



Stream Biological Conditions EA Report

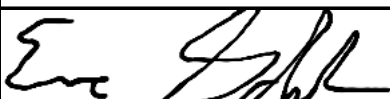
Project Name	H-600 Pipeline Spread F	AFE	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	353		
Environmental Auditor	Eric Schicker	Date/Time	11/7/2023 11:24 AM		
Stream ID	S-M6	Crossing Start Date	11/7/2023	Crossing Completion Date	11/20/2023
Milepost	159.57	Pre-Con Assessment Date	11/7/2023	Post-Con Assessment Date	11/20/2023
Station	8425+40	Bankfull Width (ft.)	4.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Intermittent		
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?	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	4
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

AFE	124300135	Date/Time	11/7/2023 11:24 AM	Report #	353	
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 - 11/06/2023 18. Low habitat score due to lack of stream flow.</p> <p>11/7/2023 - Crossing started. Wetland (W-M2) located in aquatic resource buffer. Substrate removed and Morooka used to transport to upland holding area for use in restoration. Dams built (Photo 1) and pump installed. John Henry used to drill for explosive charges to be used in breaking up bedrock. Explosive charges set and detonated. Flume pipe installed.</p> <p>11/8/2023 - Checked flume, no flow. Flume removed. Trench spill removed. Welding ongoing outside resource area. Excavated trench through aquatic resource in south to north direction (Photo 2). Flume reinstalled.</p> <p>11/9/2023 - Checked flume, no flow. Trenching continued, trench box installed, pipe set in trench, welding and X-ray outside resource area. Sandbags "pillows" added to trench. Flume reinstalled.</p> <p>11/10/2023 - Steady rain until 1445. Checked flume periodically throughout day, no flow. Work outside resource area: Pipe set in trench, welding, sandblasting and coating. Trench bedding and backfilling trench.</p> <p>11/11/2023 - Checked flume, no flow. Finishing welds from previous day, X-ray and holiday detection performed. Rock shield installed. Preparation of pad dirt (Photo 3).</p> <p>11/13/2023 - Checked flume, no flow. Work outside resource area: Pipe set in trench, welding, sandblasting and coating. Checked substrate stockpile, segregated but labeled incorrectly as S-M6 topsoil. Notified EI.</p> <p>11/14/2023 - Checked flume, no flow. More padding dirt preparation. Pipe section transported to stream crossing (Photo 4) and lowered into place. Tac welded in place to be finished the next day.</p> <p>11/15/2023-11/16/2023 - Checked flume, no flow. Previous days weld completed. X-ray, holiday detection, sandblasting and coating of weld(s). Survey team on site to shoot pipe sections/welds. Final weld started but not completed. Backfilling trench.</p> <p>11/17/2023 - Checked flume, no flow. Final weld finished and X-ray and coating completed. Northern trench breaker installed within 25 ft of aquatic resource crossing (Photo 5).</p> <p>11/18/2023 - Checked flume, no flow. Coating final weld. Contoured subsoil in preparation for stream restoration. Survey onsite to shoot and stake OHWM (Photo 6). Trench breakers completed adjacent to aquatic resource area.</p> <p>11/20/2023 - Checked flume, no flow. Flume removed. Survey onsite to shoot stream elevation and thalweg. Stream substrate restored (Photo 7) and contoured. Stream banks seeded (Photo 8) and jute installed above 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. 18. Low habitat score due to lack of stream flow. Timber mat bridge remains 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		Date
Eric Schicker				Potesta		11/20/2023

Required Photos					
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	 <p style="font-size: 8px; color: gray;">Date & Time: Tue Nov 07, 2023 8:53:01 EST Position: +037.807641 / -080.746005 / +30.21m Altitude: 3005ft (+11.2m) Datum: WGS-84 Azimuth/Bearing: 333 N27W 588mils True (+12) Elevation Angle: +20.7 Horizon Angle: -12.4 Zoom: 1.0X S-M6 D5 view of edge of EDD Mountain Valley Pipeline</p>	 <p style="font-size: 8px; color: gray;">Date & Time: Tue Nov 07, 2023 8:55:35 EST Position: +037.807641 / -080.746005 / +30.21m Altitude: 2993ft (+56.4m) Datum: WGS-84 Azimuth/Bearing: 333 N27W 592mils True (+17) Elevation Angle: +01.9 Horizon Angle: -12.4 Zoom: 1.0X S-M6 D5 view of edge of EDD Mountain Valley Pipeline</p>	
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.
	 <p style="font-size: 8px; color: gray;">Date & Time: Mon Nov 20, 2023 11:40:58 EST Position: +037.807641 / -080.745992 / +30.21m Altitude: 2993ft (+56.4m) Datum: WGS-84 Azimuth/Bearing: 333 N27W 592mils True (+17) Elevation Angle: +01.9 Horizon Angle: -12.4 Zoom: 1.0X S-M6 D5 view of edge of EDD Mountain Valley Pipeline</p>	 <p style="font-size: 8px; color: gray;">Date & Time: Mon Nov 20, 2023 11:45:51 EST Position: +037.807737 / -080.746167 / +30.11m Altitude: 2775ft (+50.2m) Datum: WGS-84 Azimuth/Bearing: 333 N27W 600mils True (+17) Elevation Angle: +01.9 Horizon Angle: -12.4 Zoom: 1.0X S-M6 D5 view of edge of EDD Mountain Valley Pipeline</p>	
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.
	 <p style="font-size: 8px; color: gray;">Date & Time: Wed Nov 08, 2023 15:54:03 EST Position: +037.807504 / -080.746221 / +30.22m Altitude: 2993ft (+56.4m) Datum: WGS-84 Azimuth/Bearing: 155 S25E 275mils True (+12) Elevation Angle: -07.9 Horizon Angle: -00.9 Zoom: 1.0X S-M6 building dams for pump around Mountain Valley Pipeline</p>	 <p style="font-size: 8px; color: gray;">Date & Time: Wed Nov 08, 2023 16:03:03 EST Position: +037.807504 / -080.746221 / +30.22m Altitude: 2993ft (+56.4m) Datum: WGS-84 Azimuth/Bearing: 227 S67W 403mils True (+12) Elevation Angle: -08.0 Horizon Angle: -00.9 Zoom: 1.0X S-M6 trench through resource Mountain Valley Pipeline</p>	
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 1: Building sandbag dams for dam & pump and flume pipe.	Description	Photo 2: Excavation of trench through aquatic resource.

Optional Photos					
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GPS Location	See Photo	GPS Location	See Photo
Description	Photo 3: Preparation of padding dirt.	Description	Photo 4: Pipe transported to trench.
			
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 5: Construction of northern trench breaker adjacent to aquatic resource area.	Description	Photo 6: Survey using pre-construction data to shoot and stake OHWM.
			
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 7: Restoration of substrate.	Description	Photo 8: Banks seeded above OHWM.