



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread E	AFE	124300134	Spread	H-600 Pipeline Spread E
Contractor	Price Gregory	Report #	243		
Environmental Auditor	Tim Ferguson	Date/Time	9/20/2023 9:17 AM		
Stream ID	S-L10	Crossing Start Date	9/20/2023	Crossing Completion Date	9/28/2023
Milepost	148.46	Pre-Con Assessment Date	9/20/2023	Post-Con Assessment Date	9/28/2023
Station	7838+73	Bankfull Width (ft.)	5.8	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Perennial		
County	Greenbrier	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>No</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 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?	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)?	No
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)	3	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.)	3	4

AFE	124300134	Date/Time	9/20/2023 9:17 AM	Report #	243	
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)			3	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)			2	4	
Additional Notes						
<p>Pre-Construction Notes</p> <p>*Bankfull width measured at OHWM stakes within proposed trench area.</p> <p>Pre-Construction Meeting - 9/18/2023 @ 1130</p> <p>Pre-Construction Assessment Completed (9/20/2023)</p> <p>Minor flow present in S-L10; travel lane was not included in assessment.</p> <p>MVP has a waiver for working in streams during the fall spawning season.</p> <p>Expanded notes for question 1: Stream S-L10 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>Day 1 (9/20/2023)</p> <p>Dam and pumps put in place. Stream substrate removed (Photo 1) and segregated in an upland area (Photo 2).</p> <p>Day 2 (9/21/2023)</p> <p>Drilling and blasting occurred in and around the aquatic resources. Blasting mats were utilized. Trench excavation (Photo 3) and dewatering occurred post blasting.</p> <p>Day 3 (9/22/2023)</p> <p>Trench work in resource and pumping from trench on-going. Pipe placed into the trench (Photo 4) and welding outside of the resource occurred.</p> <p>Day 4 (9/23/2023)</p> <p>X-ray completed on pipe. Survey work on alignment completed and adjustments made. Excavation of trench ongoing outside of resource.</p> <p>Day 5 and Day 6 (9/25/2023 and 9/25/2023))</p> <p>Trenching continued outside resource area. Other activities include pumping from the trench, coating, and welding. X-ray was completed on Day 6.</p> <p>Day 7 (9/27/2023)</p> <p>Filling of trench and installing trench breakers (Photo 5).</p> <p>Day 8 (9/28/2023)</p> <p>Trench at aquatic resources filled (Photo 6). Survey marked resource. Elevations set and substrate elevations in resource confirmed by survey. Dams removed. Banks seeded and Curlex put in place (Photo 7). Post Construction Assessment Completed.</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 no not have 80% vegetative cover within 30 days will be reseeded.</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		Date
Tim Ferguson				Potesta & Associates, Inc.		9/28/2023

AFE	124300134	Date/Time	9/20/2023 9:17 AM	Report #	243
Required Photos					
 <p><small>Date & Time: Wed, Sep 20, 2023 at 9:17:00 EDT Position: +037.938221 / -080.747029 (±137.4ft) Altitude: 310.4ft (±68.1ft) Datum: WGS84 Azimuth Bearing: 292.186W 519mils True (±12°) Pitch Angle: -18.5° Zoom: 10X S-19 Downstream view of permitted impact area during pre-construction assessment. Mountain Valley Pipeline</small></p>		 <p><small>Date & Time: Wed, Sep 20, 2023 at 9:17:00 EDT Position: +037.938221 / -080.747029 (±137.4ft) Altitude: 310.4ft (±68.1ft) Datum: WGS84 Azimuth Bearing: 001.858W 501mils True (±12°) Pitch Angle: -29.4° Zoom: 10X S-19 Downstream view of unimpacted area during pre-construction assessment. Mountain Valley Pipeline</small></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><small>Date & Time: Thu, Sep 28, 2023 at 18:14:57 EDT Position: +037.938221 / -080.747029 (±137.4ft) Altitude: 309.8ft (±67.7ft) Datum: WGS84 Azimuth Bearing: 292.186W 519mils True (±12°) Pitch Angle: -18.5° Zoom: 10X S-19 Downstream view of permitted impact area during post-construction assessment. Mountain Valley Pipeline</small></p>		 <p><small>Date & Time: Thu, Sep 28, 2023 at 18:28:49 EDT Position: +037.938221 / -080.747029 (±137.4ft) Altitude: 309.8ft (±67.7ft) Datum: WGS84 Azimuth Bearing: 292.186W 519mils True (±12°) Pitch Angle: -18.5° Zoom: 10X S-19 Downstream view of unimpacted area during post-construction assessment. Mountain Valley Pipeline</small></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><small>Date & Time: Wed, Sep 20, 2023 at 13:34:31 EDT Position: +037.938260 / -080.747029 (±137.4ft) Altitude: 310.3ft (±68.1ft) Datum: WGS84 Azimuth Bearing: 132.548E 239mils True (±12°) Pitch Angle: -15.8° Zoom: 10X S-19 Segregated stream substrate. Mountain Valley Pipeline</small></p>		 <p><small>Date & Time: Wed, Sep 20, 2023 at 14:36:09 EDT Position: +037.938160 / -080.747103 (±20.2ft) Altitude: 310.6ft (±68.0ft) Datum: WGS84 Azimuth Bearing: 289.286W 384mils True (±12°) Pitch Angle: -19.7° Zoom: 10X S-19 Stream substrate slopepile. Mountain Valley Pipeline</small></p>			
GPS Location	See Photo	GPS Location	See Photo		
Description	Photo 1: Removal of stream substrate.	Description	Photo 2: Segregated stream substrate.		

Optional Photos		
------------------------	--	--



GPS Location See Photo	GPS Location See Photo
Description Photo 3: Trenching through aquatic resources.	Description Photo 4: Pipe being placed in trench.



GPS Location See Photo	GPS Location See Photo
Description Photo 5: Filling of trench and construction of trench breakers.	Description Photo 6: Filling of trench in aquatic resource area complete.



GPS Location See Photo	GPS Location
Description Photo 7: Curlex installed on bank.	Description