

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-KL25	Crossing Start Date: 12/18/2023	Crossing Completion Date: 12/31/2023
Milepost: 243	Pre-Con Assessment Date: 12/07/2023	Post-Con Assessment Date: 12/31/2023
Station: 12838+07	Stream Classification: Intermittent (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 5
County: Roanoke	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	
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>	Sand (<0.1")	Sand (<0.1")
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)	1 - Optimal	1 - Optimal
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.)	1 - Optimal	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	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

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Comments/Remarks

12/06/23 – The pre-construction meeting has been scheduled for Thursday, 12/07/23 at 10am. The MVP EI on site is Dylan Hooper. -T. Brodbeck

12/07/23 – The pre-construction assessment has been completed. Three-inch pumps were brought on-site for the pump around with a backup pump on standby. Filter socks were previously installed during the timber mat bridge construction. Active construction on the site is anticipated for Monday, 12/18/23. -T. Brodbeck

12/08-17/23 – No work activity within the resource. -T. Brodbeck

12/18/23 – The stream was dammed with sandbags and Visqueen. A three-inch pump, three-inch hose, and a filter bag for the pump around was installed. The stream topsoil was excavated and stored on geotech fabric and timber mats. The stream topsoil was segregated from the wetland topsoil. The crew proceeded to excavate and trench through the stream. - T. Brodbeck

12/19/23 – Trench breakers were installed utilizing sandbags. The pipe was welded and x-rayed. The wetland was backfilled and padded. -T. Brodbeck

12/20/23 - Continued backfilling. The stream substrate was replaced, and riparian seed was applied. A topographic survey was completed. - T. Brodbeck

12/21/23 - Restoration was completed. The dam & pump was removed, and water flow was restored to the stream. Wetland restoration continued. Sediment was removed from the bridge and the filter socks were replaced. -T. Brodbeck

12/22/23 - No change in the resource. Restoration continued in the wetland. -T. Brodbeck

12/23-27/23 – No work activity completed in the resource as most crews were in stand down for holidays. Crossing method maintained throughout break by environmental maintenance crew. -T. Brodbeck

12/28/23 – Welding and water pumping occurred in the upland adjacent to the stream and wetland. Topsoil is stored in the buffer zone of the wetland. - T. Brodbeck

12/29/23 - Welding and water pumping occurred in the upland adjacent to the stream and wetland. Topsoil is stored in the buffer zone of the wetland. - T. Brodbeck

12/30/23 - Continued welding in the adjacent upland. The upland was backfilled, and the wetland was padded. -T. Brodbeck

12/31/23 - Restoration was completed in the buffer zone and the wetland. Riparian seed was applied on the stream bank and Geotech was installed. Filter socks were installed along the buffer zone. Post-construction auditor assessment completed. No impacts to biological conditions or unauthorized discharges were observed during the crossing. -T. Brodbeck

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>	Troy Brodbeck <hr style="width: 80%; margin: 0 auto;"/> <i>Print Name</i>	 <hr style="width: 80%; margin: 0 auto;"/> <i>Signature</i>	12/31/2023 <hr style="width: 80%; margin: 0 auto;"/> <i>Date</i>
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Required Photos

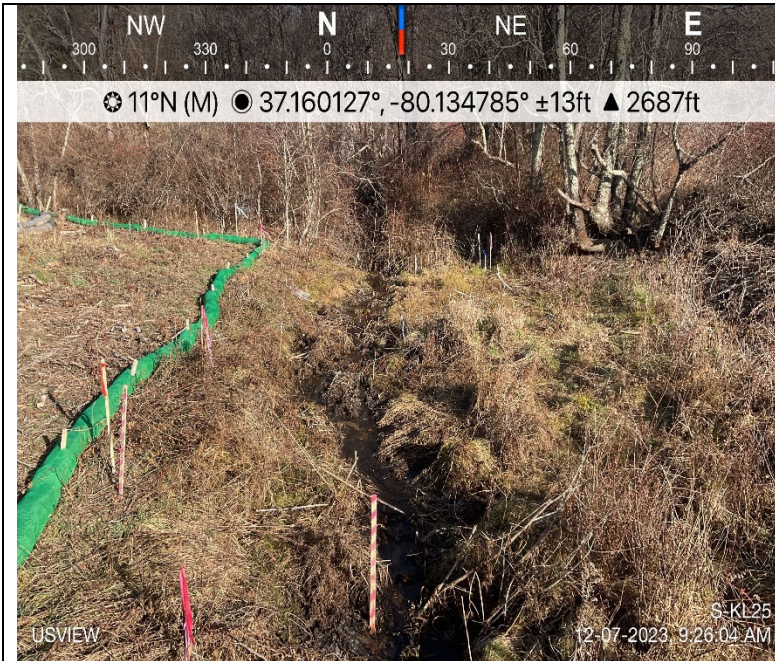


Photo Description: Upstream view of permitted impact area during pre-construction assessment.



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



Photo Description: Upstream 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: The construction of the pump around for the stream.



Photo Description: Excavation of the stream substrate.



Photo Description: Restoration of the stream bank with matting.



Photo Description: Restoration of the stream substrate.