



Stream Biological Conditions EA Report

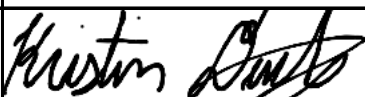
Project Name	H-600 Pipeline Spread F	AFE	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	302		
Environmental Auditor	Kristin Duty	Date/Time	10/22/2023 9:18 PM		
Stream ID	S-J13(2)	Crossing Start Date	11/9/2023	Crossing Completion Date	11/15/2023
Milepost	160.40	Pre-Con Assessment Date	10/23/2023	Post-Con Assessment Date	11/15/2023
Station	8469+12	Bankfull Width (ft.)	3.8	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Ephemeral		
County	Summers	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 <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?	See Below
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)	5	5
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

AFE	124300135	Date/Time	10/22/2023 9:18 PM	Report #	302	
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)			4	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	4	
Additional Notes						
<p>Pre-Construction Notes</p> <p>Pre-Construction Meeting - 10/21/23 and 11/2/2023</p> <p>16., 17., and 18. Banks at 1:1 present throughout resource. Channel not well defined.</p> <p>11/9/23 - Crew measured and marked aquatic resource for center line and pipe. Constructed US and DS dams in aquatic resource. Installed pump-around system. Excavated first 12" of stream substrate (Photo 1), segregated, and stored in work area (Photo 2). Began excavating through aquatic resource area (Photo 3). Welding and other activities on-going outside of aquatic resource. Flume put in place to accommodate potential stream flow.</p> <p>11/10/23 - Heavy rainfall throughout the day. No direct work done within the 10ft buffer or below OHWM. Excavating trench and dirt handling done within riparian buffer. Welding and other activities on-going outside of aquatic resource.</p> <p>11/11/23 - Sandbag bedding placed within aquatic resource area. Flume removed. Section of pipe placed in the trench through aquatic resource area (Photo 4). Welding on-going. Flume reinstalled.</p> <p>11/13/23 - Flume pipe functioning properly. Welding and other activities on-going outside of aquatic resource.</p> <p>11/14/23 - Flume pipe functioning properly. Backfilling and construction of trench breakers on boundary of aquatic resource area (Photo 5). Welding and other activities on-going outside of aquatic resource.</p> <p>11/15/23 - Completed backfilling of resource. Removed flume pipe. Survey onsite shooting pre-restoration subsoil levels. Subsoils restored 10ft buffer and OHWM (Photo 6). Stream substrate removed from containment and restored (Photo 7). Banks were sloped back to reduce erosion. Survey approved final restoration elevations. Jute added within OHWM and seed was spread in riparian zones (Photo 8). Curlex added as stabilization measure. P1 added. Removed dams and restored flow to resource.</p> <p>Post Construction Notes</p> <p>8. Pre-construction banks had severe bank angles. Restored banks have a reduced slopes to promote bank stability.</p> <p>16., 17. Crossing and riparian areas have been recently restored. These areas will be monitored until 80% vegetative coverage has been achieved and areas that do not have 80% vegetative cover within 30 days will be reseeded.</p> <p>18. Low score partially due to lack of flow as well as lack of instream substrate and associated physical habitat.</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		
Kristin Duty				Potesta		
				Date		
				11/21/2023		

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 top 12 inches of stream substrate.	Description Photo 2: Segregated stream substrate stored in work area.

AFE 124300135	Date/Time 10/22/2023 9:18 PM	Report # 302
----------------------	-------------------------------------	---------------------

Optional Photos

 <p><small>Date & Time: Sat, Nov 11, 2023 at 10:45:58 EST Position: +037.796178 / -080.732151 (+15.5ft) Altitude: 3116ft (+11.1ft) Datum: WGS-84 Azimuth/Bearing: 139° N22W 6009mils True (+13.1) Elevation Angle: -03.1° Horizon Angle: -03.1° Zoom: 1.0X S-J13 2 excavating trench through aquatic resource area. Mountain Valley</small></p>	 <p><small>Date & Time: Sat, Nov 11, 2023 at 11:31:58 EST Position: +037.796178 / -080.732151 (+15.5ft) Altitude: 3116ft (+11.1ft) Datum: WGS-84 Azimuth/Bearing: 139° N22W 6009mils True (+13.1) Elevation Angle: -03.1° Horizon Angle: -03.1° Zoom: 1.0X S-J13 2 lowering pipe into resource area. Mountain Valley</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 3: Excavating trench through aquatic resource area.	Description Photo 4: Lowering pipe into trench in aquatic resource area.
 <p><small>Date & Time: Sat, Nov 11, 2023 at 10:47:34 EST Position: +037.796178 / -080.732151 (+15.5ft) Altitude: 3116ft (+11.1ft) Datum: WGS-84 Azimuth/Bearing: 139° N22W 6009mils True (+13.1) Elevation Angle: -03.2° Horizon Angle: -03.2° Zoom: 1.0X S-J13 2 backfilling trench breakers construction. Mountain Valley</small></p>	 <p><small>Date & Time: Sat, Nov 11, 2023 at 10:47:34 EST Position: +037.796178 / -080.732151 (+15.5ft) Altitude: 3116ft (+11.1ft) Datum: WGS-84 Azimuth/Bearing: 139° N22W 6009mils True (+13.1) Elevation Angle: -03.2° Horizon Angle: -03.2° Zoom: 1.0X S-J13 2 restoring resource subsoil levels. Mountain Valley</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 5: Completed trench breakers adjacent to aquatic resource and backfilling.	Description Photo 6: Restoring subsoils.
 <p><small>Date & Time: Sat, Nov 11, 2023 at 10:48:45 EST Position: +037.796178 / -080.732151 (+15.5ft) Altitude: 3116ft (+11.1ft) Datum: WGS-84 Azimuth/Bearing: 139° N22W 6009mils True (+13.1) Elevation Angle: -03.5° Horizon Angle: -03.5° Zoom: 1.0X S-J13 2 restoring topsoil in resource area. Mountain Valley</small></p>	 <p><small>Date & Time: Sat, Nov 11, 2023 at 10:55:58 EST Position: +037.796178 / -080.732151 (+15.5ft) Altitude: 3116ft (+11.1ft) Datum: WGS-84 Azimuth/Bearing: 264° S89W 6009mils True (+13.1) Elevation Angle: -09.2° Horizon Angle: -03.2° Zoom: 1.0X S-J13 2 seeding. Mountain Valley</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 7: Restoring stream substrate.	Description Photo 8: Seeding outside of OHWM.