STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-II2	**Crossing Start Date:** 10/19/2023	**Crossing Completion Date:** 10/28/2023
Milepost: 263.4	**Pre-Con Assessment Date:** 10/18/2023	**Post-Con Assessment Date:** 10/30/2023
Station: 13915+82	**Stream Classification:** Perennial **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 60
County: Franklin	**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*	Bedrock	Bedrock
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	1 - Optimal
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	1 - Optimal
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)*	1 - Optimal	1 - Optimal
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

10-18-23: Pre-construction meeting. The lead MVP EI will be F. Craycroft and the Precision Foreman is J. Rodgers. The MVP EI will be replaced by D. Wilson (MVP EI) on 10-19-23. V. Smith will be the EA auditor on site.
The tentative plan is to break ground on 10-19-23. This will be an open cut with a fish relocation. The dewatering structure location was verified and will be set up just beyond the RB. A bladder dam and pump will be used during construction. The bedrock will be blasted, hammered, and drilled. The top 12-inches of substrate will be segregated then trench will be excavated. The stream banks will be cleared for the dam and pump installation of the left US bank. It is feasible that the banks may have to be graded to install the pumps on the RB. The restoration plan is to (riparian)seed and mulch. The banks will be restored in more stable angle of repose.
-V. Smith

10-19-2023: Construction within resource is inactive. Welding was occurring in the upland ROW, outside of the 10- and 50-foot buffer. Began excavating soil (potholes) prepping for the installation of the bladder pump, dam, and dewatering structure. -V. Smith

10-20-2023: Dewatering structure was installed. Construction is active in the adjacent areas and blasting operations have started. Prep activities were occurring outside of 10- and 50-foot buffer. Bladder dam and pump were not yet installed. -V. Smith

10-21-2023: Construction is active. Blasting continued. An additional dewatering structure was installed. Site prep was occurring within the 10-foot buffer. All the pumps and generators on site were within secondary containment. Turbidity curtains have been installed on the RB and LB. Topsoil was excavated and the RB was graded to the high-water line on the stream bed within the 10-foot buffer. Fish relocation tomorrow. -V. Smith

10-22-2023: Fish relocation has begun. Nets installed for attempted isolation of fish within future impact area.
-V. Smith

10-23-2023: Bladder pump and dam were installed. Fish location crew returned to relocate any isolated fish. The crew began drilling and the dewatering structure and pump are operational. -V. Smith

10-24-2023: The dewatering structures, pumps, and bladder dam are operational. Drilling in the stream bed continues. The crew performed another blast, and no unauthorized discharges were noted. Temporarily a small amount of turbidity was visible post-blasting but cleared and did not persist. Trench was excavated, and welding occurred with the FBE Pipe tied into CIS pipe loose end.
The filter bag was observed to have failed within its containment. Turbid water was observed within the structure, but subsequently passed through additional sediment control measures. Upon further observation, there was no unauthorized discharge or accumulated material, and no adverse effect to biological conditions were observed at time of inspection. The filter bag was replaced, and another dewatering structure was installed as an additional control. All controls are installed and operational. Hoses are in place and pumps are active/operational. MVP and DEQ were onsite during the dewatering bag failure and repair. –V. Smith

10-25-2023: Welding occurred and the FBE was tied in on the GAS. -V. Smith

10-26-2023: The trench was backfilled, and a trench breaker was installed on the CIS. The crew continued to weld and x-ray on the GAS. A trench breaker was installed on the GAS. Backfilled the pipe and trench on the CIS. No

turbidity was observed, and the DS water appeared clear. Backfilled the stream bed on the RB. The RB was restored. -V. Smith

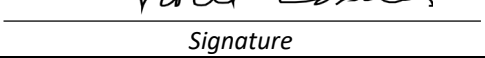
10-27-2023: Seeding, straw mulch and erosion matting were installed on the RB. LB restoration is in progress. The stream bed was backfilled to the pre-existing elevations as measured by the survey crew. Restoration to the stream bed, topsoil, and substrate continued. Erosion control matting, seed, and straw mulch was installed. Restoration of the resource is complete, and the crossing was returned to its optimal condition. -V. Smith

10-30-2023: Post-construction auditor assessment was completed. -V. Smith

Item #10: Due to the size of the bladder dam, an excavator had to be staged on the denuded left bank while the stream flow was returned to the resource. A turbidity curtain was installed along the left bank while final restoration activities (final grade, seed, & stabilization) of the bank were completed. No adverse impacts to biological conditions were observed.

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	Violet Smith *Print Name*	 *Signature*	10/30/2023 *Date*

Required Photos

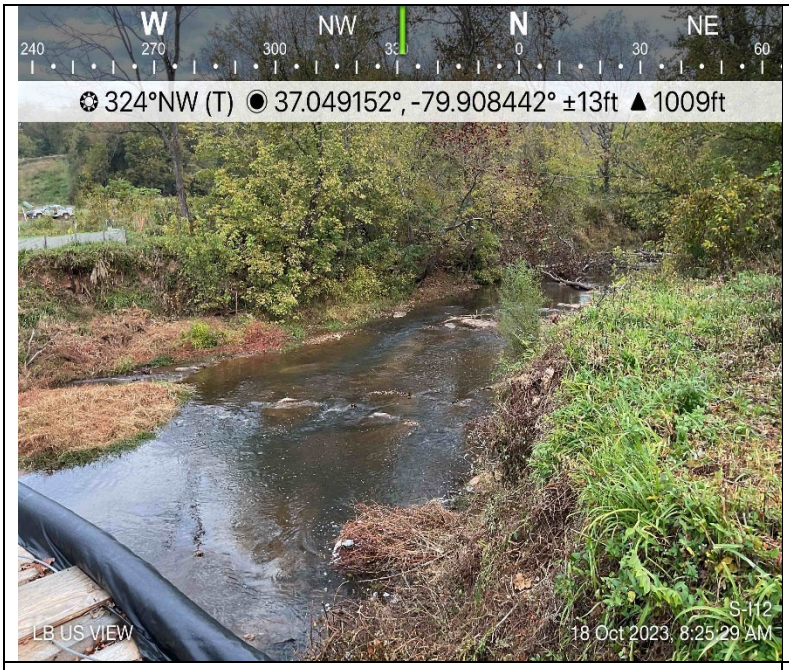


Photo Description: Upstream view of permitted impact area from left bank during pre-construction assessment.

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

Photo Description: Upstream view of permitted impact area from left bank during post-construction assessment.

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

Optional Additional Photos

Photo Description: Bladder dam and pump installation.

Photo Description: Item #10: Left bank was not seeded and stabilized prior to re-establishing flow. Turbidity curtain installed while LB restoration was completed. Equipment had to work from left bank to remove upstream bladder dam.

Photo Description: A crew on site to remove fish from the stream prior to construction.

Photo Description: The application of seed and straw mulch buffer zones during site restoration.

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Photo Description: Bladder dam and pump removal. Item #10: Left bank was not seeded and stabilized prior to re-establishing flow. Turbidity curtain installed while stabilization applied. Equipment had to work from left bank to remove upstream bladder dam.

Photo Description: Discharge point for dam and pump around. Dam and pump around maintained throughout crossing activities.

Photo Description: 4 dewatering structures were used throughout crossing, and bags were changed out daily as required. One filter bag failed during crossing, but water was still filtered by secondary controls prior to leaving the LOD.

Photo Description: Off-site downstream conditions of resource during construction. No significant increase in turbidity from dam and pump around was observed.