

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-DD4-Braid-1	Crossing Start Date: 10/31/2023	Crossing Completion Date: 11/20/2023
Milepost: 298.3	Pre-Con Assessment Date: 10/25/2023	Post-Con Assessment Date: 11/22/2023
Station: 15757+93	Stream Classification: Intermittent (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 6
County: Pittsylvania	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>N/A</u> Fish Relocation? <u>N/A</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	
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>	Mud/Silt/Clay	Mud/Silt/Clay
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	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	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)	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

10-25-23: The pre-construction meeting was held. The MVP EI is Heath Benard, and the Precision Pipeline foreman is James Ganson. This resource crossing is to be a temporary impact/crossing, and will remain open and maintained while the adjacent railroad is bored. Construction activities on-site will include both open-cut and trenchless crossing equipment. Due to landowner modifications since permitting, the resource S-DD4-Braid-1 was combined with the adjacent delineated S-DD4, upstream & west of the railroad. There is another S-DD4 crossing further down the ROW on the eastern side of the railroad. This report represents construction activities at the resource crossing for permitted S-DD4 (US) & S-DD4-Braid-1, all west of the railroad. The resource shows signs of bank erosion and sediment deposition within the streambed. -V. Smith

10-28-23: The site is inactive. No resource activity. -V. Smith

10-30-23: The dewatering structure was constructed. -V. Smith

10-31-23: The secondary containments were constructed. The topsoil and stream substrate was excavated and segregated for stockpiling in the upland area on a liner. The crew began hammering in the stream bed. -V. Smith

11-01-23: The crew continued to hammer in the stream bed. -V. Smith

11-02-23: Sheet piling was installed, and the trench boxes were removed. -V. Smith

11-03-23: Completed the installation of the sheet piling (a railroad requirement for track stability), installed the trench boxes, and exposed the top edge of the pipe with an excavator on the G.A.S. The pipe and auger were embedded in rock. Two additional pieces of sheet piling were installed between the pipe and the auger behind the pit. A bore rig was erected to try and push the pipe through the rock. -V. Smith

11-04-23: The casing was freed from the rock. The crews will be working for the next two to three days until the pipe is past the S-DD4-Braid-1 and away from the railroad. The crew plans to backfill in front. They then can dig an exit pit and will begin cutting the casing and pushing the ARO pipe. -V. Smith

11-05-23: Hammering continued and is projected through Tuesday, 11/07. The pit was excavated. The casing and auger were retrieved from the ground and the crew plans to push through the ARO pipe. The environmental, welding and coating inspector visited the site. -V. Smith

11-06-23: Hammering continued. Resource biological conditions remain in good condition. -V. Smith

11-07-23: Hammering. No changes in biological conditions. -V. Smith

11-08-23: No construction activities within the site, the dewatering structure, pump, hoses, and dam is all functioning. The soil remains properly segregated. -V. Smith

11-09-23: The crew is pushing pipe from the DD4-DS side of the railroad. -V. Smith

11-10-23: The crew is pushing, cutting a joint, welding, x-raying, and coating on the DD4-DS side of the railroad. Per a railroad official, survey elevations are taken twice a day. The crew is taking elevation every hour as a

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Version 2.3



precautionary measure. -V. Smith

11-11-23: A meeting was conducted with railroad officials to obtain authorization to push the pipe without grouting the railroad ballast. Precision pipeline was authorized pushing the pipe at DD4-DS. -V. Smith

11-13-23: The crew began excavating the bore exit and prepared for a cut after welding. The x-ray and coating was completed and the pipe pushed through on the DD4-DS side. The railroad has requested that the pipe be grouted. The grout crew came to the site and are preparing to bring in equipment to grout the underground interior corridor for the railroad ballast of the pipeline. -V. Smith

11-14-23 The railroad has determined that grouting will be tentatively scheduled for tomorrow. This morning the crew pushed from the entry bore pit through the exit bore pit. Welding, x-ray, and coating will proceed on S-DD4-US (Braid-1). -V. Smith

11-15-23: The midline pipe pushed through, and no more work can be done until grouting is completed. Welding continues in the upland. The concrete/grout washout station was installed on-site to be used during pouring activities. -V. Smith

11-16-23: Excavating the CIS of the bore pit. The dewatering structure is functioning as designed. -V. Smith

11-17-23: The trench breakers were installed, and backfilling began. Restoration is scheduled for Sunday, 11-19-23. -V. Smith

11-18-23: The crew prepped for blasting, coating, and x-ray. -V. Smith

11-20-23: Site restoration. The crew finished creating the contours of the stream to optimal condition for long term stability, replaced stream substrate, installed erosion control matting, applied seed and straw mulch. -V. Smith

11-21-23: The site is inactive due to weather conditions. The final assessment will be completed after the post-construction meeting. -V. Smith

11-22-23: Post- construction meeting. The resource assessment was completed. The 10-foot buffer has been restored. Awaiting the final tie-in crew. Seed and straw mulch were applied, and erosion control mats were installed. The stream bed was backfilled to the elevations the survey crew provided.

*Restoration of stream bed, topsoil, and substrate. No unauthorized discharge, accumulation of materials outside of resource, or impacts to biological conditions were noted. The crossing was returned to its original function and condition. The stream was restored to its optimal condition. -V. Smith

No impacts to biological conditions or unauthorized discharges were observed during the crossing activity.

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.

<i>This report was written by</i>	Violet Smith <hr style="width: 80%; margin: 0 auto;"/> <i>Print Name</i>	 <hr style="width: 80%; margin: 0 auto;"/> <i>Signature</i>	11/22/2023 <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. Site appears different due to landowner modifications and construction activities since 2018.



Photo Description: Conditions of the downstream area outside the ROW during post-construction assessment. Site appears different due to landowner modifications and construction activities since 2018.

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Optional Additional Photos



Photo Description: The crew installing secondary containment to be used during construction.



Photo Description: The dam and pump energy dissipation device was installed and maintained throughout the crossing.



Photo Description: A trench breaker after installation and during subsoil backfill.



Photo Description: The streambed material was stockpiled separately from subsoil in the upland area on a geotextile liner.