Wetland

Studies and Solutions, Inc.

a DAVEY € company

Version 2.3

Stream ID: S-G25	Crossing Start Date: 08/23/2023	Crossing Completion Date: 09/20/2023	
Milepost: 246.5	Pre-Con Assessment Date: 08/21/2023	Post-Con Assessment Date: 09/20/2023	
Station: 13024+08	Stream Classification: Intermittent (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 7	
County: Franklin	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)? <u>Yes</u> Fish Relocation? <u>Yes</u> Mussel Relocation? <u>N/A</u>		Х	
2.	Is this resource designated a wild or stockable trout stream?			Χ
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?		& Pump,	Flume
4.	Was the top 1-foot (12-inches) of streambed substrate segregated and stockpiled separate from trench			
5.	Was excess material not needed for backfill removed and disposed of in an upland area?			
6.	6. Was the top 12-inches of backfill made with clean native stream substrate?			
7.	7. Was the pre-construction survey data provided and utilized during restoration in attempt to re-estab pre-construction contours?		Х	
8.	Were any field modifications to the stream implemented by project or regulatory personnel to address potential drainage or bank restoration limitations?			Х
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?		Х	
10.	Was permanent seed and stabilization material (straw or matting) applied to riparian areas and stream		Х	
11.			Х	
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?		Х	
13.	Are bareroot saplings required and/or scheduled to be planted for the dormant season $(10/1 - 4/30)$?			Х
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.			Х

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")
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	3 - Marginal
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)		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

Version 2.3



Comments/Remarks

On-site crossing EI is Matt Futkos. This resource crossing was performed in conjunction with S-G24 & W-ST2-PEM.

- 8/21/23- Pre-con meeting and pre-con assessment. -S. Frost
- 8/22/23- No work in the resource. -S. Frost
- 8/23/23- Trenching outside and inside of the 50 ft buffer. Trench box installed. Trench began to give way in the 50ft buffer area near the timber mats. -S. Frost
- 8/24/23- Second trench box installed in the unstable trench in the 50 ft buffer. S. Frost
- 8/25/23- Work rained out. No work in the resource. S. Frost
- 8/26/23- Pipe lowered into the trench. PI weld not yet made. -S. Frost
- 8/28/23- Rain out. No work in the resources. S. Frost
- 8/29/23- Rain out. No work in the resources. S. Frost
- 8/30/23- Dewatering of trench. Dewatering structure failed, causing sediment to wash off LOD in an upland area that did not impact the resources. New dewatering structure built. S. Frost
- 8/31/23- Dewatering of trench. Blasting prep and operation completed in the steep slope upland area outside of the 50ft buffer. -S. Frost
- 9/1/23- Dewatering of trench. Welds started at the PI outside of the 50ft buffer. S. Frost
- 9/2/23- PI welds completed. X-ray found faults and pipe has to be cut and welded again. -S. Frost
- 9/3/23- Second weld completed. X-ray passed, coated, and jeeped. S. Frost
- 9/4/23- Survey completed. Pipe padded. Backfill completed outside of the 50 ft buffer. Timber mats and geotech fabric placed for wetland and stream bed soil segregation. S. Frost
- 9/5/23- Dam and pump installed. Wetland and stream bed top soiled and segregated. Stop to work called due to bridge repairs needed. -S. Frost
- 9/6/23- Bridge geotech fabric repaired and safe to resume work. S. Frost
- 9/7/23- Rain and lightning in the morning caused a late start. Trenching through wetland W-ST2-PEM. S. Frost
- 9/8/23- ECD prep for rain- S. Frost
- 9/9/23- Trenching through stream and wetland. -S. Frost

Wetland

Situdics and Solutions, Inc®

a DAVEY® company

Version 2.3

9/11/23- Trenching through wetland and streams in 10 ft buffer S. Frost
9/12/23- Trenching continues through 10ft buffer. Prepping pipe to be installed S. Frost 9/13/23- Trenching through 50ft buffer. Prepping pipe to be installedS. Frost
9/14/23- Pipe lowered into trench. Welding, X-ray, coating, jeep tested S. Frost
9/15/23- Partial backfill. Prep for trench breakers S. Frost
9/16/23- Trench breakers installation started S. Frost
9/18/23- Trench breakers finished. Partial backfill S. Frost
9/19/23- Backfill completed. Wetland and stream restoration partially started S. Frost
9/20/23- Wetland and stream restoration completed. Seeding and matting completed. Final grade survey shots. Flow returned to streams. Post-con assessment completed S. Frost
Item #1: Time of Year Restriction: October 1 through March 31.
 tem #2: None, but upstream of trout water (Brown Trout)

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	Summer Frost Print Name	Signatura	09/21/2023 Date
		Signature	

Wetland

Studies and Solutions, Inc.

a DAVEY Company

Version 2.3

Required Photos



Photo Description: Downstream view of permitted impact area during pre-construction assessment. S-G25 converges with S-G24 within the impact area, which then flows off the ROW.

Photo Description: Conditions of the downstream area outside the ROW during pre-construction assessment. S-G25 converges with S-G24 within the impact area, which then flows off the ROW.



Photo Description: Downstream view of permitted impact area during post-construction assessment. S-G25 converges with S-G24 within the impact area, which then flows off the ROW.

Photo Description: Conditions of the downstream area outside the ROW during post-construction assessment. S-G25 converges with S-G24 within the impact area, which then flows off the ROW. Typo in photo, "DS COND", not DS VIEW.

Version 2.3



Optional Additional Photos

NW



Photo Description: Dam and pump around energy dissipator installed and functioning.



Photo Description: Topsoil removal within resource impact area.



Photo Description: Restoration of streambed material into the resource.



Photo Description: Upstream view of resource impact area after restoration.