STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-H5	**Crossing Start Date:** 11/06/2023	**Crossing Completion Date:** 11/09/2023
Milepost: 302.1	**Pre-Con Assessment Date:** 10/28/2023	**Post-Con Assessment Date:** 11/10/2023
Station: 15962+32	**Stream Classification:** Perennial **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 8
County: Pittsylvania	**303(d) Impairment Listing:** 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? Yes 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*	Mud/Silt/Clay	Mud/Silt/Clay
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)*	4 - Poor	4 - Poor
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	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

Pre-Construction auditor assessment on 10-28-2023
EI: D. Wilson, PPL Foreman: J. Rogers
Plan to start resource crossing potentially between 11-02-23 & 11-06-23.
This resource is being crossed and monitored by the environmental auditor in conjunction with adjacent wetlands W-H1, W-H2, and W-H3.

10-30-2023: Excavating in the upland areas to expose loose ends on GAS & CIS. Welding.

10-31-2023: Excavating trench in upland area, and prepping workspace for soil segregation.

11-01-2023: Soil segregation. Excavating to expose loose ends on both CIS/GAS.

11-02-2023: Inactive, no work in the resources.

11-03-2023: Excavating trench through wetland resources. Lowered FBE pipe in trench, welding afterwards.

11-04-2023: Inactive, no work in the resources.

11-05-2023: Inactive, no work in the resources.

11-06-2023: Edge Engineering on-site for fish relocation. Dam and pump that was installed malfunctioned, but a secondary pump was on-site and replaced malfunctioning pump. Energy dissipator functioning, and dewatering structure installed and operating. Contractor waiting for permission from project personnel to install an additional dewatering structure.

11-07-2023: Dewatering structure was determined to not be needed. Trenchbreakers were installed on both sides of crossing and backfill of subsoil began.

11-08-2023: Banks restored with topsoil, and stream substrate was reapplied. Seed mixes and erosion control matting installed. Dam & pump removed, and flow restored to the resource.

11-09-2023: Restoration of 10/50ft buffer zones, riparian seed and straw mulch applied.

11-10-2023: Post-construction auditor assessment completed.

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	Violet Smith *Print Name*	 *Signature*	11/11/2023 *Date*

Required Photos

Photo Description: Upstream 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: Stream bed topsoil stockpiled separately on geotextile fabric.

Photo Description: Energy dissipator installed and operating for pump around.

Photo Description: Dewatering structure installed and operational throughout crossing.

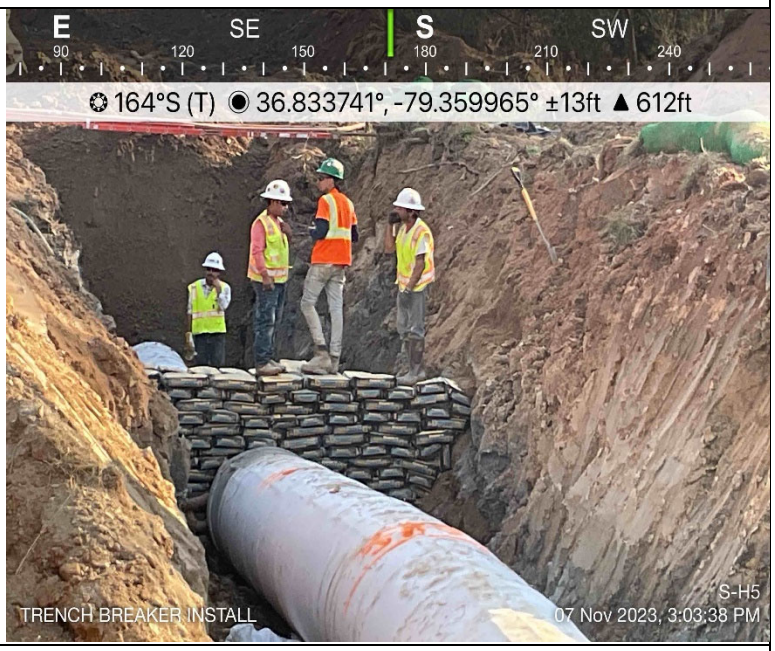

Photo Description: Trenchbreakers installed within trench prior to backfilling.