STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-D1-EPH	**Crossing Start Date:** 10/26/2023	**Crossing Completion Date:** 10/30/2023
Milepost: 285	**Pre-Con Assessment Date:** 10/16/2023	**Post-Con Assessment Date:** 10/31/2023
Station: 15055+95	**Stream Classification:** Ephemeral **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 10
County: Pittsylvania	**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?	Flume		
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*	Mud/Silt/Clay	Mud/Silt/Clay
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)*	4 - Poor	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.)*	1 - Optimal	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

Comments/Remarks

10-16-23: Pre-construction meeting was held and the stream crossing pre-assessment was completed. The MVP EI is Dave Johnston and the Precision Foreman is Bill "Scooter "Martin. -G. Aceves

Item #8: Restoration of the stream bed will be a 3:1 slope return and resource modification as necessary due to the current stream erosion.

10-16-23: Pre-crossing meeting with Frank Craycroft LEI and Rob Seebeck to discuss existing active head cut and bare banks. Encompass will do a comparative survey. Scour protection detail to be provided by WSSI. Banks will be sloped back to a stable condition and thalweg will be smoothed to avoid replacing soil cascades that are unstable. -J. Greene

10-26-23: Excavation of the upland and stream soil. The Top 12-inches of streambed substrate was segregated and stockpiled separate from the trench soil. Excavated the trench, exposing the end of the pipe. Stabilized the pipe in the trench, connected the pipes with welds. The surveyors verified the correct depth of pipe. The crew began backfilling the trench. -G. Aceves

10-27-23: Continued backfilling the trench. The survey crew staked out the stream. Welded the CIS tie-in pipe. Established the slope of the stream. The environmental crew restored stream topsoil. The survey team verified the stream slope. The stream slope was established at a 2.5:1 slope due to previous erosion. The environmental crew seeded with riparian seed and covered the site with erosion control matting. Installed the CIS trench breakers. -G. Aceves

10-28-23 Positioned the tie end pipe and welded the ends to together. -A. Rauls

10-30-23 Completed work on the tie in pipe located on the GAS of stream channel. Work included cutting, welding, sand blasting and coating activities. Installation of the GAS trench breaker. Restoration of the 50-foot buffer on the GAS side to be completed tomorrow, 10-31-23. -B. Fennell

10-31-23: The environmental crew established the 50-foot buffer on both the GAS and the CIS. A post construction auditor assessment was completed. -G. Aceves

No unauthorized discharges or impacts to biological conditions were observed during the crossing.

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	George Aceves *Print Name*	 *Signature*	10/31/2023 *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.

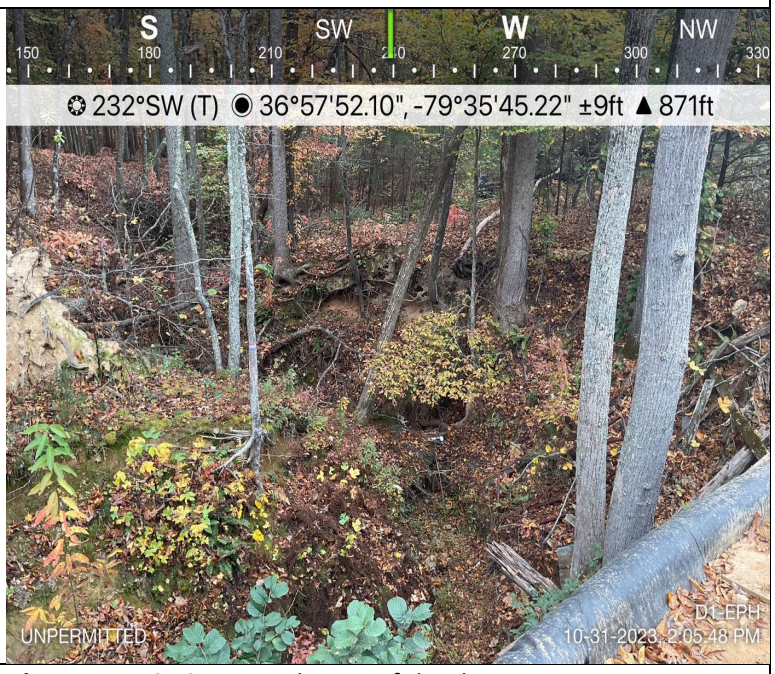

Photo Description: Conditions of the downstream area outside the ROW during post-construction assessment.

Optional Additional Photos

Photo Description: Excavation of the trench.

Photo Description: Surveying the stream for site restoration.

Photo Description: Restoration of the stream bed and banks.

Photo Description: The site after the application of seed and erosion control matting.