

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-A20	Crossing Start Date: 01/02/2024	Crossing Completion Date: 01/09/2024
Milepost: 278.8	Pre-Con Assessment Date: 01/02/2024	Post-Con Assessment Date: 01/11/2024
Station: 14729+62	Stream Classification: Perennial (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 7
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	Boulder (>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	2 - Suboptimal
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	2 - Suboptimal
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

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Comments/Remarks

01-02-24: Pre-construction auditor assessment completed. The Precision Pipeline foreman is W. Martin, and the MVP EI is D. Johnstone. This crossing is being completed in conjunction with S-A19-H26, and that resource converges with S-A20 within the temporary impact area. Construction began. The fish relocation was completed. The dam and pump were installed. The topsoil was excavated from both stream buffer zones, segregated, and stockpiled within the 10-foot buffer.

Item #4: The streambed material comprised of bedrock and could not be removed prior to drilling for blasting operations. The blasting crew began drilling to blast the stream bed and the left bank. -D. Fraise

01-03-24: Drilling for blasting operations continued on the Going Away Side (GAS) bank. A substantial quantity of rock extends deep into the subsoil and will have to be removed. The dewatering structure is functioning as designed. Some welding occurred in upland areas. The stream dam and pump around is functioning as intended and resulted in low turbidity and no sediment off-site. -D. Fraise

01-04-24: The blasting performed on 01-03-24 was insufficient to remove the bedrock to the proper trench depth. Drilling and blasting continued and debris were removed to the upland area. The pump around, dam, energy dissipater, and sediment controls are working as designed. The water that requires dewatering was pumped to the upland dewatering structure. Clear water from the dewatering structure was discharged to vegetated land. Biological conditions downstream are undisturbed. -G. Johnson

01-05-24: Blasting continues in order to remove enough rock to install pipe. Water from the seep at S-A19-H26 is being relayed to the trench for S-A19 and then pumped to the upland dewatering structure. The dewatering structure is functioning as designed. The stream water that is pumped around the upstream dam is free of sediment. Biological conditions remain stable. -G. Johnson

01-06-24: Heavy rain prevented work onsite. Pumps were monitored overnight and throughout day. -G. Johnson

01-07-24: Excavation was completed, and the pipe was lowered into the trench. The Coming In Side (C.I.S.) tack was welded to the existing pipe. The trench was dewatered, and the pump around continues to function as designed. Biological conditions remain stable. - G. Johnson

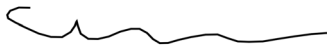
01-08-24: The stream crossing is complete. The stream contours were returned to the pre-construction conditions to the extent practicable. The streambanks were stabilized with erosion control fabric and a riparian seed mix combined with a winter seed mix was applied. Straw mulch was applied for stabilization. Super-silt fence was installed along the 10-foot buffer. No unauthorized discharges occurred during construction. Erosion control devices were installed including filter socks, silt fence, super silt fence, and straw mulch. Flow was returned to the stream. Auditor post-construction assessment completed.

Item #6: The stream substrate was primarily bedrock and there was not 12-inches of substrate initially excavated and segregated from the stream. The substrate that was excavated was segregated and returned to the stream following construction. Bedrock required blasting for construction of trench, therefore boulders were returned to the stream during restoration. -G. Johnson

Item #8: A field modification was required on the left stream bank. The pre-construction bank was a solid rock wall that required blasting and could not be returned to its pre-existing state.

No impact to biological conditions or unauthorized discharge were observed during the crossing activities.

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>	Gary Johnson <hr/> <i>Print Name</i>	 <hr/> <i>Signature</i>	01/11/2024 <hr/> <i>Date</i>
-----------------------------------	--	--	--

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3

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.

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Optional Additional Photos

North West Elevation

129°SE (T) 36°59.269', -79°41.953' ±3m ▲ 250m



Stream substrate separated and stabilized with straw

S-A20

01-07-2024 1:53:07 PM

Photo Description: The stream substrate was excavated, segregated, stockpiled, and stabilized with straw mulch.

West Elevation

108°E (T) 36°59.266', -79°41.913' ±4m ▲ 244m



Pumps in secondary containment

S-A20

01-08-2024 2:03:17 PM

Photo Description: The pumps utilized for the pump around were placed in secondary containment.

North Elevation

199°S (T) 36°59.268', -79°41.913' ±9m ▲ 253m



Bank stabilization

S-A20

01-08-2024 3:48:02 PM

Photo Description: Straw matting was installed to stabilize the stream banks.

North Elevation

171°S (T) 36°59.266', -79°41.915' ±4m ▲ 243m



Restoration in progress

S-A20

01-08-2024 2:05:57 PM

Photo Description: Restoration of the resource after pipe backfill.