



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread F	AFE	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	435		
Environmental Auditor	Eric Schicker	Date/Time	12/12/2023 7:17 AM		
Stream ID	S-MN38	Crossing Start Date	12/12/2023	Crossing Completion Date	12/21/2023
Milepost	188.96	Pre-Con Assessment Date	12/11/2023	Post-Con Assessment Date	12/21/2023
Station	9977+29	Bankfull Width (ft.)	4.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Intermittent		
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 <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	1
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	1

AFE	124300135	Date/Time	12/12/2023 7:17 AM	Report #	435	
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</p> <p>Pre-Construction Meeting - 12/11/2023</p> <p>18. Low score due to lack of flow.</p> <p>Resource bordered by wetland.</p> <p>12/12/2023 - Built upstream dam. Removed top 12 inches of substrate (Photo 1) and used Morooka to transport to separate containment area in upland work area. Built downstream dam and installed flume pipe.</p> <p>12/13/2023 - Prepped for blasting through aquatic resource area. Flume pipe removed. Started pumping water from resource area (standing water).</p> <p>12/14/2023 - Drilled for blasting (Photo 2). Mats put in place for blasting. Blasted. Mats removed. Timber mats put in place to allow for excavation. Began excavating subsoils throughout aquatic resource area.</p> <p>12/15/2023 - Excavated trench in aquatic resource (Photo 3), relayed and stockpiled. Water pumped from aquatic resource. Welded. Worked outside resource area. Replaced flume pipe.</p> <p>12/16/2023 - Pumped water from aquatic resource area. Work ongoing outside aquatic resource area. Adjusted dams. Flume pipe reset.</p> <p>12/18/2023 - Pumped water from aquatic resource areas. Sandbags added to trench for padding (Photo 4). Flume pipe removed, no upstream flow. Lowered pipe into trench. Staged pipe and began welding. Flume pipe replaced.</p> <p>12/19/2023 - Restaged pipe through aquatic resource area for welding. Welding completed. Padded and backfilled subsoil in aquatic resource area (Photo 5). X-rayed. Continued to pad and backfill.</p> <p>12/20/2023 - Backfilled subsoil in aquatic resource area. Removed flume. Dammed. No flow. Replaced topsoil in aquatic resource area (Photo 6). Channel contoured.</p> <p>12/21/2023 - Survey onsite. Survey evaluated elevations (Photo 7). Adjusted elevations. Restored substrate. Readjusted contours and subgrade (by hand) (Photo 8). Restored buffer area.</p> <p>12/29/2023 - Site revisited for minor instream adjustments.</p> <p>Post Construction Notes</p> <p>9. Trench breakers constructed outside of wetland limits</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. Low score related to lack of flow and channel diversity.</p> <p>19. Does not include timber mats that remain in place for travel lane.</p> <p>*Post construction photo replaced due to error.</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		
Eric Schicker				Potesta		
				Date		
				12/29/2023		

Required Photos	
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<p><small>Date & Time: Mon, Dec 11, 2023 12:07:07 EST Position: 037.487632 / -080.681834 / +15.4ft Altitude: 1968ft (+11.3ft) Datum: WGS-84 Azimuth Bearing: 308 N52W 507ftmits True (+13.1) Elevation Angle: -16.9 Horizon Angle: +00.4 Zoom: 1.0X S-MN38 DS view US edge of stream Mountain Valley Pipeline</small></p> 	<p><small>Date & Time: Mon, Dec 11, 2023 12:10:21 EST Position: 037.487678 / -080.681772 / +15.2ft Altitude: 1998ft (+11.3ft) Datum: WGS-84 Azimuth Bearing: 273 N68W 465ftmits True (+16.1) Elevation Angle: 27 Horizon Angle: +00.3 Zoom: 1.0X S-MN38 DS view US edge of stream from SMD 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: Fri, Dec 29, 2023 15:24:57 EST Position: 037.487630 / -080.681790 / +18.1ft Altitude: 1984ft (+45.2ft) Datum: WGS-84 Azimuth Bearing: 380 N80W 497ftmits True (+12.1) Elevation Angle: -09.6 Horizon Angle: +02.6 Zoom: 1.0X S-MN38 Downstream view of permitted impact area MVP</small></p> 	<p><small>Date & Time: Thu, Dec 21, 2023 at 14:16:35 EST Position: 037.487663 / -080.681972 / +32.9ft Altitude: 1960ft (+11.3ft) Datum: WGS-84 Azimuth Bearing: 309 N64W 506ftmits True (+12.1) Elevation Angle: -07.2 Horizon Angle: +02.6 Zoom: 0.8X S-MN38 DS Long DS unimpacted post-construction MVP</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: Tue, Dec 12, 2023 10:22:42 EST Position: 037.487616 / -080.681826 / +10.9ft Altitude: 1974ft (+11.2ft) Datum: WGS-84 Azimuth Bearing: 330 N30W 307ftmits True (+12.1) Elevation Angle: -00 Horizon Angle: +00 Zoom: 1.0X S-MN38 muck & transporting substrate Mountain Valley Pipeline</small></p> 	<p><small>Date & Time: Thu, Dec 14, 2023 at 10:51:06 EST Position: 037.487663 / -080.681639 / +28.1ft Altitude: 1974ft (+11.2ft) Datum: WGS-84 Azimuth Bearing: 202 S22W 359ftmits True (+24.1) Elevation Angle: +06.6 Horizon Angle: +00.0 Zoom: 2.0X S-MN38 S-MN38 & W-MN18-PEM Drilling for blasting MVP</small></p> 
GPS Location See Photo	GPS Location See Photo
Description Photo 1: Removal of top 12 inches of substrate.	Description Photo 2: Drilling in aquatic resource area.

Optional Photos					
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GPS Location	See Photo	GPS Location	See Photo
Description	Photo 3: Excavation of trench through aquatic resource.	Description	Photo 4: Sandbags in trench for padding.



GPS Location	See Photo	GPS Location	See Photo
Description	Photo 5: Backfilling.	Description	Photo 6: Topsoil restoration.



GPS Location	See Photo	GPS Location	See Photo
Description	Photo 7: Elevations staked by survey.	Description	Photo 8: Contouring channel by hand.