



Stream Biological Conditions EA Report

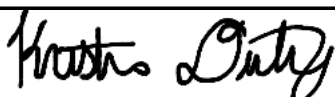
Project Name	H-600 Pipeline Spread F	AFE	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	301		
Environmental Auditor	Kristin Duty	Date/Time	10/22/2023 8:59 PM		
Stream ID	S-J13(1)	Crossing Start Date	10/24/2023	Crossing Completion Date	11/4/2023
Milepost	160.63	Pre-Con Assessment Date	10/23/2023	Post-Con Assessment Date	11/4/2023
Station	8481+26	Bankfull Width (ft.)	5.3	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Ephemeral		
County	Summers	303(d) Impairment Listing	None		

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?	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?	Yes
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)	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

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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)			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	1	
Additional Notes						
<p>Pre-Construction Notes Pre-Construction Meeting: 10/21/2023 *Bankfull Width measured at OHWM stakes within proposed trench area. 16. Stream entrenched.</p> <p>10/23/2023 - survey staked centerline through aquatic resource. On work in resource.</p> <p>10/24/2023 - Dam for pump-around installed. First 12 inches of stream substrate removed (Photo 1) and segregated. Excavation and hammering of trench in resource initiated (Photo 2).</p> <p>10/25/2023 - Continued hammering in resource. Staging of pipe outside of resource.</p> <p>10/26/2023 - Continued hammering in resource (Photo 3). Pumping ongoing in intervals. Site prepped for blasting. Blasting completed.</p> <p>10/27/2023 - Excavation of material from trench. Additional hammering in resource area. Padding added to trench (Photo 4). Pump in resource area replaced.</p> <p>10/28/2023 - Pumping water from trench. Placed pipe in trench (Photo 5). Began welding. X-ray completed.</p> <p>10/30/2023 - Welding completed in trench. Additional padding added to trench. Trench breakers installed in alternative approved locations.</p> <p>10/31/2023 - Welding, x-ray, sandblasting, and coating ongoing in trench outside resource area. (Rain)</p> <p>11/01/2023 - Trench breaks constructed on each side of the aquatic resource (Photo 6). Backfilling in resource. Subsoil restored. Survey onsite. Measurements must be redone. Flume placed across trench. (Snow)</p> <p>11/2/2023 - Flume removed and dam rebuilt. Survey reshot and staked resource (Photo 7). Topsoil and substrate restored in aquatic resource area (Photo 8).</p> <p>11/4/2023 - Survey reshot elevations after work being done in the 10-foot buffer and below OHWM.</p> <p>Post Construction Notes 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. 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		
				11/5/2023		

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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: Removal of first 12" of stream substrate.	Description	Photo 2: Excavating trench through resource.

Optional Photos		
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 <p><small>Date & Time: Thu, Oct 26, 2023 at 9:21:41 EDT Position: +037.797467° / -080.733622° (-15.1ft) Altitude: 3062ft (-11.7ft) Datum: WGS-84 Azimuth/Bearing: 018° N18E 2320mils True (-17) Elevation Angle: -25.7° Horizon Angle: -00.1° Zoom: 1.0X S-J13 1 pipe hammer in resource Mountain Valley</small></p>	 <p><small>Date & Time: Thu, Oct 27, 2023 at 16:12:54 EDT Position: +037.797638° / -080.733744° (-15.1ft) Altitude: 3067ft (-11.7ft) Datum: WGS-84 Azimuth/Bearing: 176° S34E 2596mils True (-13) Elevation Angle: -32.2° Horizon Angle: -00.5° Zoom: 1.0X S-J13 1 bedding in resource trench Mountain Valley</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 3: Hammering in resource.	Description Photo 4: Shifting bedding into resource area of trench.
 <p><small>Date & Time: Thu, Oct 26, 2023 at 14:00:00 EDT Position: +037.797567° / -080.733622° (-15.1ft) Altitude: 3062ft (-11.7ft) Datum: WGS-84 Azimuth/Bearing: 000° N00E 5600mils True (-14.7) Elevation Angle: -10.8° Horizon Angle: -00.4° Zoom: 1.0X S-J13 1 pipe in resource Mountain Valley</small></p>	 <p><small>Date & Time: Thu, Nov 02, 2023 at 16:58:05 EDT Position: +037.797653° / -080.733693° (-15.1ft) Altitude: 3062ft (-11.7ft) Datum: WGS-84 Azimuth/Bearing: 315° N03W 5600mils True (-14.7) Elevation Angle: -17.3° Horizon Angle: -01.7° Zoom: 1.0X S-J13 1 trench breaker coming in Mountain Valley</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 5: Pipe installed through aquatic resource.	Description Photo 6: Backfilling and constructing trench breakers.
 <p><small>Date & Time: Thu, Nov 02, 2023 at 11:16:05 EDT Position: +037.797697° / -080.733600° (-15.1ft) Altitude: 3061ft (-11.7ft) Datum: WGS-84 Azimuth/Bearing: 162° S19E 2803mils True (-16.1) Elevation Angle: -03.8° Horizon Angle: -00.8° Zoom: 1.0X S-J13 1 survey retaking resource Mountain Valley</small></p>	 <p><small>Date & Time: Thu, Nov 02, 2023 at 14:16:27 EDT Position: +037.797653° / -080.733693° (-15.1ft) Altitude: 3063ft (-11.7ft) Datum: WGS-84 Azimuth/Bearing: 153° S27E 2720mils True (-14.1) Elevation Angle: -30.0° Horizon Angle: +01.0° Zoom: 1.0X S-J13 1 restoring topsoil Mountain Valley</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 7: Survey retaking survey points.	Description Photo 8: Restoring topsoil in resource area.