



Stream Biological Conditions EA Report

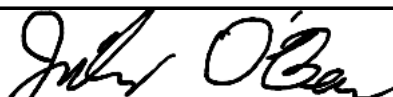
Project Name	H-600 Pipeline Spread F	AFE	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	327		
Environmental Auditor	Charles Haden	Date/Time	10/30/2023 8:28 AM		
Stream ID	S-A63	Crossing Start Date	10/30/2023	Crossing Completion Date	11/4/2023
Milepost	182.51	Pre-Con Assessment Date	10/30/2023	Post-Con Assessment Date	11/4/2023
Station	9636+50	Bankfull Width (ft.)	8.7	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Perennial		
County	Monroe	303(d) Impairment Listing	No		

Resource Post-Crossing Conditions

1	Were all applicable resource specific crossing conditions satisfied?	N/A
	Time of Year Restrictions (TOYR)? <u> N/A </u> Mussel Relocation? <u> N/A </u>	
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 Flume <input checked="" type="checkbox"/> Cofferdam Conventional Bore Horizontal Directional Drill (HDD) Bore	
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?	N/A
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	Cobble (2-10")	Cobble (2-10")
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)	2	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.)	4	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)			2	3	
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>Pre-Construction Notes</p> <p>Pre-Construction Meeting - 10/26/2023</p> <p>15. Cobble/gravel was dominant substrate noted with some fine gravel, sand and loam observed.</p> <p>16. Small amount of bank erosion observed on LDB and near timber mat bridge.</p> <p>17. Riparian buffer vegetation has been trimmed/mowed.</p> <p>18. Stream was dry during assessment.</p> <p>Travel lane not included in assessment.</p> <p>10/30/2023 - Top 12" of stream substrate removed (Photo 1), separated and stored in an adjacent upland area (Photo 2). Top 12" of riparian buffer topsoil also removed, separated and stored in adjacent upland area. US and DS dams completed. Using flume unless stream flow changes (No Flow). Excavation of trench through aquatic resource (Photo 3 and 4).</p> <p>10/31/2023 - Excavation continued on trench outside of resource area. Welding ongoing outside of trench and resource area. Trench box inserted in trench. (No Flow)</p> <p>11/1/23 - Pipe placed in trench through resource area. Welding occurred within trench but outside of resource (tie-in). (No Flow)</p> <p>11/2/23 - X-ray, sandblasting, and coating ongoing. Added pipe wrap/rock shield to pipe in trench. Started backfilling trench. (No Flow)</p> <p>11/3/23 - Backfilling of trench. Construction of trench breakers. Dams removed (dry stream). Survey onsite, staked out stream (Photo 5). Topsoil added to buffer around stream. Stream contouring based on survey data. Survey check elevation.</p> <p>11/4/23 - Final topsoil and substrate added to resource area (Photo 6). Additional contouring completed. Laborers started raking topsoil to prep for seed and curlex. Topsoil and substrate restoration complete (Photo 7). Added P1 back on outskirts of SA63 buffer. Seeded and curlex buffer around stream. Restoration complete.</p> <p>Post Construction Notes</p> <p>16., 17. Crossing and riparian areas have been recently restored. These areas will be monitored until 80% vegetative cover has been achieved and areas that do not have 80% vegetative cover within 30 days will be reseeded.</p> <p>18. Stream was dry during assessment.</p> <p>19. Does not include timber mats that remain in place for travel lane.</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		
Charles Haden				Potesta & Associates		
				Date		
				11/6/2023		

AFE	124300135	Date/Time	10/30/2023 8:28 AM	Report #	327
Required Photos					
GPS Location	See Photo	GPS Location	See 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 Photo	GPS Location	See 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 Photo	GPS Location	See Photo		
Description	Photo 1: Excavation of first top 12 inches of stream substrate.	Description	Photo 2: Stream substrate segregated and stored outside of resource.		

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Optional Photos

 <p><small>Date & Time: Mon, Oct 30, 2023 at 12:07:31 EDT Position: +037.560436° / -080.710165° (-16.0ft) Altitude: 1657ft (-40.5ft) Datum: WGS-84 Azimuth/Bearing: 275 N85W 4889mils True (-12) Elevation Angle: -18.0 Horizon Angle: +01.2 Zoom: 1.0X S463 End of day, topsoil added to banks, survey points approved MVP - S - A63</small></p>		 <p><small>Date & Time: Mon, Oct 30, 2023 at 14:05:11 EDT Position: +037.560427° / -080.70998° (-16.0ft) Altitude: 1627ft (-41.6ft) Datum: WGS-84 Azimuth/Bearing: 001 N01E 0018mils True (-12) Elevation Angle: -11.6 Horizon Angle: +00.7 Zoom: 1.0X S463 End of day, topsoil added to banks, survey points approved MVP - S - A63</small></p>	
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 3: Beginning trench excavation through resource.	Description	Photo 4: Trench through resource.
 <p><small>Date & Time: Sat, Nov 03, 2023 at 17:04:01 EDT Position: +037.560437° / -080.710267° (-16.0ft) Altitude: 1644ft (-46.6ft) Datum: WGS-84 Azimuth/Bearing: 053 N53E 0762mils True (-12) Elevation Angle: -14.9 Horizon Angle: +01.0 Zoom: 1.0X S463 End of day, topsoil added to banks, survey points approved MVP - S - A63</small></p>		 <p><small>Date & Time: Sat, Nov 03, 2023 at 09:16:03 EDT Position: +037.560437° / -080.710267° (-16.0ft) Altitude: 1622ft (-48.3ft) Datum: WGS-84 Azimuth/Bearing: 088E 088Wmils True (-12) Elevation Angle: -30.8 Horizon Angle: +01.5 Zoom: 1.0X S463 Additional topsoil MVP - S - A63</small></p>	
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 5: Survey staked resource. Beginning to add topsoil.	Description	Photo 6: Additional topsoil added to banks. Contouring.
 <p><small>Date & Time: Sat, Nov 03, 2023 at 16:27:07 EDT Position: +037.560437° / -080.710267° (-16.0ft) Altitude: 1633ft (-45.1ft) Datum: WGS-84 Azimuth/Bearing: 053 N53E 0762mils True (-12) Elevation Angle: -14.9 Horizon Angle: +00.6 Zoom: 1.0X S463 finished adding topsoil MVP - S - A63</small></p>		<p>Insert image here</p>	
GPS Location	See Photo	GPS Location	
Description	Photo 7: Topsoil and substrate restored.	Description	