STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-C24	**Crossing Start Date:** 11/03/2023	**Crossing Completion Date:** 11/16/2023
Milepost: 230.2	**Pre-Con Assessment Date:** 11/01/2023	**Post-Con Assessment Date:** 11/16/2023
Station: 12166+47	**Stream Classification:** Intermittent **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 3
County: Montgomery	**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*	Gravel (0.1-2")	Gravel (0.1-2")
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)*	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

11-1-2023- EI on-site is Dylan Hooper and Foreman is Scott Moore. Contractor stated that the anticipated start date is 11/6/2023. -S. Manzo

11-3-2023- Installed the upstream and downstream dams for flume crossing. Removed topsoil and substrate and started trenching and hit rock. Blasting operations needed for further excavation. -S. Manzo

11-4-2023- Drilled holes for dynamite and blasted rock. -S. Manzo

11-6-2023- Trenched through 50ft buffer and stream section. -S. Manzo

11-7-2023- No work done in the stream. Lowered pipe and started welding outside 50ft buffer. -S. Manzo

11-8-2023- Backfilled going-away-side of trench then trenched again and made it wider to fit the pipe. -S. Manzo

11-9-2023- No in stream activity. Clean up and prep for rain. - T. Cullop

11-10-2023- No in stream activity. Waiting for pipe to be re-engineered. - T. Cullop

11-11-2023- No in stream activity. Waiting for pipe to be re-engineered. - T. Cullop

11-13-2023- Pipe was lowered-in and welded together. Stream was flumed over night and maintained throughout crossing. -T. Cullop

11-14-2023- Pipe tied-in and final welding complete. Back filling outside of 50’ buffer began. Anticipate stream restoration to begin tomorrow. - M. Smith

11-15-2023- Upland pipe backfilled. Resource backfilled to grade (surveyed and staked out) ready to receive stream media for restoration. Stream flumed overnight. - M. Smith

11-16-2023- Stream was restored to pre-existing conditions and stabilized. Post-construction auditor assessment was completed. All biological conditions were maintained throughout the crossing, and no unauthorized discharges were observed. -T. Cullop

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	Tanner Cullop		11/22/2023
	Print Name	*Signature*	*Date*

Required Photos

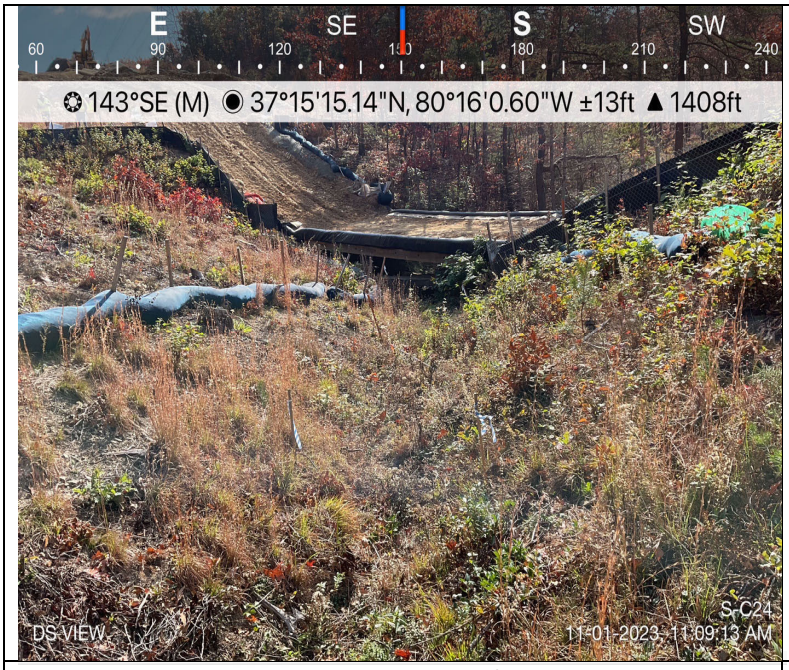

Photo Description: Downstream view of permitted impact area during pre-construction assessment.

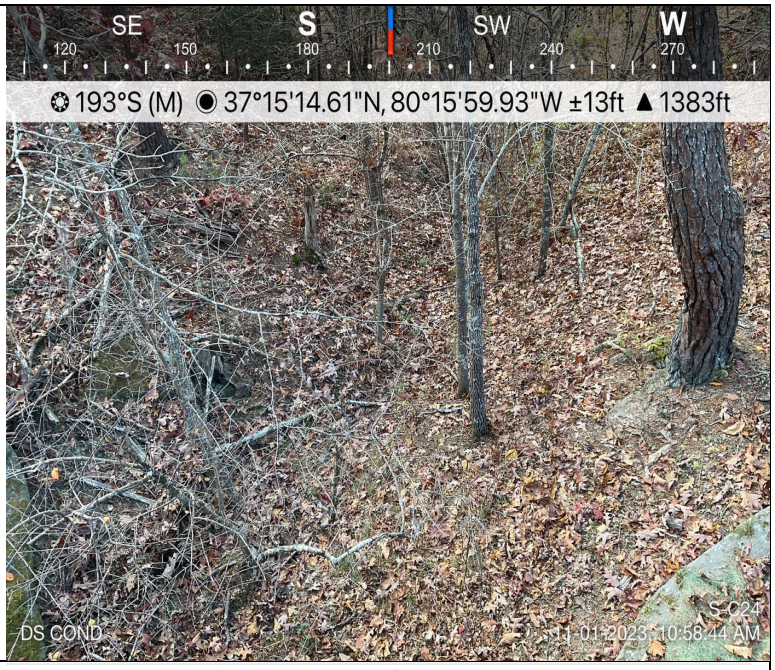

Photo Description: Conditions of the downstream area outside the ROW during pre-construction assessment.

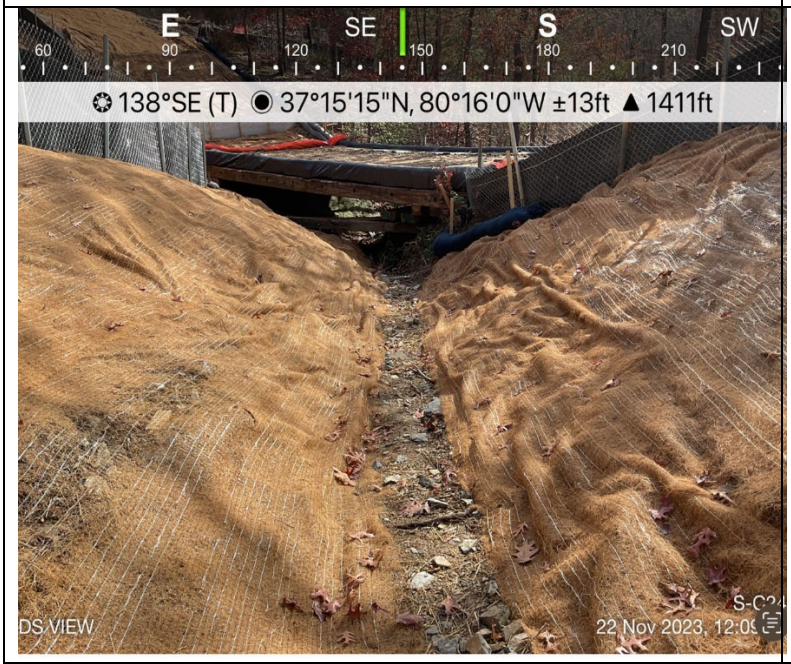

Photo Description: Downstream view of permitted impact area during post-construction assessment.

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

Optional Additional Photos

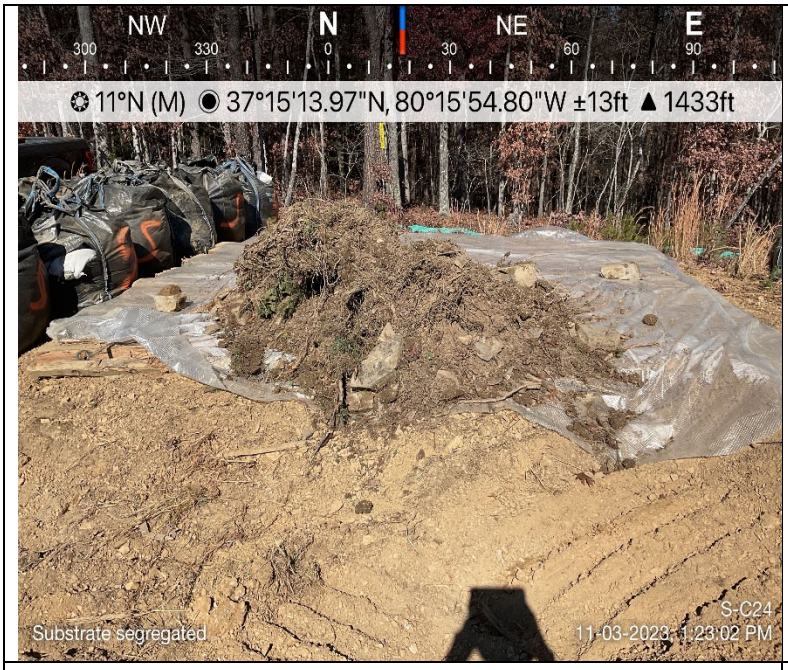

Photo Description: Streambed substrate/topsoil was stripped and segregated.

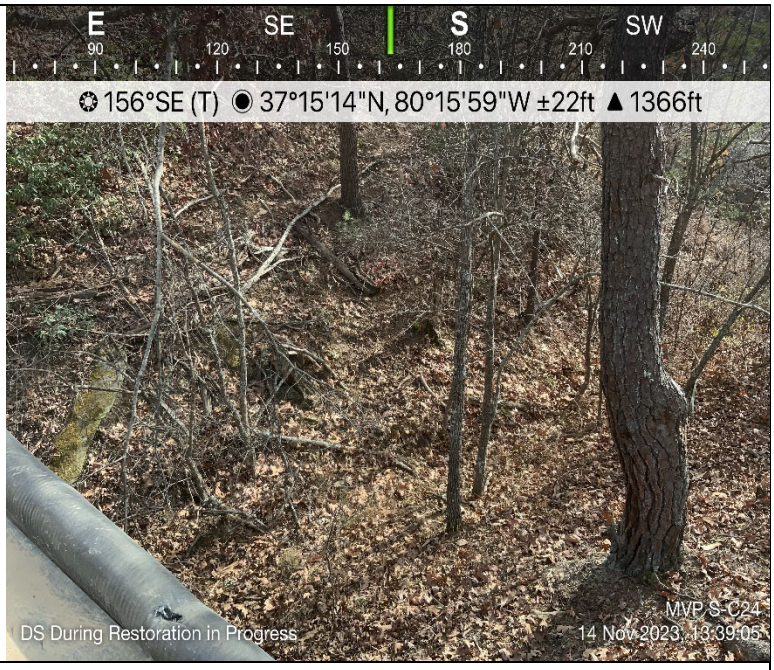

Photo Description: Conditions of resource downstream from impact area during restoration. No impacts to biological conditions or unauthorized discharges were observed during the crossing.

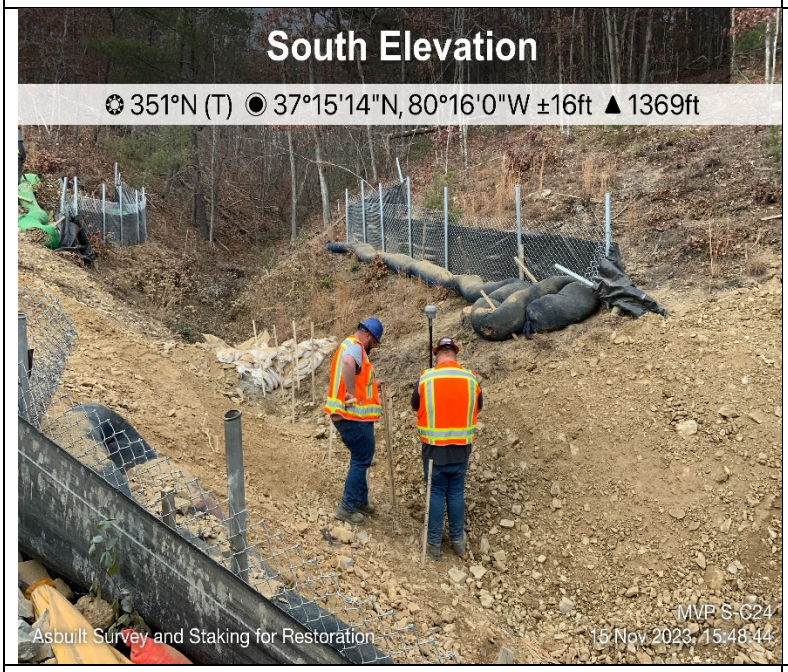

Photo Description: Survey staking out for restoration.

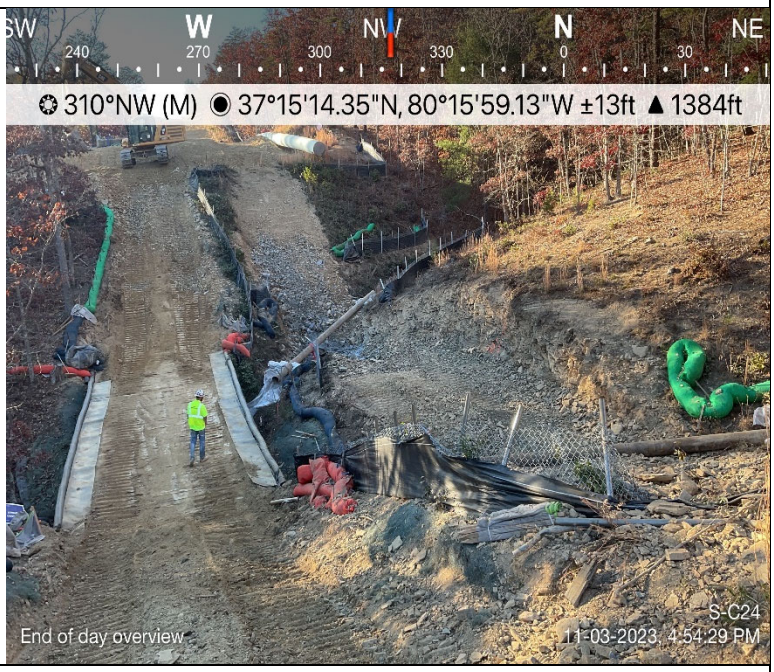

Photo Description: Conditions of the resource impact area at the end of a workday. Flume remains installed and operational.