

BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Version 1.1



Resource ID: S-D17

Crossing Start Date: 6/21/2021

Crossing Completion Date: 6/21/2021

Milepost: 248.83

Pre-Con Assessment Date: 6/21/2021

Post-Con Assessment Date: 6/21/2021

Station: 13138+50

Stream Classification: Intermittent
(Perennial, Intermittent, Ephemeral)

Bankfull Width (ft.): 7'

Item #	Resource Crossing Conditions	N/A	YES	NO
1.	Were all resource specific crossing conditions satisfied? (if applicable) TOYR? _____ Fish Relocation? _____ Mussel Relocation? _____	X		
2.	Is this resource a designated wild or stockable trout stream?			X
3.	Were equipment mats or other suitable methods utilized under heavy equipment to minimize soil compaction and disturbance in wetlands?		X	
4.	Was the top 1-foot of wetland soil or stream bed material segregated and stockpiled separate from trench spoils?	X		
5.	Was excavated material not needed for backfill removed and disposed of at an upland site per?	X		
6.	Was stream work conducted continuously to completion; time of disturbance minimized?		X	
7.	Was the top 1-foot of backfill in Cold Water Fisheries made with clean native stream substrate?	X		
8.	Was wetland topsoil replaced and seeded?		X	
9.	Was permanent seed applied to riparian areas and unsaturated wetlands?		X	
10.	Was pre-construction survey data utilized during restoration of stream and/or wetland areas?	X		
11.	Have surveys been scheduled to verify as-built conditions meet pre-construction conditions in accordance with federal/state permit requirements? (V: ± 0.3 ft; H: ± 1.0 ft)	X		
12.	Were disturbed areas restored to pre-construction contours?		X	
13.	Are bareroot plantings scheduled for dormant season (10/1 – 4/30)?	X		

Item #	Biologic Conditions	Pre-Con	Post-Con
14.	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
15.	Channel Conditions: <i>1-Optimal (80-100% stable banks), 2-Sub-optimal (60-80% stable banks), 3-Marginal (Erosion present in 40-60% of banks), 4-Poor (Erosion present in 60-80% of banks), 5-Severe (Erosion on 80-100% of the stream banks, highly eroded/unvegetated banks)</i>	4	3
16.	Riparian Buffers within ROW: <i>1-Optimal (60% tree canopy cover + non-maintained understory), 2-Sub-optimal (30-60% canopy cover), 3-Marginal (<30% canopy cover), 4-Poor (Mowed/maintained areas, farmland, impervious area, sparsely vegetated, etc.)</i>	4	4
17.	In-Stream Habitat: <i>Is the stream high or low gradient? (Definitions below)</i> High Gradient: <i>Defined by EPA as streams with moderate-high gradient landscapes; substrates primarily composed of coarse sediments [gravel (2mm) or larger] or frequent coarse particulate aggregations; riffle/run prevalent.</i> Low Gradient: <i>Defined by EPA as streams with low-moderate gradient landscapes; substrates of fine sediment particles or infrequent aggregations of coarse sediment particles [gravel (2mm) or larger]; glide/pool prevalent.</i>	High Gradient	
17.a.	High Gradient: <i>Varied substrate sizes, Low amount of mobile particles, Low embeddedness, Varied combination of water velocities, Presence of wood/leafy debris, Provision of shade protection.</i> Low Gradient: <i>Varied substrate sizes in pools, submerged aquatic vegetation, Presence of woody/leafy debris, Provision of shade protection.</i> Rating: <i>1-Optimal (Habitat elements present in >50% of stream), 2-Suboptimal (Habitat elements in 30-50% of stream), 3-Marginal (Habitat elements in 10-30% of stream), 4-Poor (Habitat elements lacking or <10% of stream)</i>	4	3
18.	Channel Alterations: <i>Straightened channel, Non-MVP stream crossings, Non-native riprap/rock along banks, Concrete/gabions/concrete block, Manmade embankments, Constrictions w/in channel, livestock impacts.</i> 1-Negligible (unaltered/natural stream), 2-Minor (20-40% of stream disrupted by channel alterations), 3-Moderate (40-80% of stream disrupted), 4-Poor (>80% of stream disrupted)	4	3

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Comments/Remarks

The in-stream activity re-connected MVP stream S-D17 (UNT to North Fork Blackwater River) to its historical channel, MVP stream S-D14, that was diverted by historic logging activities. This activity was permitted and approved through the Norfolk District Army Corps of Engineers (NAO-2015-00898). The stream substrate generally consisted of mud and/or silt material prior to the Wetland Habitat Log (WHL) installation, and the substrate was consistent with pre-construction conditions after the installation. Areas permitted to be temporarily impacted for this work activity were restored to pre-construction contours. The WHL was installed and secured with duck-bill anchors, and backfilled with the material excavated for the installation. The areas were seeded with the appropriate wetland seed mix, and stabilized with erosion control matting. Upon completion of the work, the stream flow was re-established to the completed work area, and verified that the stream flow was re-connected successfully. This re-connection work will reduce erosion and sedimentation by allowing the stream to follow its original stream course, instead of the historic logging road.

Pre-Construction Assessment



Overview of work area during pre-construction conditions. Wetland habitat log is to be installed across stream channel and re-connect the channel through the berm, depicted near the blue and white striped flagging. No aquatic macroinvertebrates or fish were observed in the channel prior to the work activity.

Post-Construction Assessment



Post-construction stream flow at the re-connection point of S-D17 to S-D14. The WHL was installed across the stream and the re-connection has prevented the continued erosion of the hillside. The disturbed area was seeded and stabilized with matting, and the stream flow was clear after flowing through the work area.

In accordance with the Mountain Valley Pipeline Consent Decree, dated 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	Stephen Fisher Print Name	Stephen Fisher Signature	7/5/2021 Date
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