STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-G30	**Crossing Start Date:** 12/09/2023	**Crossing Completion Date:** 12/22/2023
Milepost: 202.1	**Pre-Con Assessment Date:** 12/07/2023	**Post-Con Assessment Date:** 12/22/2023
Station: 10679+39	**Stream Classification:** Ephemeral **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 8
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)? N/A Fish Relocation? N/A Mussel Relocation? N/A		X	
2.	Is this resource designated a wild or stockable trout stream?			X
3.	Which crossing methods were utilized during the stream crossing? *(Select one or more)* 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):** *Bedrock, Boulder (>10"), Cobble (2-10"), Gravel (0.1-2"), Sand (<0.1"), Mud/Silt/Clay*	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)*	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-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.)*	3 - Marginal	3 - Marginal
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

Comments/Remarks

12/7/23- Pre-construction assessment complete. S-G29 tributary outside of LOD won't be impacted. Dewatering structure to be constructed tomorrow in preparation for open cut. -D. Coleman

12/9/23- Dewatering structure built onsite. Awaiting heavy equipment mobilization. Blast crews prepare CIS of resource 50+ yards above resource. Weather intermittent with rain and slow operations. Open cut not yet under construction. No impact to biological conditions observed. -D. Coleman

12/11/23- Stream substrate removed and segregated. Pumps and dams in place and dewatering structure constructed and on standby. Trench construction begins with topsoil removed segregated seeded and strawed. Blasting pits are in the process of being marked and drilled. Resource is intact with no impact to biological conditions observed. -D. Coleman

12/12/23- Topsoil has been stripped, segregated, seeded, and strawed in preparation for the blast crews. Blast zone has been marked and blast pits being drilled in preparation for blast. Resource site monitored up and down stream with no impact to resource observed. Pumps and dams are in place. Dewatering structure is on standby. -D. Coleman

12/13/23- Blast crews on site and prepping blast zone. Blast will occur both CIS and GAS of resource. Blast scheduled for the afternoon. Photos retrieved before blast CIS and US of resource. No impact to biological conditions observed. -D. Coleman

12/14/23- Construction resumes on trench post blast. Heavy amount of stone content within and around resource permitted area. Pipe being coated and prepped outside of resource. No impact to biological conditions observed. -D. Coleman

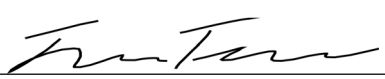
12/19/23- Coating taking place, trench breakers installed on CIS and backfill has begun. -T. Turner Jr

12/20/23- Lowering of pipeline, welding, sandblasting and coating taking place. -T. Turner Jr

12/21/23- Backfill and restoration has begun, stream substrate restored. -T. Turner Jr

12/22/23- Restoration of the 12 inches of topsoil on the side of the stream bed, installed ECM, seeded buffer, and filter socks to mark the 10- and 50-foot buffers of the resource. Straw was laid on the buffers, and the restoration crew restored the banks with seed and ECM. The stream was restored to pre-construction contours. No impacts to biological conditions or unauthorized discharges were observed during the crossing activities. -T. Turner Jr

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	Terrence N. Turner Jr *Print Name*	 *Signature*	12/22/2023 *Date*

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.

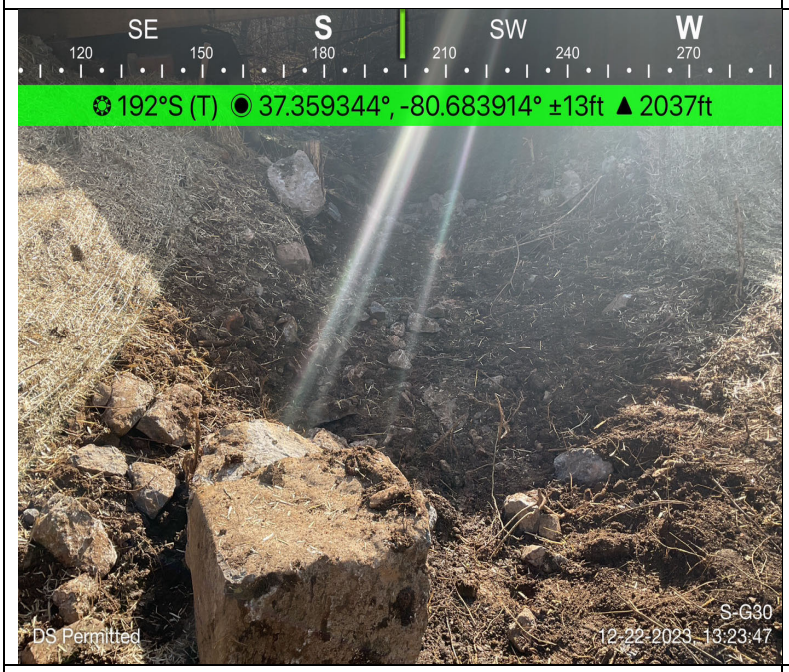


Photo Description: Downstream view of permitted impact area during post-construction assessment.

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

Optional Additional Photos

Photo Description: Dewatering structure located onsite.

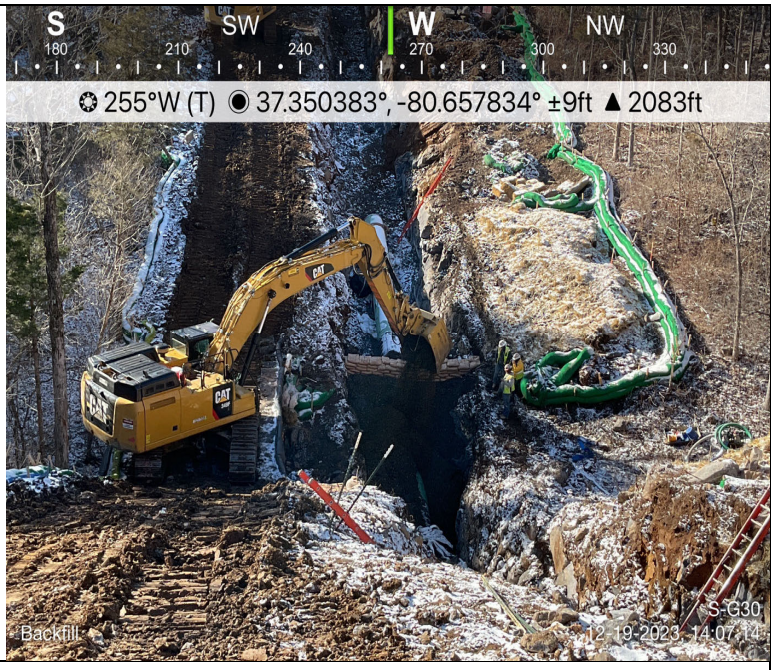


Photo Description: Trench breakers installed and padding and backfill begin.

Photo Description: Dam and pumps in place.

Photo Description: Topsoil segregated and stabilized.