

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



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|--------------------------|--|---|
| Stream ID: S-G24 | Crossing Start Date: 08/22/2023 | 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.): 6 |
| 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> | | X | |
| 2. | Is this resource designated a wild or stockable trout stream? | | | X |
| 3. | Which crossing methods were utilized during the stream crossing? <i>(Select one or more)</i> Dam & Pump, Flume, Cofferdam, Conventional Bore, Horizontal Directional Drill (HDD) Bore? | | | Dam & Pump, 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): <i>Bedrock, Boulder (>10"), Cobble (2-10"), Gravel (0.1-2"), Sand (<0.1"), Mud/Silt/Clay</i> | Cobble (2-10") | Cobble (2-10") |
| 16. | Channel Conditions: Rating: 1-Optimal (80-100% stable banks), 2-Sub-optimal (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 | 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-Sub-optimal (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) | 1 - Negligible | 1 - Negligible |

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Comments/Remarks

EI on-site is Matt Futkos. This resource crossing was performed in conjunction with S-G25 & W-ST2-PEM.

8/21/23- Pre-Con meeting and assessment - S. Frost

8/22/23- No work in the resource. -S. Frost

8/23/23- Trenching outside and inside the 50 ft buffer. Trench box installed at PI. Trench began to give way inside the 50 ft buffer near the timber mats. Crew ordered another trench box and backfilled the unstable trench area. -S. Frost

8/24/23- Trench box delivered after noon. Crew installed second trench box in the 50 ft buffer. - S. Frost

8/25/23- Rained out. No work in the resource. -S. Frost

8/26/23- Pipe lowered into 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 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- Top of pipe survey completed. Pipe padded. Backfill completed outside of the 50ft 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. Work stoppage called due to bridge repairs needed. - S. Frost

9/6/23- Bridge repaired and work resumes. - S. Frost

9/7/23- Rain and lightning event caused a late start. Trenching started in wetland. Prep from rain event. Evening rain caused an early stop to work. - S. Frost

9/8/23- Flume installed. Prep for anticipated rain events. -S. Frost

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9/9/23- Dewatering trench. Flume removed. Dam and pump functioning. Trenching through stream and wetland. Early work stoppage due to rain. -S. Frost

9/11/23- Trenching through wetland and streams. -S. Frost

9/12/23- Trenching continues through 10ft buffer into 50 ft buffer on opposite side of resources. - S. Frost

9/13/23- Trenching through 50 ft buffer. Prepping pipe to be installed. -S. Frost

9/14/23- Lowering pipe into trench through wetland and streams. -S. Frost

9/15/23- Partial backfill. Prep for trench breakers. -S. Frost

9/16/23- Trench breaks installed. -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 and stabilized. Final grade survey shot. Flow returned to streams. Post Con assessment completed. -S. Frost

Item #1: Time of Year Restriction: October 1 through March 31.

Item #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.

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| <i>This report was written by</i> | Summer Frost <hr style="width: 80%; margin: 0 auto;"/> <i>Print Name</i> | <hr style="width: 80%; margin: 0 auto;"/> <i>Signature</i> | 09/21/2023 <hr style="width: 80%; margin: 0 auto;"/> <i>Date</i> |
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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. Typo in photo, "DS COND", not DS VIEW.

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Optional Additional Photos



Photo Description: Stripping of topsoil and stream substrate for stockpiling.



Photo Description: Streambed substrate segregated and stockpiled on timber mats.



Photo Description: Rough backfill and grading of stream channels.



Photo Description: Survey crew on-site assisting with stream contours during restoration.