



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread D	AFE	124300132	Spread	H-600 Pipeline Spread D
Contractor	Precision	Report #	326		
Environmental Auditor	Kyle Gillow	Date/Time	10/28/2023 2:34 PM		
Stream ID	S-N13 Braid	Crossing Start Date	10/25/2023	Crossing Completion Date	10/27/2023
Milepost	123.11	Pre-Con Assessment Date	10/24/2023	Post-Con Assessment Date	10/28/2023
Station	6500+40	Bankfull Width (ft.)	6.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Intermittent		
County	Nicholas	303(d) Impairment Listing	No		

Resource Post-Crossing Conditions

1	Were all applicable resource specific crossing conditions satisfied? Time of Year Restrictions (TOYR)? <u>Yes</u> Mussel Relocation? <u>N/A</u>	See Below
2	This question is not applicable in WV.	
3	Which crossing methods were utilized during the stream crossing? (If so select one or more) Dam & Pump <input checked="" type="checkbox"/> Flume <input checked="" type="checkbox"/> Cofferdam <input type="checkbox"/> Conventional Bore <input type="checkbox"/> Horizontal Directional Drill (HDD) Bore <input type="checkbox"/>	
4	Was the top 1-foot (12-inches) of streambed substrate segregated and stockpiled separate from trench spoils?	Yes
5	Was excess material not needed for backfill removed and disposed of in an upland area?	Yes
6	Was the top 12-inches of backfill made with clean native stream substrate?	Yes
7	Was the pre-construction survey data utilized during restoration in attempt to re-establish pre-construction contours?	Yes
8	Were any field modifications to the stream implemented by project or regulatory personnel to address potential drainage or bank restoration limitations?	No
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?	Yes
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?	Yes
11	Was the time of disturbance minimized by conducting resource work continuously to completion?	Yes
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?	Yes
13	Are bareroot saplings required and/or scheduled to be planted for the dormant season (10/1 - 4/30)?	N/A
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.	No






Biological Conditions

		Pre-Con	Post-Con
15	Predominant Substrate Type (select one): Bedrock, Boulder (>10"), Cobble (2-10"), Gravel (0.1-2"), Sand (<0.1"), Mud/Silt/Clay	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)	1	2
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.)	1	4

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Biological Conditions Continued					Pre-Con	Post-Con
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, Varied combination of water velocities, 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	4	
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	2	
Additional Notes						
<p>Stream S-N13 Braid has a time of year restriction (TOYR) prohibiting construction between Sept. 15th to March 31st. A waiver has been obtained from the appropriate agencies to allow construction within this window.</p> <p>10/25/23 - The top 12" of soil between the high water marks was placed in super sacks, and stockpiled just upstream. The flume along with the dam and pump around were setup. The feature had minimal flow passing through the flume.</p> <p>10/26/23 - Blasting crew drilled and blasted through ditch line of the features. The ditch line ran through the confluence of S-N13 and S-N13 Braid. Trenching began once blasting was completed.</p> <p>10/27/23 – Once trenching was completed through the features, the ditch was prepped with sandbags and a section of pipe crossing both S-N13 and S-N13 Braid was lowered in. Restoration of S-N13 Braid began with the padding of the pipe beyond both 10' buffer zones and installing trench breakers on the coming in and going away side of the stream. The top 12" of soil was restored and verified by survey to pre-construction specifications. The environmental crew seeded and installed curlex on the banks with silt fence at the 10' buffer zones on the coming in and going away sides. The flume and dam were removed with the feature continuing to have minimal flow.</p>						
<p>In accordance with the Mountain Valley Pipeline Comprehensive Stream and Wetland Monitoring, Restoration and Mitigation Framework, 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.</p>						
Name		Signature		Company		
Kyle Gillow				SWCA		
				Date		
				10/28/2023		

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Required Photos

			
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Downstream view of permitted impact area during pre-construction assessment.	Description	Downstream view of unimpacted area during pre-construction assessment.
			
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Downstream view of permitted impact area during post-construction assessment.	Description	Downstream view of unimpacted area during post-construction assessment.
			
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Crew removing top 12" of stream substrate.	Description	Crew segregating the stream substrate into super sacks to be stored upstream.

Optional Photos		
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GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Crew laying out ditch line for blasting crew.	Description	Crew digging ditch through feature.
			
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Crew lowering in section through feature.	Description	Crew beginning to pad and backfill through feature.
			
GPS Location	See caption in photo.	GPS Location	See caption in photo.
Description	Crew replacing the top 12" of stream substrate.	Description	Environmental crew working to put back the 10' buffer zones.