



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread D	AFE	124300132	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	335		
Environmental Auditor	Scott Wessel	Date/Time	10/31/2023 8:20 AM		
Stream ID	S-L35-3	Crossing Start Date	10/31/2023	Crossing Completion Date	11/7/2023
Milepost	125.16	Pre-Con Assessment Date	10/31/2023	Post-Con Assessment Date	11/7/2023
Station	6608+41	Bankfull Width (ft.)	4.0	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? Time of Year Restrictions (TOYR)? <u>Yes</u> Mussel Relocation? <u>N/A</u>	See Below
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?	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	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

AFE	124300132	Date/Time	10/31/2023 8:20 AM	Report #	335	
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	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>Expanded Notes for question 1: Stream S-L35-3 has a time of year restriction (TOYR) prohibiting construction between Sept. 15th to March 31st. A waiver has been obtained from the appropriate agencies to allow construction within this window.</p> <p>10/31/23 – A flume and pump/dam conveyance system for the stream flow was used and interchanged throughout the crossing as needed. The top 12" of stream substrate material was removed, put into labeled super sacks, and staged in an upland area. The topsoil from stream banks was removed and segregated from subsoil material in an upland area on the coming in side (CIS) and going away side (GAS) of the resource. The crew hit solid rock soon after trenching started and a blasting crew was called in for the following day.</p> <p>11/1/23 – Pipe preparations were being carried out on the CIS of crossing with welding and x-ray, while blasting operations were being conducted most of the day on the CIS and GAS of the resource.</p> <p>11/2/23 - Pipe preparations on the CIS of the resource continued with coating and installation of rock shields. Blasting operations continued on an 80ft. section of the CIS throughout the day.</p> <p>11/3/23 – Trenching operations commenced and hammering was required to achieve appropriate trench depth.</p> <p>11/4/23 – Once trenching was completed the ditch was lined with sandbags, the pipe was lowered in, and the padding of the pipe began.</p> <p>11/5/23 - No work was conducted on Sunday.</p> <p>11/6/23 – Trench breakers on the CIS and GAS were installed at station number 6608+14 and 6608+93, respectively. Padding of the pipe and backfilling was completed. Survey verified that the topsoil for the 10ft. buffer zones on the CIS and GAS were put back to pre-construction specifications.</p> <p>11/7/23 – The proper seed mixture was applied to the 10ft. buffer zone on both sides of the stream prior to the installation of erosion control blankets and triple stack 18" filter sock being installed above the high water marks. Super silt fence was installed outside the 10ft. buffer zone areas on both sides of the crossing. Survey verified that the top 12" of substrate for S-L35-3 between the high water marks of the stream channel was restored to pre-construction elevations and contours. The pump and dam were removed, and the flow of the stream was restored.</p> <p>Numbers 17 and 18 were rated "4" and "3" due to lack of vegetation in the impact area following the completion of crossing and restoration efforts. The disturbed area for stream S-L35-3 has been properly stabilized and 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		
Scott Wessel				SWCA		
				Date		
				11/7/2023		

AFE	124300132	Date/Time	10/31/2023 8:20 AM	Report #	335				
Required Photos									
 <p>10/31/2023 10:11:22 +38.200292,-80.717049 315° NW S-L35-3(pre-SW)</p>		 <p>10/31/2023 13:14:20 +38.200396,-80.717203 355° N S-L35-3(pre-SW)</p>		GPS Location	See coordinates in above photo.				
Description	Downstream view of permitted impact area during pre-construction assessment.	Description	Downstream view of unimpacted area during pre-construction assessment.	 <p>11/07/2023 14:08:45 +38.200292,-80.717111 325° NW S-L35-3(post-SW)</p>		 <p>11/07/2023 14:14:00 +38.200404,-80.717256 348° N S-L35-3(post-SW)</p>		GPS Location	See coordinates in above photo
Description	Downstream view of permitted impact area during post-construction assessment.	Description	Downstream view of unimpacted area during post-construction assessment.	 <p>11/03/2023 10:46:50 +38.200163,-80.717305 024° NE S-L35-3(dur-SW)</p>		 <p>11/03/2023 12:08:48 +38.200334,-80.717294 130° SE S-L35-3(dur-SW)</p>		GPS Location	See coordinates in above photo.
Description	Blasting crew on site drilling to set charges.	Description	Hammering more rock in the ditch on the CIS of resource.						

AFE 124300132	Date/Time 10/31/2023 8:20 AM	Report # 335
----------------------	-------------------------------------	---------------------

Optional Photos

			
GPS Location	See coordinates in above photo.	GPS Location	See coordinates in above photo.
Description	Segregated topsoil staged on the GAS of crossing.	Description	Stream section after being lowered into ditch.
			
GPS Location	See coordinates in above photo.	GPS Location	See coordinates in above photo.
Description	Trench breaker installed on the CIS of crossing.	Description	Top soil on the GAS buffer zone being reworked to original contours.
			
GPS Location	See coordinates in a above photo.	GPS Location	See coordinates in above photo.
Description	Triple stack filter sock, erosion control blanket, and super silt fence installed on the CIS of crossing.	Description	Triple stack filter sock, erosion control blanket, and super silt fence installed on the GAS of crossing.