STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc. — a DAVEY company

Stream ID: S-NN13
Crossing Start Date: 10/11/2024
Crossing Completion Date: 10/11/2024
Milepost: 214.4
Pre-Con Assessment Date: 10/09/2024
Post-Con Assessment Date: 10/11/2024
Station: 11329+37
Stream Classification: Intermittent
(Perennial, Intermittent, Ephemeral)
Bankfull Width (ft.): 2
County: Giles
303(d) Impairment Listing: N/A (E. coli, pH, Benthics, Hg in Fish, PCB in Fish, Fecal coliform)
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)? ☐ Fish Relocation? ☐ Mussel Relocation? ☐	✓		
2.	Is this resource a designated a wild or stockable trout stream?			✓
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?	✓		
5.	Was excess material not needed for backfill removed and disposed of in an upland area?	✓		
6.	Was the top 12-inches of backfill made with clean native stream substrate?	✓		
7.	Was the pre-construction survey data utilized during restoration in attempt to re-establish pre-construction contours?		✓	
8.	Were any field modifications to the stream implemented by project or regulatory personnel to address potential drainage or bank restoration limitations?			✓
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?	✓		
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?	✓		
11.	Was the time of disturbance minimized by conducting resource work continuously to completion?		✓	
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?		✓	
13.	Are bareroot saplings required and/or scheduled to be planted for the dormant season (10/1 – 4/30)?			✓
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.			✓

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*	Gravel	Gravel
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	3-Marginal
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.)*	4-Poor	4-Poor
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, Varied combination of water velocities, 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)*	3-Moderate	3-Moderate

Comments/Remarks

Please note that this report is for a culvert replacement along an approved MVP access road. This stream was not crossed during active pipeline construction, therefore, no report was generated.

10/09/2024- Pre-construction meeting was held and discussion of the methodology to be implemented during the culvert replacement operations was confirmed. All work will be conducted in the dry stream, all flowing water will be dammed and pumped in to an energy dissipator downstream. Pre-construction photo documentation and assessment was completed. -A. Breeding

Item #4 marked poor due to stream flowing underneath gravel access road with no vegetation.

10/11/2024- Energy dissipater was constructed and dam and pumps were located on site. Soils were separated and the old culvert was removed. The new culvert was installed with appropriate countersinking measures implemented. The culvert was backfilled and appropriate soils restored. Post-construction photos and assessment were completed. There were no impacts to biological conditions observed during the culvert removal activities. -A. Breeding

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	Alyson Breeding *Print Name*	Alyson Breeding *Signature*	10/11/2024 *Date*

Required Photos

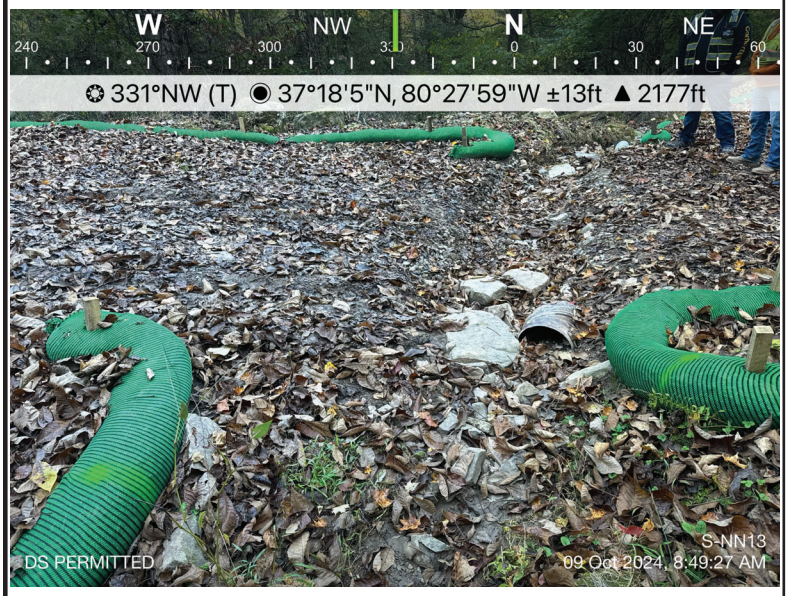

Photo Description: Downstream view of permitted impact area during pre-construction assessment.

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.

Optional Additional Photos

Photo Description:
Building energy dissipator.

Photo Description:
Removing old culvert.

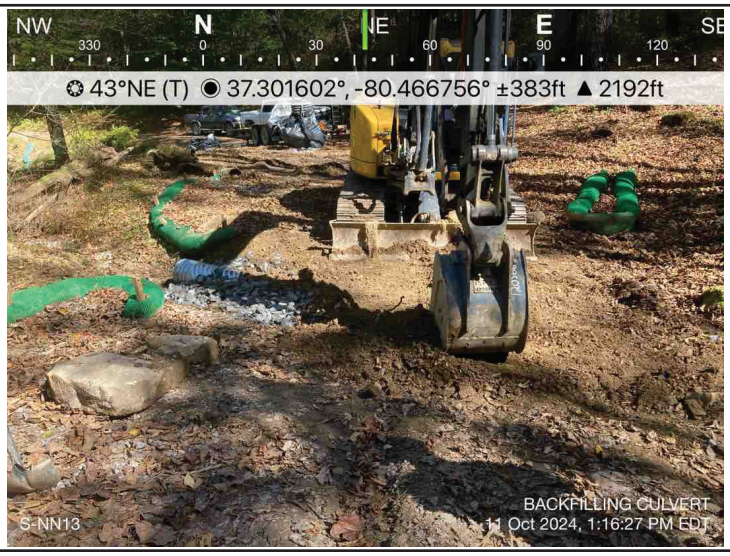

Photo Description:
Backfilling around new culvert.

Photo Description:
Culvert backfill complete.