



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread F	AFE	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	419		
Environmental Auditor	Mathew Huber	Date/Time	12/3/2023 8:29 PM		
Stream ID	S-C39	Crossing Start Date	12/12/2023	Crossing Completion Date	12/21/2023
Milepost	194.73	Pre-Con Assessment Date	12/4/2023	Post-Con Assessment Date	12/22/2023
Station	10281+97	Bankfull Width (ft.)	5.0	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Perennial		
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	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)	3	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	12/3/2023 8:29 PM	Report #	419	
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)			1	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 - 11/29/2023 16. Stream banks are highly vegetated, but they are also steep and contain undercutting in some areas. Buffer is within wetland (W-C13)</p> <p>12/12/2023 - Dams constructed US and DS in each braid for pump-around system. Flow present in resource. Excavated top 12 inches of substrate (Photo 1). Channel braided and substrate from mainstem segregated separately from braid. Topsoil excavated from adjacent resources. Drilled for blasting. Placed rubber mats for blasting. Blasted.</p> <p>12/13/2023 - Flow present (continued pump-around). Drilled for blasting in adjacent aquatic resource. Blasted. Excavated in adjacent aquatic resource. Welding ongoing.</p> <p>12/14/2023 - Flow present (continued pump-around). X-rayed. Excavated through aquatic resource (Photo 2). Excavation completed.</p> <p>12/15/2023 - Flow present (continued pump-around). Pumped water from trench. Pipe placed in trench north of aquatic resource. Welding ongoing. Bedding/padding (dirt) added to trench.</p> <p>12/16/2023 - Flow present (continued pump-around). Pumped water from trench. Bedding/padding (dirt) added to trench. Pipe placed in trench through aquatic resource area (Photo 3). Welding, x-rayed, cutting, jeeeping outside of aquatic resource.</p> <p>12/18/2023 - Flow present (continued pump-around). Pumped water from trench. Welding and cutting of pipe ongoing.</p> <p>12/19/2023 - Flow present (continued pump-around). Pumped water from trench. Welding and X-ray ongoing. Bedding and sandbags (as bedding) added to trench. Began constructing trench breakers on the southern end of resource area (Photo 4) (also northern trench break for S-C41). Trench backfilled. River weights added.</p> <p>12/20/2023 - Temporary flume pipe installed in mainstem. Continued to backfill (Photo 5). Trench breaker completed. Flume pipe removed and continued to backfill.</p> <p>12/21/2023 - Flow present (continued pump-around). Completed backfilling. Contoured/graded a restored mainstem channel (Photo 6) and braid in subsoil. Added substrate (Photo 7). Removed the dam and pump from mainstem and braid. Flow restored. Jute added to banks.</p> <p>12/22/2023 - Seeded. Post-construction assessment completed.</p> <p>Post Construction Notes 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. 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
Mathew Huber				ERM		12/22/2023

Required Photos					
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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: Excavating of first 12 inches of substrate.	Description	Photo 2: Excavated through aquatic resource.

Optional Photos					
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 <p><small>Date & Time: Tue, Dec 19, 2023 10:58:57 EST Position: +037 426993 / -080 694231 (+70 0ft) Altitude: 1925ft (+641ft) Datum: WGS-84 Azimuth Bearing: 196.516W 3684mils True (+33) Elevation Angle: -06.3 Horizon Angle: -00.1 Zoom: 1.0X S-C39 moved hose support Mountain Valley</small></p>	 <p><small>Date & Time: Tue, Dec 19, 2023 10:58:57 EST Position: +037 426993 / -080 694231 (+70 0ft) Altitude: 1919ft (+564ft) Datum: WGS-84 Azimuth Bearing: 196.516W 3680mils True (+33) Elevation Angle: -06.3 Horizon Angle: -00.2 Zoom: 2.0X S-C39 Trench Breaker at Mountain Valley Pipeline</small></p>		
GPS Location	See photo	GPS Location	See photo
Description	Photo 3: Pipe placed in trench in aquatic resource area.	Description	Photo 4: Trench breaker.
 <p><small>Date & Time: Wed, Dec 20, 2023 11:59:59 EST Position: +037 426566 / -080 694231 (+68 6ft) Altitude: 1916ft (+549ft) Datum: WGS-84 Azimuth Bearing: 199.566W 3627mils True (+32) Elevation Angle: -04.8 Horizon Angle: -01.4 Zoom: 1.0X S-C39 trench fill Mountain Valley Pipeline</small></p>	 <p><small>Date & Time: Wed, Dec 20, 2023 12:52:31 EST Position: +037 426559 / -080 694231 (+67 7ft) Altitude: 1914ft (+547ft) Datum: WGS-84 Azimuth Bearing: 199.570W 3613mils True (+32) Elevation Angle: -12.6 Horizon Angle: -00.2 Zoom: 1.0X S-C39 Contouring Mountain Valley Pipeline</small></p>		
GPS Location	See photo	GPS Location	See photo
Description	Photo 5: Continuing to backfill.	Description	Photo 6: Contouring subsoil.
 <p><small>Date & Time: Thu, Dec 21, 2023 11:50:59 EST Position: +037 426726 / -080 694231 (+18 1ft) Altitude: 1911ft (+541ft) Datum: WGS-84 Azimuth Bearing: 211.531W 3657mils True (+35) Elevation Angle: -02.9 Horizon Angle: -00.1 Zoom: 1.0X S-C39 seeding Mountain Valley Pipeline</small></p>	 <p><small>Date & Time: Fri, Dec 22, 2023 09:18:43 EST Position: +037 426793 / -080 694259 (+70 9ft) Altitude: 1920ft (+549ft) Datum: WGS-84 Azimuth Bearing: 157.523E 2791mils True (+33) Elevation Angle: -14.6 Horizon Angle: -01.4 Zoom: 1.0X S-C39 seeding Mountain Valley Pipeline</small></p>		
GPS Location	See photo	GPS Location	See photo
Description	Photo 7: Contouring restored substrate in mainstem.	Description	Photo 8: Seeding braid of S-C39.