



# Stream Biological Conditions EA Report

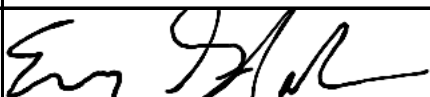
<b>Project Name</b>	H-600 Pipeline Spread F	<b>AFE</b>	124300135	<b>Spread</b>	H-600 Pipeline Spread F
<b>Contractor</b>	Price Gregory	<b>Report #</b>	441		
<b>Environmental Auditor</b>	Eric Schicker	<b>Date/Time</b>	12/14/2023 11:33 AM		
<b>Stream ID</b>	S-CV27	<b>Crossing Start Date</b>	12/14/2023	<b>Crossing Completion Date</b>	12/22/2023
<b>Milepost</b>	191.09	<b>Pre-Con Assessment Date</b>	11/30/2023	<b>Post-Con Assessment Date</b>	12/22/2023
<b>Station</b>	10089+55	<b>Bankfull Width (ft.)</b>	3.1	<b>Riffle:Pool Complexes Present?</b>	No
<b>State</b>	WV	<b>Stream Classification</b>	Intermittent		
<b>County</b>	Monroe	<b>303(d) Impairment Listing</b>	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    Flume <input checked="" type="checkbox"/> Cofferdam    Conventional Bore    Horizontal Directional Drill (HDD) Bore	
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	<b>Predominant Substrate Type (select one):</b> Bedrock, Boulder (>10"), Cobble (2-10"), Gravel (0.1-2"), Sand (<0.1"), Mud/Silt/Clay	Mud/Silt/Clay	Mud/Silt/Clay
16	<b>Channel Conditions: Rating:</b> 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	<b>Riparian Buffer Zone within ROW and ≤50 ft. from Stream Top-of-Bank: Rating:</b> 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	3

<b>AFE</b>	124300135	<b>Date/Time</b>	12/14/2023 11:33 AM	<b>Report #</b>	441	
<b>Biological Conditions Continued</b>					<b>Pre-Con</b>	<b>Post-Con</b>
18	<b>Instream Habitat Conditions:</b> 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	<b>Channel Alterations:</b> 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	3	
<b>Additional Notes</b>						
<p>Pre-Construction Notes  Pre-Construction Meeting - 11/28/2023  15. Predominate substrate noted as mud/silt/clay.  18. Low score due to lack of flow.</p> <p>12/14/2023 - Sandbag dams placed and flume installed. Timber mats put in place and substrate removed (Photo 1). Morooka used to relay substrate to containment area for segregation in upland area (Photo 2).</p> <p>12/15/2023 - Trench through resource began (Photo 3). Hammer used to breakup bedrock, spoil removed and relayed to upland area. Trench through resource completed.</p> <p>12/16/2023 - No work in resource. Flume pipe remained in place.</p> <p>12/18/2023 - Water pumped from trench. Sandbags added to trench for pipe padding (Photo 4). Flume pipe remained in place.</p> <p>12/19/2023 - Flume pipe removed. Water pumped from trench. Pipe section transported to and set in trench (Photo 5). Flume pipe replaced.</p> <p>12/20/2023 - Ongoing pipe alignment and welding. Water pumped from trench. Final pipe section transported to and set in trench. X-ray performed. Flume pipe remained in place.</p> <p>12/21/2023 - Water pumped from trench. X-ray performed. Holiday detection, sandblasting and coating of welds ongoing. One trench breaker installed (Photo 6) and some backfilling of trench.</p> <p>12/22/2023 - Completed backfilling into buffer areas (Photo 7), going away side trench breaker completed and backfilled. Survey shooting elevations. Topsoil placed, elevations checked, seeded (Photo 8), and stabilized.</p> <p>1/5/2024 - Site revisited due to inaccurate photo.</p> <p>Post Construction Notes  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.  18. Low score due to lack of flow.  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>						
<b>Name</b>		<b>Signature</b>		<b>Company</b>		
Eric Schicker				Potesta		
				<b>Date</b>		
				1/5/2024		



<b>AFE</b> 124300135	<b>Date/Time</b> 12/14/2023 11:33 AM	<b>Report #</b> 441
----------------------	--------------------------------------	---------------------

**Required Photos**

 <p><small>Date &amp; Time: Thu, Nov 30, 2023, 11:01:03 EST Position: +037.462749, -080.689609 (-14.14ft) Altitude: 2085ft (-60.2ft) Datum: WGS-84 Azimuth/Bearing: 173, S07E 3076mils True (-12°) Elevation Angle: -16.1 Horizon Angle: -00.6 Zoom: 1.0X S-CV27 DS view US edge LOD Mountain Valley Pipeline</small></p>	 <p><small>Date &amp; Time: Thu, Nov 30, 2023, 11:03:48 EST Position: +037.462748, -080.689613 (-15.4ft) Altitude: 2088ft (-11.3ft) Datum: WGS-84 Azimuth/Bearing: 225, S45W 4000mils True (-12°) Elevation Angle: -12.3 Horizon Angle: +02.0 Zoom: 1.0X S-CV27 DS view US edge LOD (from TMB) Mountain Valley Pipeline</small></p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> Downstream view of permitted impact area during pre-construction assessment.	<b>Description</b> Downstream view of unimpacted area during pre-construction assessment.
 <p><small>Date &amp; Time: Fri, Jan 05, 2024, 11:04:00 EST Position: +037.462704, N, -080.689617, W (-16.0ft) Altitude: 2082ft (-37.1ft) Datum: WGS-84 Azimuth/Bearing: 174, S06E 3993mils True (-12°) Elevation Angle: -10.6 Horizon Angle: +01.2 Zoom: 1.0X S-CV27 DS View from US Edge LOD Mountain Valley Pipeline</small></p>	 <p><small>Date &amp; Time: Fri, Dec 22, 2023, at 16:08:09 EST Position: +037.462731, N, -080.689613, W (-16.6ft) Altitude: 2080ft (-40.8ft) Datum: WGS-84 Azimuth/Bearing: 180, S0W 3926mils True (-13°) Elevation Angle: -13.1 Horizon Angle: +02.4 Zoom: 1.0X S-CV27 DS view from US Edge LOD Mountain Valley Pipeline</small></p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> Downstream view of permitted impact area during post-construction assessment.	<b>Description</b> Downstream view of unimpacted area during post-construction assessment.
 <p><small>Date &amp; Time: Thu, Dec 14, 2023, 11:59:34 EST Position: +037.462777, -080.689573 (-26.0ft) Altitude: 2081ft (-43.7ft) Datum: WGS-84 Azimuth/Bearing: 028, N28E 0458mils True (-12°) Elevation Angle: -07.3 Horizon Angle: -03.2 Zoom: 1.0X S-CV27 Removing topsoil Mountain Valley Pipeline</small></p>	 <p><small>Date &amp; Time: Thu, Dec 14, 2023, 12:00:20 EST Position: +037.462733, -080.689489 (-15.4ft) Altitude: 2072ft (-11.2ft) Datum: WGS-84 Azimuth/Bearing: 043, N43E 0764mils True (-11°) Elevation Angle: +07.6 Horizon Angle: -00.8 Zoom: 1.0X S-CV27 Morooka material segregation Mountain Valley Pipeline</small></p>
<b>GPS Location</b> See Photo	<b>GPS Location</b> See Photo
<b>Description</b> Photo 1: Excavating top 12 inches of topsoil.	<b>Description</b> Photo 2: Soil relayed into Morooka to be segregated in upland area.



<b>Optional Photos</b>					
------------------------	--	--	--	--	--

 <p><small>Date &amp; Time: Mon, Dec 18, 2023, 12:56:10 EST Position: +037.466886° N, -080.470781° W (+37.467° N, -80.471° W) Altitude: 2087ft (+635m) Datum: WGS 84 Azimuth/Bearing: 091° N32E 0.56mils True (+13°) Elevation Angle: +09.2° Horizon Angle: -02.5° Zoom: 1.0X S-CV27 digging trench Mountain Valley Pipeline</small></p>	 <p><small>Date &amp; Time: Mon, Dec 18, 2023, 12:56:10 EST Position: +037.466886° N, -080.470781° W (+37.467° N, -80.471° W) Altitude: 2087ft (+635m) Datum: WGS 84 Azimuth/Bearing: 091° N32E 0.56mils True (+13°) Elevation Angle: +11.53° Horizon Angle: -02.0° Zoom: 1.0X S-CV27 adding sandbag pilrows Mountain Valley Pipeline</small></p>		
<b>GPS Location</b>	See Photo	<b>GPS Location</b>	See Photo
<b>Description</b>	Photo 3: Excavating through trench.	<b>Description</b>	Photo 4: Adding sandbags to trench for support.
 <p><small>Date &amp; Time: Tue, Dec 19, 2023, 14:58:50 EST Position: +037.466886° N, -080.470781° W (+37.467° N, -80.471° W) Altitude: 2114ft (+644m) Datum: WGS 84 Azimuth/Bearing: 141° N58E 1.77mils True (+14°) Elevation Angle: +00.5° Horizon Angle: -01.4° Zoom: 4.0X S-CV27 transporting pipe Mountain Valley Pipeline</small></p>	 <p><small>Date &amp; Time: Tue, Dec 19, 2023, 14:58:50 EST Position: +037.466886° N, -080.470781° W (+37.467° N, -80.471° W) Altitude: 2114ft (+644m) Datum: WGS 84 Azimuth/Bearing: 292° N68W 5.191mils True (+14°) Elevation Angle: +05.5° Horizon Angle: +00.7° Zoom: 1.0X S-CV27 trench breakers Mountain Valley Pipeline</small></p>		
<b>GPS Location</b>	See Photo	<b>GPS Location</b>	See Photo
<b>Description</b>	Photo 5: Pipe lowered into trench.	<b>Description</b>	Photo 6: Trench breakers being constructed and backfilling ongoing.
 <p><small>Date &amp; Time: Fri, Dec 22, 2023, 09:27:44 EST Position: +037.466886° N, -080.470781° W (+37.467° N, -80.471° W) Altitude: 2079ft (+633m) Datum: WGS 84 Azimuth/Bearing: 078° N78E 0.69mils True (+13°) Elevation Angle: +10.4° Horizon Angle: -00.2° Zoom: 1.0X S-CV27 backfilled Mountain Valley Pipeline</small></p>	 <p><small>Date &amp; Time: Fri, Dec 22, 2023, 09:27:44 EST Position: +037.466886° N, -080.470781° W (+37.467° N, -80.471° W) Altitude: 2079ft (+633m) Datum: WGS 84 Azimuth/Bearing: 032° N32E 0.56mils True (+13°) Elevation Angle: +18.3° Horizon Angle: -00.2° Zoom: 1.0X S-CV27 seeding resource area Mountain Valley Pipeline</small></p>		
<b>GPS Location</b>	See Photo	<b>GPS Location</b>	See Photo
<b>Description</b>	Photo 7: Aquatic resource area filled.	<b>Description</b>	Photo 8: Seeding in aquatic resource area.