

# STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



<b>Stream ID:</b> S-F8	<b>Crossing Start Date:</b> 10/17/2023	<b>Crossing Completion Date:</b> 10/31/2023
<b>Milepost:</b> 268.9	<b>Pre-Con Assessment Date:</b> 10/11/2023	<b>Post-Con Assessment Date:</b> 10/31/2023
<b>Station:</b> 14208+76	<b>Stream Classification:</b> Perennial (Perennial, Intermittent, Ephemeral)	<b>Bankfull Width (ft.):</b> 30
<b>County:</b> Franklin	<b>303(d) Impairment Listing:</b> Not Impaired	<b>Riffle:Pool Complexes Present?</b> Yes

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.	<b>Predominant Substrate Type (select one):</b> <i>Bedrock, Boulder (&gt;10"), Cobble (2-10"), Gravel (0.1-2"), Sand (&lt;0.1"), Mud/Silt/Clay</i>	Gravel (0.1-2")	Gravel (0.1-2")
16.	<b>Channel Conditions:</b> <b>Rating:</b> 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.	<b>Riparian Buffer Zone within ROW and ≤50 ft. from Stream Top-of-Bank:</b> <b>Rating:</b> 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	2 - Suboptimal
18.	<b>Instream Habitat Conditions:</b> <b>Examples:</b> 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. <b>Rating:</b> 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 - Optimal	1 - Optimal
19.	<b>Channel Alterations:</b> <b>Examples:</b> 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. <b>Rating:</b> 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)	3 - Moderate	3 - Moderate

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## Comments/Remarks

10-11-2023: Pre-construction meeting. The Precision Pipeline Foreman is Nathan Summers, and the MVP Environmental Inspector is Steven Barber. It was discussed that dynamite will need to be used due to rock. Construction is anticipated to begin Monday, 10-13-23. -T. Snideman

10-16-2023: The crew is demobilizing from the KL54 area. Excavation of the loose end is occurring while waiting for the blasting crew. The crew began excavating the trench for the tie-in near the road and installed a trench box. Upon excavating the trench, groundwater was encountered which became turbid and appeared to enter the stream unfiltered by controls through a subsurface connection. The crew dewatered the trench, and a turbidity curtain was installed along the seeping bank. No accumulated sediment was observed off-site and MVP notified DEQ on 10-16-2023. -T. Snideman

Item #14 – As noted above, turbid water from trench excavation outside of the stream migrated through the undisturbed bank and mingled with stream water/flowed downstream unfiltered. This was remedied by dewatering the trench through designed dewatering stations, installation of a turbidity curtain and DEQ notification. No accumulation of sediment was observable on or off site.

10-17-2023: Fish relocation personnel were on site and safely removed the fish from the stream. Crews installed the dam and pump around to alter the flow of the stream. An energy dissipator is in place downstream from the pump around. A secondary dam was installed between the primary dam and the energy dissipater. The timber mat bridge with double barrel flumes that was covering the center line was removed. Survey team was on site to collect information on the two loose pipe ends. -T. Snideman

10-18-2023: Survey team returned to collect more data on the resource. The blasting crew took measurements and conducted test drills. A 6-inch pump was installed in the trench where the tie-in is located. -T. Snideman

10-19-2023: Rock substrate was removed from the center line. The crew needs to remove a foot from the tie in and fix the trench box. Several blasting mats were utilized, and the blasting activities occurred in the stream area. -T. Snideman

10-20-2023: Blasted rock was removed from the trench line. The dewatering structure is functioning properly, and trench excavation continues. Another dewatering structure is being constructed close to the stream. -T. Snideman

10-21-2023: The trench was dewatered, but the pump does not have enough power to transport the trench water uphill. The John Henry machine was used to honeycomb the rock until the replacement pump arrived. The crew continued hammering. -T. Snideman

10-22-2023: Pump around operations were occurring. -T. Snideman

10-23-2023: Continue excavating along the trench line. The pipe was jeep tested and is ready to be installed. Maintenance was conducted on the dewatering structure. A loose end section of pipe was removed. Continued dewatering water from the trench. -T. Snideman

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10-24-2023: Repaired another dewatering structure and continued dewatering water from the trench. Pitting was noted in the pipe. The crew plans to remove the pitted section and replace the section with a pup joint.  
-T. Snideman

10-25-2023: A section of pipe was x-rayed and lowered in the ground. Welding of the pipe occurred. -T. Snideman

10-26-2023: Completed the weld. A trench breaker was installed 25-feet from the top of the bank. Sandblasting and coating of the pipe continued. Dewatering of the trench continued. The crew began backfilling with padding dirt and installed test leads. -T. Snideman

10-27-2023: Two welds were coated. Test station wires were installed. The trench was backfilled to the weld/location of the test lead. -T. Snideman

10-28-2023: The trench box was removed. The banks and stream bed were restored. Temporary and permanent seed mix was applied and erosion control blankets were installed on the stream banks up to the 10-foot buffer. Rock check dams were installed, and the dam and pump were removed. The flow was restored to the stream.  
-T. Snideman


10-30-2023: The rock check dam remains in place. No activity was noted near the crossing. -T. Snideman

10-31-2023: The rock check dam was removed, and the stream crossing is complete -T. Snideman

Item #14 – As noted on 10/16/2023, turbid water from trench excavation outside of the stream migrated through the undisturbed bank and mingled with stream water/flowed downstream unfiltered. This was immediately remedied by dewatering the trench through designed dewatering stations, installation of a turbidity curtain and DEQ notification. No accumulation of sediment was observable on or off site.

No impacts to the resource’s biological conditions were observed during the crossing.

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.

<p><i>This report was written by</i></p>	<p align="center"><b>Traci Snideman</b> <i>Print Name</i></p>	 <i>Signature</i>	<p align="center"><b>10/31/2023</b> <i>Date</i></p>
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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.



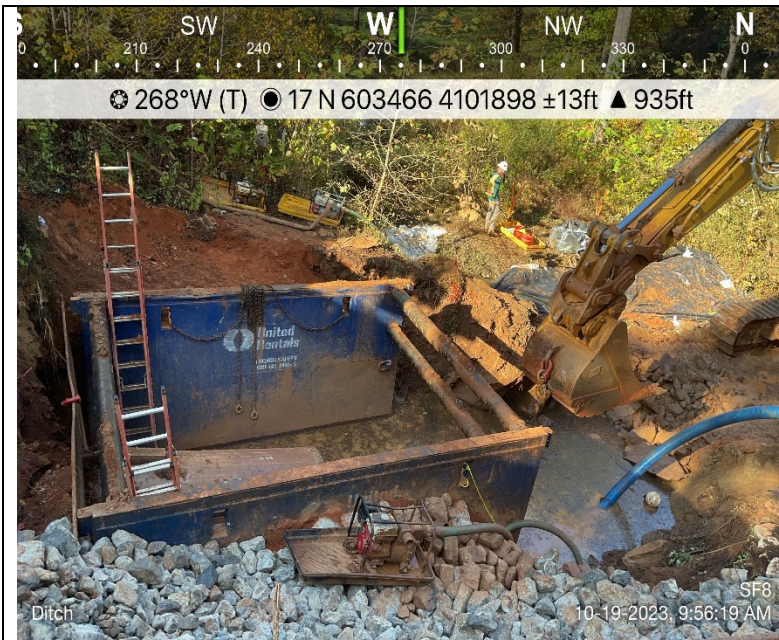
**Photo Description:** Conditions of the downstream area outside the ROW during post-construction assessment.



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## Optional Additional Photos



**Photo Description:** A trench box was installed, and excavation has begun.



**Photo Description:** An overview of the pump around transporting water.



**Photo Description:** Restoration of the 50-foot buffer. Modification to right bank to account for step/eroded stream bank.



**Photo Description:** Turbidity curtain installed to control turbidity from entering the resource during trench pump-down.



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**Photo Description:** Turbid water emerged from stream bank during excavation of pipe loose ends in upland area.



**Photo Description:** Upland trench excavation when turbid water emerged from bank into resource.



**Photo Description:** Downstream conditions of the resource after pump-down of upland trench to control turbidity. No fish kills or accumulated material was observed off-site.



**Photo Description:** Downstream conditions of resource during turbid water release through streambank.