

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-C8	Crossing Start Date: 08/23/2023	Crossing Completion Date: 08/25/2023
Milepost: 267.6	Pre-Con Assessment Date: 08/21/2023	Post-Con Assessment Date: 08/26/2023
Station: 14141+57	Stream Classification: Intermittent (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 5
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		
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>	Cobble (2-10")	Cobble (2-10")
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)	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-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.)	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)	3 - Marginal	3 - Marginal
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

8-21-2023: Pre con meeting. El is Dustin. Forman is Dean. Stream is to be open cut. Stream S-F4 is close but should not be impacted. Survey team onsite shooting new data. Test holes and upland topsoil removal on 8-21, possible crossing on 8-22. 10 ft buffers were set with filter sock. No dewatering at time of pre con. -J. Vandertill

8-23-2023: Open cut began. Energy dissipator installed. Dam and pump installed. Top soil, bed stones and bed material separated, stockpiled on geotech fabric and mulched. The pipe was laid. The trench breakers were installed. Survey team on site. A significant amount of backfilling took place. Backfilling will continue tomorrow along with restoration. Top of the pipe is 8 feet from the bottom of the stream bed. -J. Vandertill

8-24-2023: Trench dewatered. Backfilling of the trench continues. Stream channel roughed in. Survey team onsite placing grade stakes for channel restoration. The surveyors are using their new data set shot prior to construction, not the old 2018 data. A field modification was made: The right bank was restored to a 3:1 slope due to sheer/vertical bank pre-construction conditions. -J. Vandertill

8-25-2023: Stream grading continues. Bank topsoil replaced. Stream bed top soil replaced. Buffer topsoils replaced. Survey team confirmed restoration and grades have been restored to less than a 10th of pre-construction conditions. Seed and matting were installed. 10 foot resource buffer seeded and matted. Flow has been restored. -J. Vandertill

No unauthorized discharges or impacts to biological conditions were observed.

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>	Jim Vandertill <i>Print Name</i>	 <i>Signature</i>	08/26/2023 <i>Date</i>
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Required Photos



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

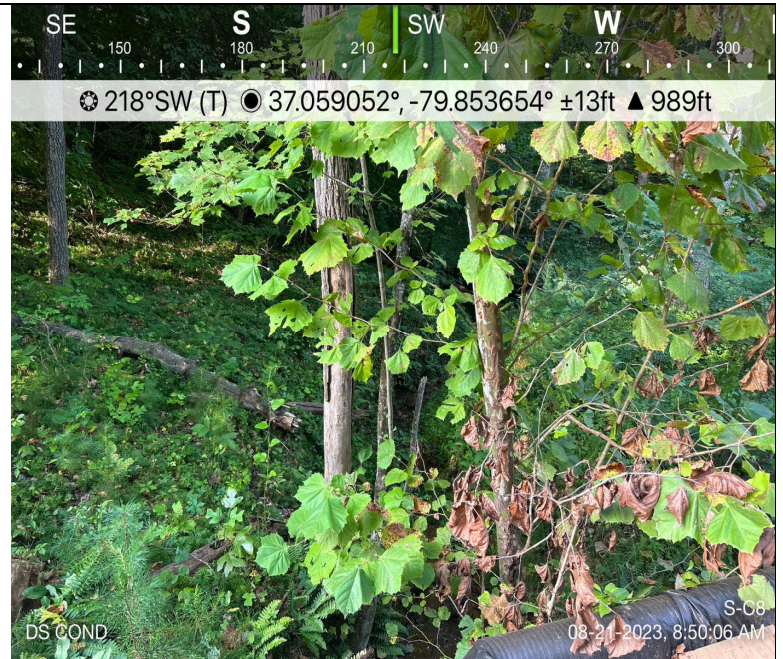


Photo Description: Downstream view of unpermitted area during pre-construction assessment.



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: Upstream view of resource prior to construction.

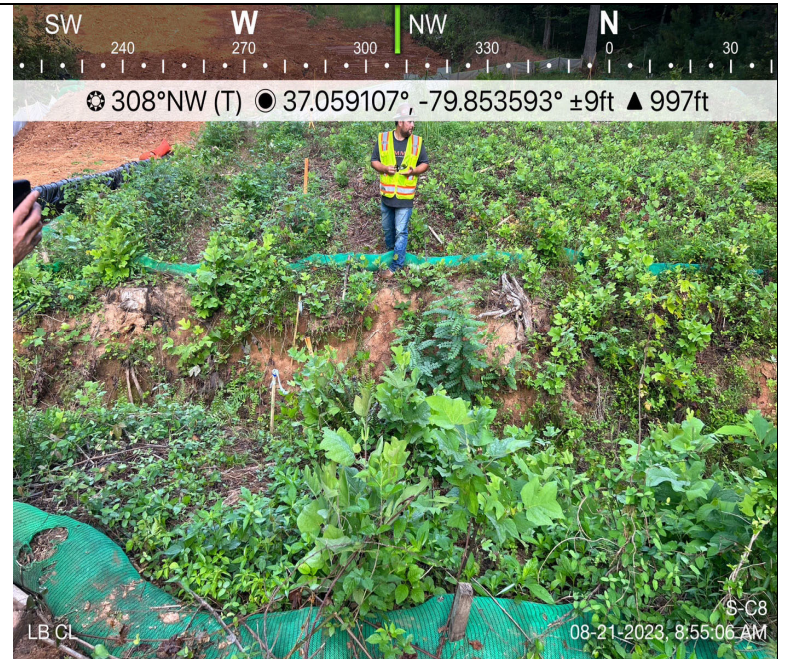


Photo Description: Pipe centerline view of the resource from the left bank prior to construction.



Photo Description: Pipe centerline view of the resource from the right bank prior to construction.



Photo Description: Dewatering operation set up for use, as needed.