

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-C1	Crossing Start Date: 11/16/2023	Crossing Completion Date: 11/17/2023
Milepost: 299	Pre-Con Assessment Date: 11/13/2023	Post-Con Assessment Date: 11/18/2023
Station: 15794+77	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>	Cobble (2-10")	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)	2 - Suboptimal	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

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Comments/Remarks

11-13-2023: Pre-construction meeting and auditor assessment. The MVP EI is Dustin Wilson, and the Precision foreman is John Roberts. The anticipated start date of the resource crossing is Thursday, 11-16-23. The stream has a low quantity and flow of water, so a 3-inch hose will be used to transport water around the impact area. The steep banks may need to be restored to a more stable angle of repose. -K. Bryant

11-16-2023: The dam, pump, and energy dissipator was installed. The stream bed substrate was removed and stockpiled on Geotech fabric and separated from other spoils. The existing pipe was excavated and both ends were exposed. The trench was excavated, and the subsoil was relayed uphill and stockpiled in the uplands. Sandbags were placed to pad the trench. A section pipe was lowered into the trench. The pipe was lined up and welded on the left bank while the pipe was suspended. -K. Bryant


11-17-2023: The crew was backfilling the 50-foot buffer and padded with native soil. The tie in pipe was welded on the right bank. The trench breakers were installed within 25-feet of the resource. The resource was backfilled with subsoil, then substrate and topsoil. The survey team was present providing restoration as-built support. Stream bank stability ensured with grading and eroded areas were not returned. The stream bank topsoil was restored. Seed and straw matting were applied. -K. Bryant

Item #8: Portions of channel banks were very steep/nearly vertical during pre-construction auditor assessment, and areas of erosion were observed. Eroded areas were graded out during restoration, and banks that were too steep were graded back to a 3:1 slope to ensure long-term stability of the bank.

11-18-2023: The post-construction auditor assessment was conducted. -K. Bryant

No unauthorized discharges or impacts to biological conditions 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>	Kwame Bryant <i>Print Name</i>	 <i>Signature</i>	11/18/2023 <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.



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Optional Additional Photos

South East Elevation

☉ 299°NW (T) ● 36°51.811', -79°23.879' ±4m ▲ 245m



Photo Description: The upland topsoil and stream substrate were removed, segregated, and stockpiled on Geotech fabric.

North Elevation

☉ 171°S (T) ● 36°51.815', -79°23.875' ±4m ▲ 238m



Photo Description: Trench breakers installed on the right bank.



☉ 216°SW (T) ● 36°51.814', -79°23.873' ±4m ▲ 241m



Photo Description: The Dam and pump operation.

North Elevation

☉ 174°S (T) ● 36°51.813', -79°23.891' ±8m ▲ 234m



Photo Description: The survey team is on-site providing as-built support, while the crew begins restoration.