STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-D4	**Crossing Start Date:** 03/25/2024	**Crossing Completion Date:** 04/02/2024
Milepost: 284.4	**Pre-Con Assessment Date:** 03/22/2024	**Post-Con Assessment Date:** 04/02/2024
Station: 15027+37	**Stream Classification:** Intermittent **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 6
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?	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)*	2 - Suboptimal	2 - Suboptimal
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.)*	2 - Suboptimal	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)*	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

03-22-24: Auditor pre-construction assessment completed. The MVP E.I. is Keith Davis, and the Precision Pipeline foreman is William R Martin. The pipe will be excavated for replacement due to an anomaly detected in the pipe. The topsoil was excavated from the 50-foot buffer zone on the right side and stockpiled in an upland area. Excavation began to expose the pipe. -D. Fraise

03-25-24: An excavator removed topsoil from the 10-foot buffer zone on the right bank and stockpiled the material on top of the subsoil. The excavator began hammering inside of the 10-foot buffer zone. A dewatering structure was constructed, and a 3-inch pump was installed. Hammering was continuous in the trench. -D. Fraise

03-26-24: The trench was dewatered into the constructed structure. The E.I informed the auditor that water had undermined the filter sock at LOD and entered the stream. No sediment accumulation was evident in the stream although the water showed signs of turbidity. The issue was immediately addressed by repairing controls and installing geotechnical plastic and directing the flow through additional vegetation. The stream flow resolved and returned to normal flow conditions. Rock hammering continued in the trench. No impacts to biological conditions or unauthorized discharges observed. -D. Fraise

03-27-24: The site was inactive. -D. Fraise

03-28-24: Rock hammering continued. The dewatering structure was functioning as designed. The crew exposed the pipe and began removing the pipe anomaly. -D. Fraise

03-29-24: The dewatering structure was functioning as designed. The crew prepared to weld the pipe. -D. Fraise

03-30-24: The pipe was welded. The dewatering structure and pump were functioning as designed. -D. Fraise

03-31-24: The site was inactive. -D. Fraise

04-01-24: Pipe welding continued. The pipe was x-rayed and passed inspection. The pipe was then sandblasted, coated, and jeep tested. A trench breaker was installed. -D. Fraise

04-02-24: The site was backfilled and graded. Topsoil was returned, seeded, and mulched. Filter sock was replaced at the 10- and 50-foot buffer zone. The dewatering structure was deconstructed, and all equipment was removed from the site.
-D. Fraise

Item #7: Survey crew was not on-site during restoration of resource banks to re-establish pre-existing contours.

04-05-24: Post-construction auditor assessment completed. – D. Fraise

No impact to biological conditions or unauthorized discharge, were observed during the crossing activities.

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	Darrell Fraise *Print Name*	Darrell F. *Signature*	04/05/2024 *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: The trench breaker was installed along the pipe.

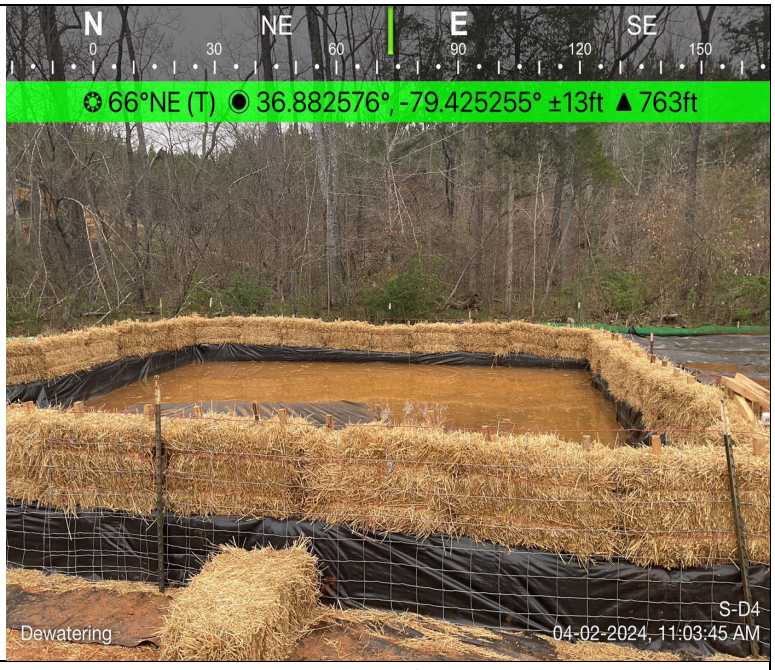

Photo Description: An overview of the dewatering structure utilized during work activities.

Photo Description: Pipe being transported to the trench for anomaly replacement.

Photo Description: An overview of the dam and pump during hammering activities.