

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-EF33	Crossing Start Date: 08/15/2023	Crossing Completion Date: 08/19/2023
Milepost: 241.5	Pre-Con Assessment Date: 08/08/2023	Post-Con Assessment Date: 08/19/2023
Station: 12776+75	Stream Classification: Intermittent (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 9
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>Yes</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>	Mud/Silt/Clay	Mud/Silt/Clay
16.	Channel Conditions: Rating: 1-Optimal (80-100% stable banks), 2-Sub-optimal (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-Sub-optimal (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)	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

MVP EI on-site is James Simmons.

8/8/2023: Pre-con meeting delayed due to homeowner interactions with site personnel, pre con assessment photos taken. -S. Frost

8/9/2023: Pre-con meeting set for Friday 8/11/23 at 10:00am, drilling outside resource buffer for bedrock, no bedrock found. -S. Frost

8/10/2023: Rained out, no work in resource. -S. Frost

8/11/2023: Pre-con meeting rescheduled for Saturday 8/12/23 at 2:00 pm. -S. Frost

8/12/2023: Pre-con meeting at 2:00pm- S. Frost

8/13/2023: Topsoil and subsoil removed and segregated, trenching began in 50 ft buffer area, sub soil segregated in upland area and stabilized. -S. Frost

8/14/2023: Rain out will resume work into stream on 8/15/23 -S. Frost

8/15/2023: Dam and pump and energy dissipater constructed and functioning, ran pump around overnight. -S. Frost

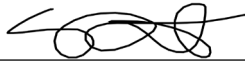
8/16/2023: Trenching and hammering in 10 ft buffer, stream bed topsoil and sub soil segregated and labeled, dam and pump in place and functioning. -S. Frost

8/17/2023: Dewatering trench, dam and pump functioning, trenching and hammer continue, sandbag pipe support installed, trench breakers started, pipe lowered into trench, partial back fill. -S. Frost

8/18/2023: Dewatering trench, dam and pump functioning, finished trench breakers, back fill continues, anticipated topsoil and contour for Saturday 8/19/23. - S. Frost

8/19/2023: Dam and pump functioning, back fill continues, stream bed contoured, banks restored and stabilized with seed and matting, super silt fence replaced at 10 & 50 ft buffers, water flow restored. -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>	S. Frost <hr/> <i>Print Name</i>	 <hr/> <i>Signature</i>	08/22/2023 <hr/> <i>Date</i>
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Required Photos



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



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



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



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

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Optional Additional Photos



Photo Description: First scoop of stream bed top soil being removed.



Photo Description: Trenching; dam and pump, and dewatering operation



Photo Description: Trench breakers in progress, partial back fill, and dam and pump around active.

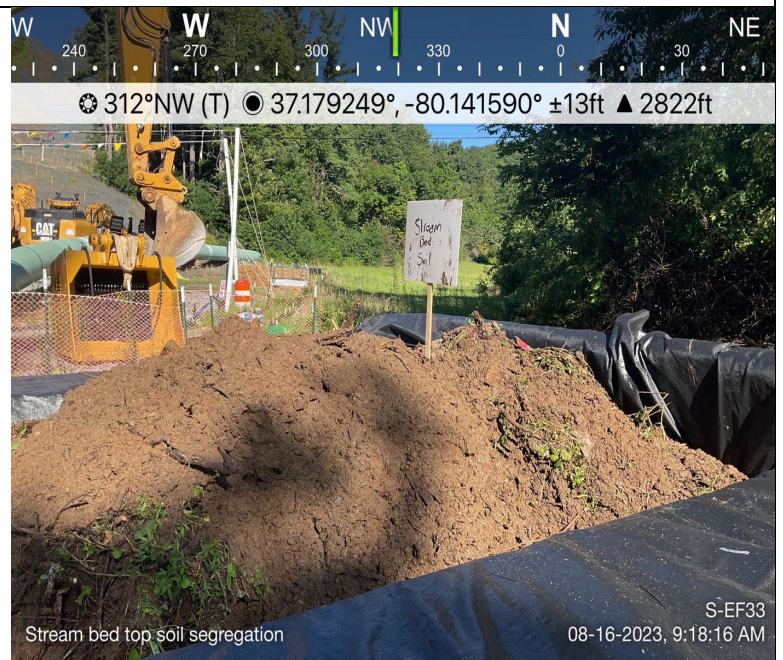


Photo Description: Stream bed top soil segregation and labeled.