

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-D4	Crossing Start Date: 10/18/2023	Crossing Completion Date: 10/21/2023
Milepost: 284.4	Pre-Con Assessment Date: 10/16/2023	Post-Con Assessment Date: 10/21/2023
Station: 15027+37	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?	Flume, 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)	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-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	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

10-16-2023 Pre-construction meeting was held, and the pre-construction assessment was completed. The MVP EI is Dave Johnston. Restoration of the stream bed may have a 3:1 slope modification due to pre-existing steep banks, and resource modification may be necessary due to the current stream erosion. The anticipated stream crossing constructions start date is 10-17-23. -G Aceves.

10-17-2023: Construction has begun, and 8-12 inches of topsoil was removed and segregated. The crew is preparing for blasting to commence tomorrow, 10-18-23. -G. Aceves

10-18-2023: Stream topsoil was removed and segregated. Soil was stored adjacent to the stream to be used later in the stream restoration. A flume was installed due to the small amount of flowing water in the stream. Dams were installed US and DS. A pump was installed in the DS dam, the water was then pumped to the dewatering structure for filtration. The US pump was placed as an auxiliary per MVP EI recommendation to contractor.

Blasting activities began. Blasting activities area complete. The blasting activities resulted in the inadvertent deposition of blasting debris approximately 10-feet outside of the upland ROW boundaries. The situation was relayed to MVP officials and the crew is waiting on guidance before removing the debris that is outside of the ROW. No material was deposited within the unpermitted resource area. Excavation of the trench began.

-G. Aceves

10-19-2023: Excavation continued. A hydraulic hammer was utilized to break rock in the trench. Per project personnel, the contractor's environmental crews are waiting for authorization before leaving the ROW to remove the blasting debris that remains outside of the ROW. -G. Aceves

10-20-2023: Lowered the tie-in pipe and removed the excess pipe length. In preparation for possible rainfall and the resulting increase to the stream flow, a flume was installed. Welded the CIS and the GAS of the pipe. QA/QCed the welds and coated the pipe. Installed the CIS trench breakers.

Item #9: The GAS trench breaker will need to be installed more than 25 feet from the top-of-bank due to safety, slope, and stability concerns.

Began to backfill the resource subsoil and padded around the GAS trench breakers. The stream restoration is anticipated to be completed tomorrow, 10-21-23. -G. Aceves

10-21-2023: Continued backfilling the resource area subsoil. Installed the GAS trench breaker. Surveyors verified that the banks were restored to the pre-construction contour. The streambank topsoil was backfilled. The area was seeded, and matting was installed along the stream bank. No modification to the slope, such as was discussed in the pre-con assessment, occurred. The post construction auditor assessment was completed. -G. Aceves

As of the completion of the resource crossing and post-construction auditor assessment, blasting material/debris outside upland ROW boundary had not been removed.

No impact to biological conditions or unauthorized discharge, were observed during the crossing activities.

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>	George Aceves <hr style="width: 80%; margin: 0 auto;"/> <i>Print Name</i>	 <hr style="width: 80%; margin: 0 auto;"/> <i>Signature</i>	10/21/2023 <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.

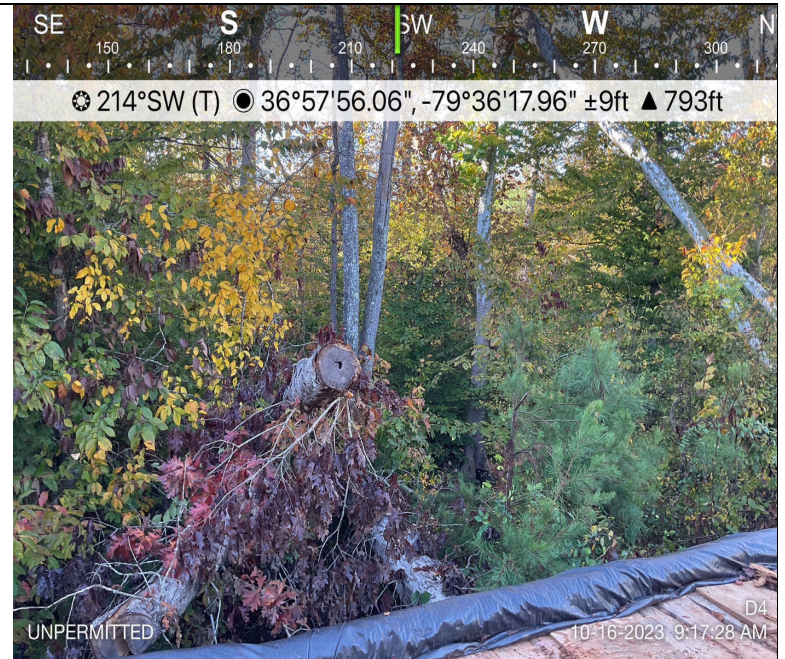


Photo Description: Conditions of the downstream area outside the ROW during pre-construction assessment.



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.

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Optional Additional Photos



Photo Description: Overview of the Dewatering structure.

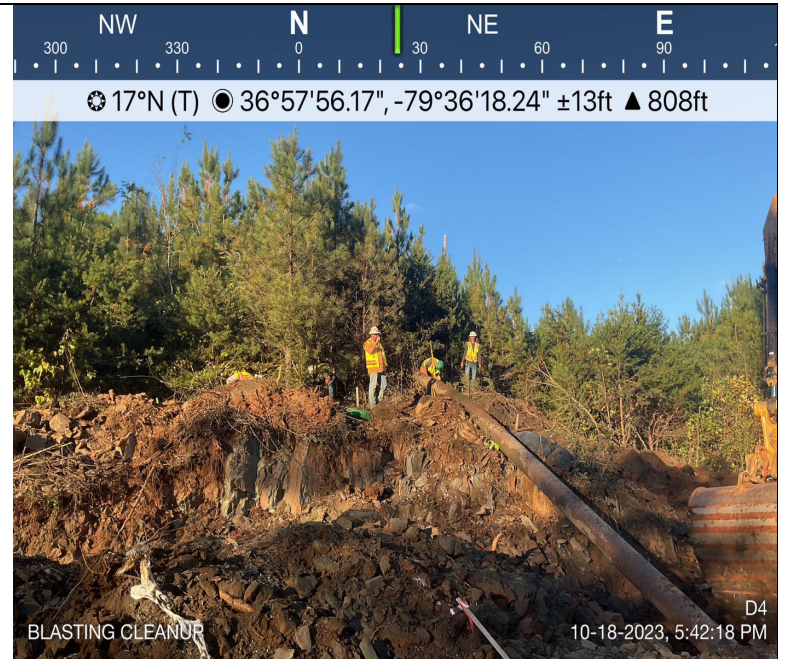


Photo Description: Assessment by contractor of the blasting debris that went off ROW in upland area. As of completion of auditor report, material had not been retrieved from off-site.



Photo Description: Excavation of the trench.



Photo Description: Restoration of the stream substrate.