STREAM BIOLOGICAL CONDITIONS
ENVIRONMENTAL AUDITOR REPORT

Version 2.3

Wetland Studies and Solutions, Inc.® a DAVEY company

Stream ID: S-CD6	**Crossing Start Date:** 10/09/2023	**Crossing Completion Date:** 10/18/2023
Milepost: 262.6	**Pre-Con Assessment Date:** 10/09/2023	**Post-Con Assessment Date:** 10/19/2023
Station: 13874+96	**Stream Classification:** Perennial **(Perennial, Intermittent, Ephemeral)**	**Bankfull Width (ft.):** 70
County: Franklin	**303(d) Impairment Listing:** Impaired	**Riffle:Pool Complexes Present?** Yes

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*	Gravel (0.1-2")	Sand (<0.1")
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)*	1 - Optimal	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.)*	3 - Marginal	3 - Marginal
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)*	2 - Suboptimal	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)*	1 - Negligible	1 - Negligible

Comments/Remarks

9-30-2023: Pre-Con meeting. MVP EI is J. Parker. Precision Foreman is J. Rodgers. The crossing method is an open cut. During the meeting, soil storage and segregation was discussed. A dam and pump will be utilized. Photos were taken upstream instead of downstream as site conditions allowed (steep slopes, vegetation, and LOD limitations). -S. Canfield

10-2-2023: Plan to begin excavation Thursday, 10-5-23. Discussed drilling the 50-foot buffers up to the 10-foot zone. Beginning the installation of the pumps for the pump around. -A. Thorpe

10-3 to 10-8-2023: Crew changed plans and resource crossing did not start on 10-5 as originally planned. No activity in the resource area.

10-9-2023: New pre-construction auditor assessment completed. Fish relocation in progress, drilling and blasting on the GAS of stream outside the 10-foot buffer. Bladder dam and pump around installed, energy dissipation system installed, dewatering of stream bed channel. Plan to enter the stream and 10-foot buffer on Tue 10-10-23. -B. FENNELL

10-10-2023: Stream crossing began, stripping and stockpiling of soils, continued sandbag reinforcements of bladder dams. Top 12-inches of substrate segregated & covered. Top 10-inches of topsoil was segregated. DEQ third-party inspectors from MBP were onsite. Drilling and blasting efforts occurred due to heavy rock presence. -B. FENNELL

10-11-2023: DEQ & MBP present onsite. A fourth pump was added. Continuation of drilling and blasting. -K. DOUGLAS

10-12-2023: MBP present. Secondary trench pump installed on the bridge. Bedrock removal occurred on both sides of stream and trenching began. -K. DOUGLAS

10-13-2023: DEQ & MBP present onsite. Continuation of trenching & bedrock removal on both sides of the resource. Use of a second pump in trench was discontinued. Sandbags installed. Pipe lowered into position. Welding completed (CIS). -K. DOUGLAS

10-14-2023: DEQ & MBP present onsite. Trench breaker installed (CIS). Backfilling began. The survey crew was onsite for the restoration of the stream bed & bank contours. Banks were stabilized with seed & erosion control matting. -K. DOUGLAS

10-16-2023: MBP present. Pipe prepped to be cut & welded (GAS). Awaiting the installation of the final trench breaker. -K. DOUGLAS

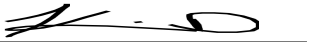
10-17-2023: DEQ & MBP present. Final welds, X-ray & jeep testing QC completed (GAS). Final trench breaker installed (GAS). Began padding backfill with the shaker bucket. Restoration of 50-foot buffer anticipated for 10-18-23. -K. DOUGLAS

10-18-2023: 50-foot buffer restored. -K. DOUGLAS

10-19-2023: Post-construction auditor assessment conducted. -K. DOUGLAS

No impacts to biological conditions or unauthorized discharges 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	Keith Douglas *Print Name*	 *Signature*	10/19/2023 *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: Overview of the dewatering operations.

Photo Description: Fish relocation in progress.

Photo Description: Lowering the pipe in the trench.

Photo Description: Trench breaker installed.