

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-D13	Crossing Start Date: 12/12/2023	Crossing Completion Date: 12/16/2023
Milepost: 248.8	Pre-Con Assessment Date: 12/04/2023	Post-Con Assessment Date: 12/20/2023
Station: 13146+39	Stream Classification: Intermittent (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 4
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>N/A</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, Flume		
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>	Mud/Silt/Clay	Mud/Silt/Clay
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)	4 - Poor	4 - Poor
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.)	3 - Marginal	3 - Marginal
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)	4 - Poor	4 - Poor
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

The MVP EI on-site is Austin Malnar.

12/04/23- The pre-construction meeting and pre-construction assessment was completed. The stream will initially be dammed and pumped and transition to a flume leading to the downstream energy dissipater. The dewatering structure will be built in a work box area outside of the 50-foot buffer. Coming In Side (C.I.S.) is considered a steep slope area and will be stabilized with Curlex daily. The stream substrate will be segregated from the wetland topsoil and S-D12's stream substrate and placed on Geotech and timber mats. Biological conditions are stable. - S. Frost

12/05/23- No work in the resource. The environmental crew is onsite to install Erosion control devices (EDC's) and the dewatering structure. No impacts to the biological conditions were observed. - S. Frost

12/06/23- No work in the resource. The dewatering structure was installed. The excavation of the loose end on the Going Away Side (G.A.S.) has begun. Welding began on the stream section of the pipe in an upland area. No impacts to the resource were observed. - S. Frost

12/07/23- No work in the resource. Trenching occurred outside of the 50-foot buffer on the G.A.S. of the resources. Welding, x-ray, coating, and jeeeping continued on the stream section of pipe in and upland area. No impacts to the resource were observed. - S. Frost

12/08/23- No work in the resource. Trenching was completed. The pipe padding was installed, and the pipe was installed into the trench outside of the 50-foot buffer on the G.A.S. of the resources. Partial backfill began outside of the 50-foot buffer. Welding, x-ray, coating, and jeeeping continued on the stream section of pipe and in the upland area. No impacts to the resource were observed. - S. Frost

12/09/23- No work in the resource. Backfilling has been completed outside of the 50-foot buffer. Final welds, x-ray, coating, and jeeeping was completed on the stream section of pipe. The travel lane on the ROW was closed due to the impending rain event and steep slope restrictions. All proper ECDs were in place during the rain event on 12/10/23. No impacts to the resource were observed. - S. Frost

12/11/23- No work in the resources. The top 12-inches of topsoil in the 50-foot buffer was removed and segregated in an upland area. The crew prepared for the resource crossing to begin on Tuesday, 12/12/23. No impacts to the resources were observed. - S. Frost

12/12/23- The upstream and downstream dam and pump were installed. The energy dissipater was installed downstream to prevent scouring. The top 12-inches of stream substrate was removed and segregated in an upland area on geotech and timber mats. The segregated substrate was stabilized and labeled. Trenching has begun and the subsoil was relayed to an upland area and stockpiled for backfilling. Preparations were made in anticipation for lowering the stream section of pipe into the trench. Flumes were installed to replace the use of pumps. No impacts to the biological conditions were observed. - S. Frost

12/13/23- Trenching continues through the resource. Welding rigs were installed in preparation for the PI and stream section of pipe to be laid into the trench and tied in on the G.A.S. The 90-degree turning PI outside of the 50-foot buffer was lowered into the trench and welding began. No impacts to the biological conditions were

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observed. - S. Frost

12/14/23- The resource section of pipe was laid into the trench and welding began on the G.A.S. outside of the 50-foot buffer. Backfill of subsoil inside of the 10-foot buffer began due to potential trench erosion. No impacts to the biological conditions were observed. - S. Frost

12/15/23- The x-ray for the PI weld began. The trench breakers were installed on the C.I.S. of the resource. Backfilling of the subsoil outside of the 10-foot buffer began. The flume was transitioned back to a dam and pump operation. X-rays were completed on the G.A.S. The backfilling of the subsoil was completed. Restoration will begin Saturday, 12/16/23. No impacts to the biological conditions were observed. - S. Frost

12/16/23- Survey shot grade to restore the stream substrate. 12-inches of substrate was replaced and contoured to final grade. The streambanks and 10-foot buffer were restored with 12-inches of upland topsoil. Seed and Curlex were applied to the topsoil for stabilization. No impacts to the biological conditions were observed. No unauthorized discharges were observed or reported during construction. - S. Frost

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>	Summer Frost <hr/> <i>Print Name</i>	 <hr/> <i>Signature</i>	12/20/2023 <hr/> <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 downstream dam and energy dissipater.



Photo Description: An overview of the dewatering structure functioning as designed.



Photo Description: The top 12-inches of stream substrate was segregated and stabilized.



Photo Description: Survey shooting final grade for the stream bed elevation.