STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-A34	**Crossing Start Date:** 11/30/2023	**Crossing Completion Date:** 12/22/2023
Milepost: 205.4	**Pre-Con Assessment Date:** 11/20/2023	**Post-Con Assessment Date:** 12/22/2023
Station: 10762+63	**Stream Classification:** Ephemeral **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 7
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-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	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-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	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

11/20/2023- Pre-construction meeting held and assessment complete. MVP EI is Adam Taylor. This crossing will be completed at the same time as S-A33. -A. Breeding

Item #15: 50/50 mixture of cobble and boulder.

11/27/2023- Pre-construction meeting held for new tie in crew. MVP EI is Adam Taylor. This crossing will be completed at the same time as S-A33. -A. Burgess

11/30/2023- Removed topsoil and began drilling shot holes. -C. Stanley

12/1/2023- Drilled shot holes. -C. Stanley

12/2/2023- Finished drilling shot holes. -C. Stanley

12/4/2023- Blasted. The blast shifted both timber mat bridges. Started replacing bridge today. No impact to biological conditions. -C. Stanley

12/5/2023- Rebuilt the bridge, had to wait on timber mats to be delivered. -C. Stanley

12/6/2023- Rock hammered and trenching. -C. Stanley

12/7/2023- Rock hammered and trenching continues, second rock hammer brought in during the afternoon. -C. Stanley

12/8/2023- New bit put on rock hammer, rock hammering and trenching continues. -C. Stanley

12/9/2023- Rock hammered and trenching continues. -C. Stanley

12/11/2023- Drilled shot holes and blasted last section, Rock hammered and trenching continues. -C. Stanley

12/12/2023- Rock hammered and trenching continues, started welding on first pipe section, welder had issues needing a technician to fix. -C. Stanley

12/13/2023- Rock hammered and trenching continues, lowered and finished welding on second pipe section. -C. Stanley

12/14/2023 -Rock hammered and trenching continues, padding added to trench to help stabilize the pipe. -C. Stanley

12/15/2023- Installed last section of pipe and finished welding, X-ray completed on all 3 welds. -C. Stanley

12/16/2023- Fixed one weld and X-ray completed, sandblasted and coated 2 welds, and more padding added. -C. Stanley

12/18/2023- Installed trench breakers and padding backfilled around them. -C. Stanley

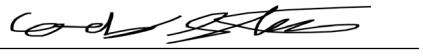
12/19/2023- Pipe padding continues. Backfill operations slower than usual due to travel time between stockpiles and backfill location. -C. Stanley

12/20/2023- Started backfilling trench. -C. Stanley

12/21/2023- Completed final contouring, restored stream substrate, restored buffer topsoil, and seeded and stabilized topsoil. -C. Stanley

12/22/2023- Dam and pump removed and flow restored. No impacts to biological conditions or unauthorized discharges were observed. Post-construction auditor assessment completed. -C. Stanley

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	Cody Stanley *Print Name*	 *Signature*	12/22/2023 *Date*

Required Photos

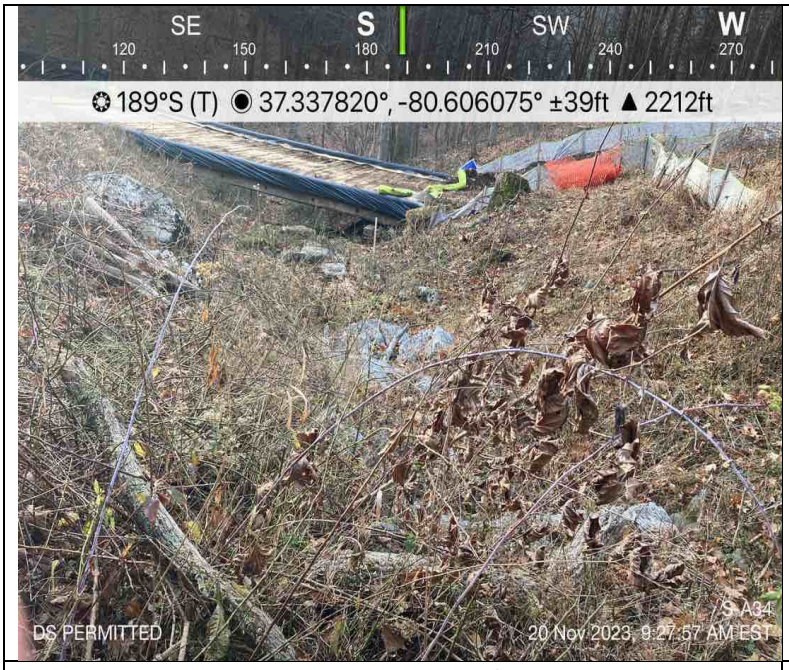


Photo Description: Downstream view of permitted impact area during pre-construction assessment.

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: Dam and pump installed and functional throughout crossing.

Photo Description: Downstream dam and energy dissipator.

Photo Description: Dewatering structure installed and functional throughout crossing.

Photo Description: Stabilization being applied by environmental crews.