

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-IJ1	Crossing Start Date: 10/28/2023	Crossing Completion Date: 11/30/2023
Milepost: 253.8	Pre-Con Assessment Date: 10/26/2023	Post-Con Assessment Date: 12/01/2023
Station: 13413+05	Stream Classification: Perennial (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 12
County: Franklin	303(d) Impairment Listing: Not Impaired	Riffle:Pool Complexes Present? No

Item #	Resource Crossing Conditions	N/A	YES	NO
1.	Were all applicable resource specific crossing conditions satisfied? Time of Year Restrictions (TOYR)? <u>N/A</u> Fish Relocation? <u>Yes</u> Mussel Relocation? <u>N/A</u>		X	
2.	Is this resource designated a wild or stockable trout stream?			X
3.	Which crossing methods were utilized during the stream crossing? <i>(Select one or more)</i> Dam & Pump, Flume, Cofferdam, Conventional Bore, Horizontal Directional Drill (HDD) Bore?		Dam & Pump	
4.	Was the top 1-foot (12-inches) of streambed substrate segregated and stockpiled separate from trench spoils?		X	
5.	Was excess material not needed for backfill removed and disposed of in an upland area?		X	
6.	Was the top 12-inches of backfill made with clean native stream substrate?		X	
7.	Was the pre-construction survey data provided and utilized during restoration in attempt to re-establish pre-construction contours?		X	
8.	Were any field modifications to the stream implemented by project or regulatory personnel to address potential drainage or bank restoration limitations?			X
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?		X	
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?		X	
11.	Was the time of disturbance minimized by conducting resource work continuously to completion?			X
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?		X	
13.	Are bareroot saplings required and/or scheduled to be planted for the dormant season (10/1 – 4/30)?	X		
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.			X

Item #	Biological Conditions	Pre-Con	Post-Con
15.	Predominant Substrate Type (select one): <i>Bedrock, Boulder (>10"), Cobble (2-10"), Gravel (0.1-2"), Sand (<0.1"), Mud/Silt/Clay</i>	Bedrock	Cobble (2-10")
16.	Channel Conditions: Rating: 1-Optimal (80-100% stable banks), 2-Suboptimal (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 - Suboptimal	2 - Suboptimal
17.	Riparian Buffer Zone within ROW and ≤50 ft. from Stream Top-of-Bank: Rating: 1-Optimal (60-100% heavy vegetative cover), 2-Suboptimal (30-60% mixed vegetated coverage), 3-Marginal (<30% vegetative coverage), 4-Poor (Mowed/maintained area or farmland, impervious area, sparsely vegetated coverage, etc.)	2 - Suboptimal	1 - Optimal
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, 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)	2 - Suboptimal	1 - Optimal
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 - Negligible	1 - Negligible

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Comments/Remarks

10/26/23: A pre-construction meeting was held for the crew with the Precision Pipeline foreman. A pre-construction assessment was completed, and documentation photos were taken. The dewatering structure has already been constructed and has previously been used for the S-IJ2 & W-IJ1 crossings. The fish relocation is scheduled for tomorrow, 10/26/23.- A. Thorpe

10/27/23: The fish relocation was conducted. Upstream and downstream rock shields were installed. Preparation for the crossing began. -A. Thorpe

10/28/23: The upstream and downstream dams were constructed. The pump around was installed and the energy dissipator was attached downstream. The 10-foot buffer zone was cleared, and the rocks were removed from the streambed and bagged. The top 6-inches of streambed substrate was removed and separated. The crew hit bedrock after excavating to 6-inches. -S. Frost

10/30/23: The streambed was blasted twice, and debris was cleared from the area. -A. Thorpe

10/31/23: The upland buffer zone was blasted. The crew completed erosion and sediment (E&S) tasks. -A. Thorpe

11/01/23: Rock was hammered and excavated from the trench. Timber mats were placed on the stream bank of S-IJ1. -A. Thorpe

11/02/23: Rock was drilled and excavated from the trench. Timber mats continue to be used under equipment on the stream bed. -A. Thorpe

11/03/23: Drilling and excavation continued from the trench. -A. Thorpe

11/04/23: Drilling and excavation continued from the trench. -A. Thorpe

11/06/23: Hammering and excavation of the trench continued. A trench box was installed, and a section of pipe was prepared for installation. -A. Thorpe

11/07/23: Excavation continued. The dewatering structure and the dam and pump were functioning as designed. -A. Thorpe

11/08/23: A section of pipe was lowered into the trench. The bend was incorrect, and the pipe did not fit. -A. Thorpe

11/09/23: The crew completed E&S tasks and prepared for the forecasted rain. The pipe crew worked to repair the error in the pipe alignment. -A. Thorpe

11/10/23: The crew continued to repair the error in the pipe. The dewatering structure was functioning as designed. The crew prepared to excavate the upland trench. -A. Thorpe

11/11/23: Pipe repair continues. The crew prepared to excavate the upland trench. -A. Thorpe

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- 11/13/23: Pipe repair continues. Rock was hammered and excavated from the upland trench. -A. Thorpe
- 11/14/23: The pipe was lowered into the trench, welded, and x-rayed. A thin layer of biofilm was observed on the trench side of the upstream dam and will be monitored. -A. Thorpe
- 11/15/23: The pipe was coated and jeep tested. An upland pipe section was lowered into the trench. -A. Thorpe
- 11/16/23: Final adjustments were made to the coating and jeep QC activities. The remainder of the upland trench was excavated. The crew prepared to lower the final tie in section of the pipe. -A. Thorpe
- 11/17/23: The crew completed E&S tasks. The final section of the pipe was lowered, and welding began. The dam & pump continues to function as designed. No impacts to biological conditions have been observed throughout the crossing. -A. Thorpe
- 11/18/23: The final tie in weld was completed. -A. Bailey
- 11/20/23: The crew began QA/QC of the pipe and prepared the site for the forecasted rain. -A. Thorpe
- Item #11: 11/21/2023 through 11/23/2023—Work was halted two days for rain and the Thanksgiving Holiday. Dam and pump remain installed and was operated continuously during standdown time. -A. Thorpe
- 11/24/23: Continued QA/QC of the final welds. The Precision Pipeline foreman has changed to “Box”. The MVP EI remains Matt Futkos. A pre-construction meeting was not held for the new foreman. -A. Thorpe
- 11/25/23: Began construction of the GAS impervious trench breaker with bentonite bags. -A. Thorpe
- 11/26/23: Construction of the trench breakers continued. Padding was installed along the trench. The installation of the GAS trench breaker was completed. It is anticipated that the installation of the CIS trench breaker will be completed tomorrow, 11/27/23. -A. Thorpe
- 11/27/23: The installation of the CIS trench breaker was completed. Installation of padding in the trench continued, and the upland trench box was removed. Later in the afternoon, a Morooka fell off the timber mat bridge. The equipment fell into the downstream streambed of S-IJ1 on the working side, and all equipment remained within the ROW limits. No immediate negative downstream impacts were observed. Two pumps were damaged on impact and leaked approximately a gallon of gasoline into the open trench. Contaminated soil was excavated from the trench and properly disposed of. No gasoline was observed on the downstream side of the plastic liners and downstream dam, both of which remained intact after the fall. No unauthorized discharge or impacts to biological conditions were observed. MVP EI made applicable project notifications and spill reports for incident reporting requirements. -A. Thorpe
- 11/28/23: After the area was cleared by safety, the Morooka was removed and the remaining debris and contaminated soil was excavated. The contaminated soil was disposed of appropriately. The downstream cofferdam was repaired as needed, and no unauthorized impacts to the resource were observed. -A. Thorpe
- 11/29/23: The final trench box was removed, and backfilling of the trench began. -A. Thorpe
- 11/30/23: Final restoration began. The stream bed and banks were backfilled with subsoil and the survey crew

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staked the area to be graded. The top 6-inches of native stream substrate was returned. The stream rocks that were bagged when the stream was initially stripped were not able to be located, so rocks were removed from the stripped stream substrate post-blasting to recreate the pre-construction contours. The survey crew verified the as-built conditions. The 10-foot buffer zones were seeded with a 50/50 riparian and rye seed mix and curlex was applied. A compost filter sock was placed along the top of the GAS 10-foot buffer and super silt fence was placed along the top of the CIS 10-foot buffer due to the steep upland slope behind the CIS. The upstream and downstream dams were removed, and flow was returned to the stream. -A. Thorpe

12/1/23: Restoration of the CIS 50-foot buffer began. The post-construction assessment of the stream was documented. -A. Thorpe

No impacts to biological conditions or unauthorized discharges were observed during the crossing activity.

In accordance with the Mountain Valley Pipeline Consent Decree, Case No. CL18006874-00, (Issued October 11, 2019) 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.

<i>This report was written by</i>	Alessandra Thorpe <i>Print Name</i>	 <i>Signature</i>	12/02/2023 <i>Date</i>
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Required Photos

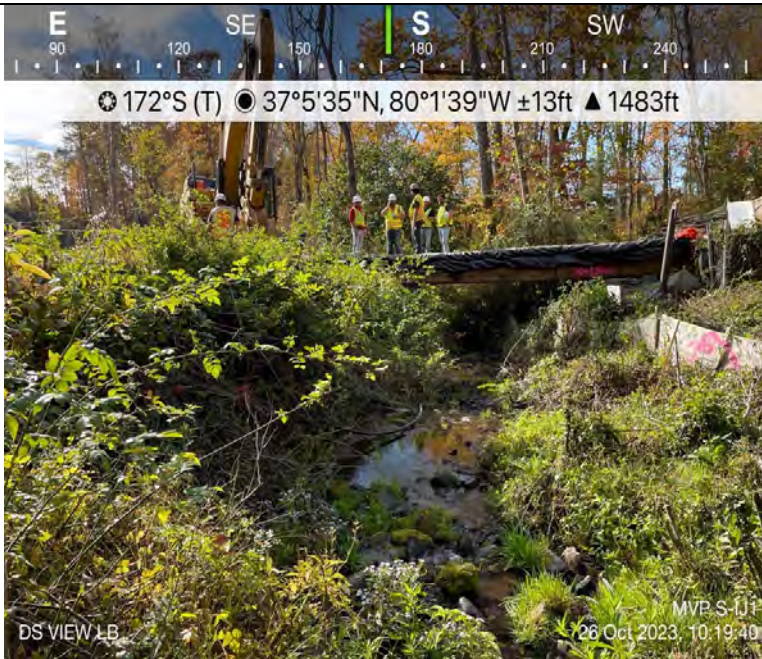


Photo Description: Downstream view of permitted impact area during pre-construction assessment.



Photo Description: Conditions of the downstream area outside the ROW during pre-construction assessment.



Photo Description: Downstream view of permitted impact area during post-construction assessment.



Photo Description: Conditions of the downstream area outside the ROW during post-construction assessment.

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Optional Additional Photos



Photo Description: An overview of the dam and pump.



Photo Description: The trench breaker installed on the GAS.



Photo Description: The crew removing the contaminated soil after the equipment malfunctioned.



Photo Description: The crew replacing the native substrate into the stream bed.