

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-Q2	Crossing Start Date: 10/30/2023	Crossing Completion Date: 02/02/2024
Milepost: 296.6	Pre-Con Assessment Date: 10/30/2023	Post-Con Assessment Date: 02/02/2024
Station: 15669+44	Stream Classification: Perennial (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 7
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?	Conventional 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-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)	4 - Poor	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-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)	4 - Poor	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

10-11-2023: Pre-Construction Meeting at 8am. MVP Environmental Inspector is Billy Bryan and PPL Foreman is Matt Toestinson.

10-30-2023: Pre-construction auditor assessment completed. Bore has been brought to the site, topsoil removed and segregated from buffer areas for bore pit excavation, secondary containment has been set up, dewatering structure has been set up and is functioning, site is now active. -T. Turner Jr.

10-31-2023: Trench digging continued, trench excavation put on standby for install of upland pipe. Secondary containment prep has begun. Boring not successful, will blast in the morning and continue. -T. Turner Jr.

11-01-2023: Rock hammering and drilling continued today. Three separate blasts occurred due to difficult placement of rocks. Crew will begin boring again tomorrow. No further activity. -T. Turner Jr.

11-02-2023: Blasting and excavation of bore pit on the GAS of resource. -T. Turner Jr.

11-03-2023: Trench box installed and excavation for bore machine placement. -T. Turner Jr.

11-04-2023: Bore tracks installed and dewatering structure functional. -T. Turner Jr.

11-05-2023: Bore tracks continue to be installed and dewatering structures functioning as intended. -T. Turner Jr.

11-06-2023: Bore tracks continue to be installed, topsoil has been removed and covered with straw. New dewatering structure installed and boring has begun. -T. Turner Jr.

11-07-2023: Boring active, but auger head was caught on rock and maintenance needed to be called. -T. Turner Jr.

11-08-2023: Lowered pipe in for tie-in, bore machine working, partial subsidence in upland area observed on-site. Notifications made to MVP Environmental Inspector on site. Subsidence stabilized and resources were not impacted. -T. Turner Jr.

11-09-2023: Crew attempt to retrieve auger head successfully identified underground and marked by crew. -T. Turner Jr.

11-10-2023: Metal plates placed on left bank to provide stability to bank and mitigate damages to resource during auger head recovery. At 9:45am, crew marked exact location of MVP pipe and auger head underground. Retrieval of auger head required excavation of the LB on the upland side of support plates. In attempt to retrieve auger head, drill has been utilized to break down large rock where excavation on left bank had taken place at 1:15 pm. At 2pm, resource bank experienced a partial collapse. Crew took immediate action to prevent any sediment from entering resource. Dam and pump around was utilized successfully to stabilize stream and release pumped water to energy dissipator. Top 12" of stream bed and bank topsoil removed for restoration and set aside. Stream restored at 4:45pm and topsoil/substrate returned. Erosion control blankets were installed inside of stream banks and seed was applied to stream banks. Environmental Inspector Billy Bryan on site during restoration of resource -T. Turner Jr.

11-11-2023: Boring activities resumed and stream monitoring. -T. Turner Jr.

11-12-2023: Boring activities resumed and stream monitoring. -T. Turner Jr.

11-13-2023: Excavation of trench and crews installed enhancements to dewatering structures to control turbidity. -T. Turner Jr.

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Version 2.3



11-14-2023: Bore stuck 1.5 Feet below resource. Crew is active on site determining the proper steps needed to complete the bore within permit conditions. -T. Turner Jr.

11-15-2023 through 1/25/2024: Due to boring operation issues with unconsolidated material, the site has transitioned to inactive status to account for permit modification requests to agencies to change approved crossing method from bore to open cut. FERC and state agencies were consulted and permit modification was approved. Maintenance crews were on-site periodically to ensure controls were maintenance in functioning condition, and no impacts to biological conditions were observed. -T. Turner Jr.

1/26/2024: New Precon meeting conducted with new crew for open cut crossing. Environmental Inspectors are Alex Bear & Justin Wilson. Dewatering structure installed in two locations near the crossing area. Crews performed test drilling for blasting operations. -T. Turner Jr.

01/27/2024: Dewatering trenches utilizing pumps, removed trench boxes, and began preparation to enter the resource. -T. Turner Jr.

1/29/2024: Dewatering trenches utilizing trench pumps, and crews continued preparation to enter the resource. No impacts to biological conditions were observed. -T. Turner Jr.

1/30/2024: Stream crossing active, retrieval of bore head from previous crossing attempt. Stream substrate removed and separated utilizing woven geotextile fabric. Flume installed in preparation of drilling that will take place. Drill bit continues to get stuck in rock, so preparation for blasting begun. Blasting took place in preparation to lower the MVP pipe. -T. Turner Jr.

1/31/2024: Crew lowered MVP Pipe into trench. Welding completed. Silt fence and other sediment controls are being continually monitored near dewatering structure. -T. Turner Jr.

2/1/2024: Crew coating pipe and final welding completed in trench. Survey crews on site for final contouring during restoration. Seeding completed, stabilization applied, and stream restored. 50-foot buffer zone to be completed in the morning. -T. Turner Jr.

2/2/2024: Welding/Coating in upland areas. Trenchbreakers installed, completed backfill, and tie-in for pipe ends completed. Restored the topsoil to the 50-foot buffer to the stream. The environmental team installed filter socks, seed, and straw to the 50-foot buffer. No impacts to the biological conditions or unauthorized discharges were observed during the resource crossing activities. -T. Turner Jr.

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>	Terrence Turner Jr. <hr style="width: 80%; margin: 0 auto;"/> <i>Print Name</i>	 <hr style="width: 80%; margin: 0 auto;"/> <i>Signature</i>	02/02/2024 <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.

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Optional Additional Photos



Photo Description: Dewatering operation required maintenance throughout crossing due to groundwater quantity, and controls were continually replaced/enhanced as needed to control turbidity to extent practicable.



Photo Description: Stream substrate removed and stockpiled separately from sub soil.



Photo Description: Survey team on site during restoration to assist with reconfiguring stream to pre-construction contours.



Photo Description: Backfill of trench with subsoil.