps and dewatering structures were used to dewater the ditch as needed. The pipe section was lowered into the ditch and welding was started on the going away side (GAS).</p> <p>2-1-2024 Welding, x-ray, and coating activities were completed on the GAS and trench breaker construction was started.</p> <p>2-2-2024 Trench breaker construction was completed at station number 6625+37 and 6625+70 prior to padding the pipe and backfilling the ditch. The streams 12" of substrate was replace prior to reconstructing the topsoil that covered the stream and the three holes features of the stream channel. The elevations and the stream bank contours were verified by survey and using preconstruction photos. The dam/pump around was removed and natural flow was restored. The stream was checked the following day and subterranean flow was re-established.</p> <p>Biological condition 17 was rated poor due to a lack of vegetation. Biological condition 19 was rated minor due to stream banks being reconstructed during restoration. Stream S-I37 banks and stream substrate was properly stabilized and disturbed areas have 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>						
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		
Todd Grant				SWCA		
				Date		
				2/7/2024		

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Required Photos

<p>1/25/24 11:27:43 38.1967N 80.7189W 216° SW S-I37 (Pre_RG)</p> 		<p>1/25/24 11:33:31 38.1966N 80.7189W 207° SW S-I37 (Pre_RG)</p> 	
GPS Location	See top left corner for GPS location	GPS Location	See top left corner for GPS location
Description	Downstream view of permitted impact area during pre-construction assessment.	Description	Downstream view of unimpacted area during pre-construction assessment.
<p>02/07/2024 08:36:14 +38.196576,-80.718329 224° SW S-I37 (Pos_TG)</p> 		<p>02/07/2024 08:36:43 +38.196576,-80.718329 207° SW S-I37 (Pos_TG)</p> 	
GPS Location	See top left corner for GPS location	GPS Location	See top left corner for GPS location
Description	Downstream view of permitted impact area during post-construction assessment.	Description	Downstream view of unimpacted area during post-construction assessment.
<p>01/31/2024 08:17:54 +38.196660,-80.718794 253° W S-I37 (Dur_TG)</p> 		<p>01/31/2024 08:24:26 +38.196551,-80.718885 252° W S-I37 (Dur_TG)</p> 	
GPS Location	See top left corner for GPS location	GPS Location	See top left corner for GPS location
Description	View of topsoil being excavated.	Description	View of ditch line after removal of topsoil.

Optional Photos		
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GPS Location See top left corner for GPS location	GPS Location See top left corner for GPS location
Description View of stream substrate being segregated in super sacks.	Description View of pipe being lowered in at stream S-I37.
	
GPS Location See top left corner for GPS location	GPS Location See top left corner for GPS location
Description View of ditch dewatering pumps being maintained.	Description View of trench breaker construction at stream S-I37 GAS.
	
GPS Location See top left corner for GPS location	GPS Location See top left corner for GPS location
Description View of trench breakers on either side of the stream.	Description View of the contractor contouring stream banks to the surveyed elevations.