

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-RR5	Crossing Start Date: 10/30/2023	Crossing Completion Date: 11/18/2023
Milepost: 208.4	Pre-Con Assessment Date: 10/26/2023	Post-Con Assessment Date: 11/20/2023
Station: 11015+52	Stream Classification: Perennial (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 10
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.)	2 - Suboptimal	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

10/26/2023- PreCon meeting held. Confirmed location for de-watering structure. PreCon assessment complete. MVP EI for crossing is Rodney Summers. -A. Burgess

10/30/2023- Installed dam & pump and removed topsoil on one side of buffer. Excavated loose end. -A. Burgess

10/31/2023- Top 12in. of topsoil and stream substrate segregated and stockpiled inside 50ft. buffer zone. -A. Burgess

11/01/2023- Began test drilling for rock. -A. Burgess

11/02/2023- Test drilling complete. Blasting complete. -A. Burgess

11/03/2023- Began trenching. Subsoil is being segregated and stockpiled in upland areas. -A. Burgess

11/04/2023- Trenching continues. Hit rock and began hammering. -A. Burgess

11/06/2023- Hammering complete. Trenching continues. -A. Burgess

11/07/2023- Trenching complete. Lowered in First section of pipe. First weld complete. -A. Burgess

11/08/2023- Lowered in second section of pipe. Second weld complete. -A. Burgess

11/09/2023- Installed third section of pipe and completed third weld. Dam & pumps still functioning efficiently. Downstream flow remains consistent and biological conditions remain stable. -A. Burgess

11/10/2023- Rain out. Crews remained onsite for dam & pump operations and continuous monitoring of resource conditions. -A. Burgess

11/11/2023- Dewatering operation complete. Dewatering structure functioning properly. Installed final section of pipe and completed 1 of 2 welds. Dam & pumps continue to operate efficiently. Downstream flow remains consistent and biological conditions remain stable. -A. Burgess

11/12/2023- Final weld complete. X-Ray complete. Downstream flow remains consistent. Biological conditions remain stable. -A. Burgess

11/13/2023- Media blasting and coating of all welds complete. Downstream flow remains consistent. Biological conditions remain stable. -A. Burgess

11/14/2023- Work is on hold while a diesel fuel spill is cleaned up and the TMB is replaced. The contaminated soil and material was properly disposed of and the spill was properly documented. There were no impacts to the resource or biological conditions. -A. Breeding

11/15/2023- Began building daylight drain & trench breakers. Began padding. Downstream flow remains consistent. Biological conditions remain stable. -A. Burgess

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11/16/2023- Installed zinc ribbon. Finished installation of daylight drain and trench breakers. Downstream flow remains consistent. Biological conditions remain stable. -A. Burgess


11/17/2023- Padding and backfilling complete. Biological conditions remain stable. -A. Burgess

11/18/2023- Restoration complete. Top 12 inches of stream bed restored with clean native stream substrate. Top 12 in. of 50 ft. buffers restored with native topsoil. 10ft. FERC buffers were seeded and stabilized with erosion control matting. 50ft. buffers were seeded and stabilized with 6in. layer of straw. Stream was restored to pre-construction conditions and flow has been restored. -A. Burgess

Item #8 was marked as "No" because the survey data during restoration indicated that all cross-sectional points were restored to meet pre-construction elevations. The large rock in the center of the resource was restored to the pre-construction corner shots according to the baseline survey data. No elevation data was available regarding the large rock, however, due to depth of cover concerns over the pipe the large rock needed to be restored to the pre-construction location but placed at a higher elevation.

No unauthorized discharges or impacts to biological conditions 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>	Allen Burgess <i>Print Name</i>	 <i>Signature</i>	11/21/2023 <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: Dams & pumps



Photo Description: Dam & energy dissipation bag

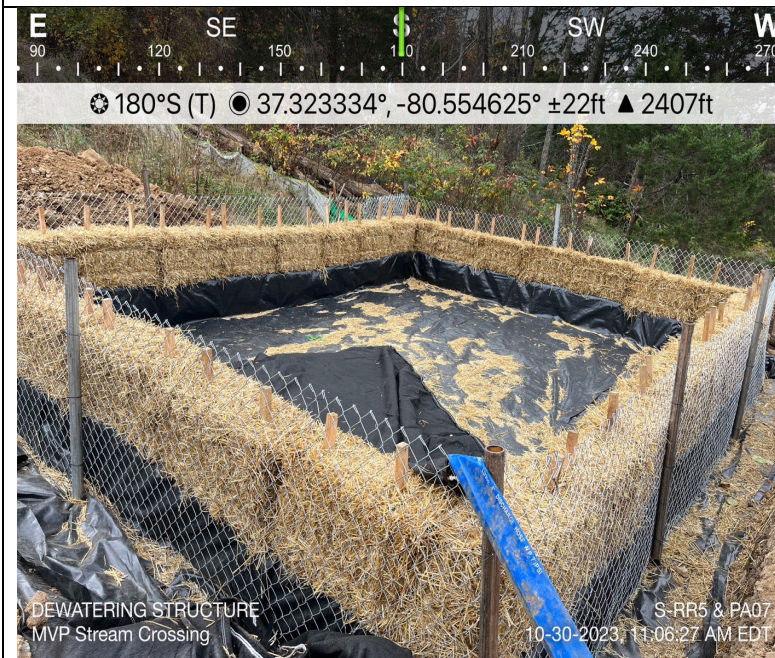


Photo Description: De-watering structure



Photo Description: Stream substrate stockpile