

STREAM BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 2.3



Stream ID: S-PP4	Crossing Start Date: 08/02/2023	Crossing Completion Date: 08/08/2023
Milepost: 218	Pre-Con Assessment Date: 07/31/2023	Post-Con Assessment Date: 08/08/2023
Station: 11518+32	Stream Classification: Intermittent (Perennial, Intermittent, Ephemeral)	Bankfull Width (ft.): 3
County: Craig	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)	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.)	2 - Suboptimal	3 - Marginal
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)	2 - Minor	2 - Minor

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Comments/Remarks

7/31/23- Pre construction meeting held. Discussion of using flume instead of pump, no confirmation. Some substrate material may be removed by hand. Existing landowner installed flume to be removed during construction, need further discussion with landowner if it should be reinstalled. –A. Breeding

8/2/2023- Construction start. MVP EI for the crossing is Mindy Metcalf on-site, controls and dam and pump installed. No flume to be installed. Dam and pump to be maintained by staff overnight. Pipe in ground and first of three welds completed. Two pumps installed at end of day for overnight operations. –A. Breeding

8/3/2023- Rain day, no work onsite. Three pumps installed and operating onsite during day to ensure no offsite discharge. Night shift switch at 7pm. Work to resume 8/4/2023. –A. Breeding

8/4/2023- First weld complete at 10am. X-Ray and coating complete. Jeep testing begins. Second pipe section mobilized to crossing and second weld started. –A. Breeding


8/5/2023- Second weld complete. X-Ray complete. Boom alignment for final weld complete with final weld started. –A. Breeding

8/7/2023- Final weld complete. Coating and jeeping to be finished. Backfilling at bell hole closest to AR complete. 50ft buffer started padding and backfilling of subsoil on both sides of crossing. Trench breakers installed. Excess rock piles from subsoil hauled off. –A. Breeding

8/8/2023- Backfill of buffers complete. 12” of stream substrate backfilled properly. Survey team staked out data points for contouring and confirmed grade. Erosion control matting installed with seed and straw. Stream flow restored. End of crossing. No impacts to biological conditions observed during the crossing activities. –A. Breeding

Item 19: Pre-existing channel alteration observed during pre-construction assessment. Landowner-installed flume crossing present and remained installed throughout crossing activity. –A. Breeding

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.

This report was written by	Allie Breeding <i>Print Name</i>	 <i>Signature</i>	08/08/2023 <i>Date</i>
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Required Photos



Photo Description: Downstream view of permitted impact area during pre-construction assessment.

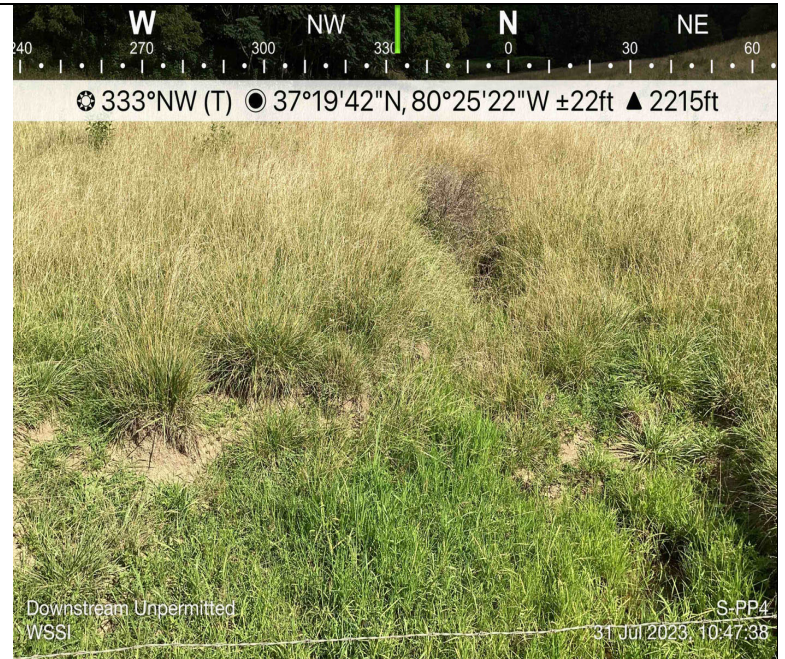


Photo Description: Downstream view of unpermitted area during pre-construction assessment.



Photo Description: Downstream view of permitted impact area during post-construction assessment.



Photo Description: Downstream view of unpermitted area during post-construction assessment.

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Optional Additional Photos



Photo Description: Existing flume in S-PP4. Not conveying water at time of photo.



Photo Description: Dam and pumps in place and functioning.



Photo Description: Existing flume and material to be used staged within buffer.



Photo Description: Trench breakers installed and backfilling underway.