

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-E24	Crossing Start Date: 11/27/2023	Crossing Completion Date: 01/05/2024
Milepost: 207.9	Pre-Con Assessment Date: 11/20/2023	Post-Con Assessment Date: 01/05/2024
Station: 10985+92	Stream Classification: Perennial (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 20
County: Giles	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>	Cobble (2-10")	Cobble (2-10")
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)	3 - Marginal	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.)	3 - Marginal	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

11/20/2023- Pre-construction meeting held and pre-construction assessment complete. MVP EI is Rodney Summers. Modification will likely be made at restoration due to steep banks and large rocks within resource area. -A. Burgess

Item #18: Marked poor because it is a dry stream.

11/27/2023- Transferred all required materials to the resource area. Installed dam, pump, and energy dissipation bag. Began removing large boulders from 50ft buffer zone to prepare for topsoil removal and segregation. Biological conditions are stable and no impacts were observed. -A. Burgess

11/28/2023- Removed top 12in. of topsoil from buffer area. Due to lack of space, topsoil was segregated and stockpiled in upland area with a 6in. straw barrier to prevent mixing. Biological conditions remain stable and there were no observed impacts. -A. Burgess

11/29/2023- Removed top 12in. of stream substrate. Due to lack of space, stream substrate was segregated and stockpiled in upland area with 6 in. straw barrier to prevent mixing and covered with Visqueen plastic. Began removing subsoil to match grade of travel lane to prepare for trenching operations. Biological conditions remain stable and there were no observed impacts. -A. Burgess

11/30/2023- Conducted test drilling operations to determine the amount of rock present. Completed excavation of loose end on CIS. Forward progress on hold, awaiting engineering. -A. Burgess

12/01/2023- Engineering complete. Awaiting delivery of pipe sections. Conducted environmental maintenance. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/02/2023- Pipe sections still being delivered. Began welding sections together in upland area to prepare for installation. Biological conditions remain stable. -A. Burgess

12/04/2023- Pipe sections still being delivered. Welding continues. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/05/2023- Continued welding pipe sections to fabricate the pieces needed for installation in trench. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/06-11/2023- Forward progress on hold until completion of welds for tie in on GAS of S-E25 bore. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/12/2023- Began trench excavation on CIS. Subsoil is being relayed and stockpiled in upland area. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/13/2023- Trench excavation continues. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/14/2023- Trench excavation continues on GAS. Lowered in first section of pipe on CIS and completed weld 1 of 4. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/15/2023- Trench excavation continues on GAS. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/16/2023- Trench excavation complete. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/18/2023- Lowered in pipe section on GAS in the shared buffer area between S-E24 & S-E25. Completed weld 2 of 4. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/19/2023- While lowering in final section of pipe it was discovered that the pipe was 15-20 feet short. The Engineer was called in to take new measurements and more pipe was delivered to remedy the situation. Biological conditions remain stable and no impacts were observed. -A. Burgess

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12/20/2023- After lowering in pipe and lining up for weld, some fitting issues were discovered that were preventing the pipe from sitting properly in the trench. To correct this issue, a cut was made and pipe was rotated and reinstalled. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/21/2023- Completed pipe installation and welding. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/22/2023- Completed padding of stream and 10ft. FERC buffer. Installed trench breakers and completed backfilling. Restoration of stream bed and 10ft. buffer complete and all ECDs in place. Dams and pumps were removed and flow has been restored. 50ft. buffers remain open awaiting final restoration. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/22-26/2023- Work stand down for holiday. Inspection and maintenance crews remained on site.

12/27/2023- Rain out. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/28/2023- Completed X-raying and began coating. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/29/2023- Installed test leads and Zinc ribbon and began padding. Coating continues. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/30/2023- Coating complete. Began backfilling. Biological conditions remain stable and no impacts were observed. -A. Burgess

12/31/2023- Backfilling on CIS complete. Biological conditions remain stable and no impacts were observed.
-A. Burgess

01/02/2024- Backfilling complete on GAS. Working to build up and re-establish pre-construction grade for 50ft. buffer on CIS. Biological conditions remain stable and no impacts were observed. -A. Burgess

01/03/2024- Re-establishment of pre-construction grade continues. Biological conditions remain stable and no impacts were observed. -A. Burgess

01/04/2024- Completed re-establishment of pre-construction grade. Began restoring topsoil in 50ft. buffer area. Biological conditions remain stable and no impacts were observed. -A. Burgess

01/05/2024- Restoration is complete and all ECDs have been installed. Biological conditions remain stable and no impacts were observed. -A. Burgess

No impacts to biological conditions were observed during the crossing activity.

Item #8- Field modification was made to stream top of bank on both sides of the resource. Due to steepness, banks were restored at a 2:1 ratio to address bank restoration limitations.

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.

This report was written by	Allen Burgess <hr style="width: 80%; margin: 0 auto;"/> <i>Print Name</i>	 <hr style="width: 80%; margin: 0 auto;"/> <i>Signature</i>	01/07/2024 <hr style="width: 80%; margin: 0 auto;"/> <i>Date</i>
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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.

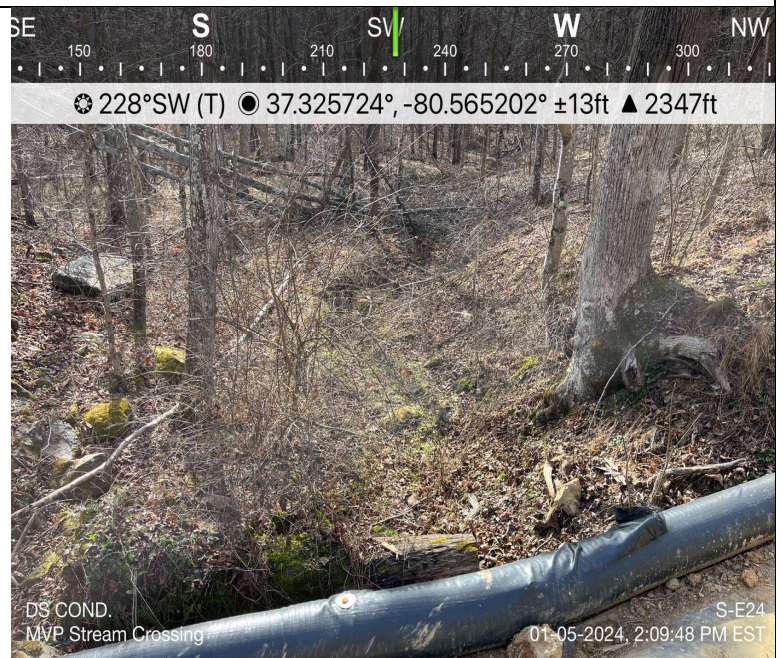


Photo Description: Conditions of the downstream area outside the ROW during post-construction assessment.

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Optional Additional Photos



Photo Description: Stream substrate stockpile and stabilization



Photo Description: Dam & pump operation maintained throughout construction.



Photo Description: Downstream dam & energy dissipation bag



Photo Description: Trench breaker installation and subsoil padding backfill.