



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread E	AFE	124300134	Spread	H-600 Pipeline Spread E
Contractor	Price Gregory	Report #	207		
Environmental Auditor	Dan Miller	Date/Time	8/24/2023 10:22 AM		
Stream ID	S-H64	Crossing Start Date	8/26/2023	Crossing Completion Date	9/9/2023
Milepost	132.28	Pre-Con Assessment Date	8/24/2023	Post-Con Assessment Date	9/9/2023
Station	6984+45	Bankfull Width (ft.)	4.7	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Intermittent		
County	Nicholas	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)	2	3
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

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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 1000 (8/24/2023) Pre-Construction Assessment Completed (8/24/2023); EI for crossing is Justin Vanhorn *Bankfull width measured at OHWM stakes within proposed trench area upstream of timber mats. 18. Habitat score influenced by poor habitat and no stream flow.</p> <p>Day 1 (8/26/2023) (Rain over past 24hr ~1.1 inches) Work included stream substrate excavation (Photo 1), placing in upland area (Photo 2), hammering and digging of trench (Photo 3).</p> <p>Day 2 (8/27/2023) Hammering and trench development continued. Bedding placed in trench (Photo 4). Section of pipe placed in trench.</p> <p>Day 3 and Day 4 (8/28/2023 and 8/29/2023) (Precipitation total for both days ~ 1.95 inches.) Welding on-going throughout both days. Stop work occurred on Day 4 due to safety concerns associated with the trench.</p> <p>Day 5 (8/31/2023) Work consisted of a combination of the following activities: welding; maintaining trench integrity; pumping; pipe rock guards, sand blasts, and coating. A trench guard was also put in place.</p> <p>Day 6 (9/1/2023) A misalignment was identified, pipe removed and associated adjustments to trench were ongoing.</p> <p>Day 7 (9/2/2023) Trench surveyed; pipe returned to trench and welding proceeded.</p> <p>Day 8 (9/5/2023) and Day 9 (9/6/2023) Welding and x-ray of the pipe in the trench was ongoing. Backfilling of the trench outside of the resource area began.</p> <p>Day 10 (9/7/2023) Installed cathodic protection. Construction of three trench breaks adjacent to resource (Photo 5). Filling of trench on-going.</p> <p>Day 11 (9/8/2023) Final trench break completed. Trench filling in the resource area was completed. Survey completed for final contouring of the resource. Stream substrate and bank material was returned was returned to resource location (Photos 6 and 7).</p> <p>Day 12 (9/8/2023) Flume removed and seed and Curlex were placed within 10-foot buffer. 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 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. 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
Dan Miller				Potesta & Associates		9/9/2023

AFE 124300134		Date/Time 8/24/2023 10:22 AM		Report # 207			
Required Photos							
 <p>Date & Time: Fri, Aug 25, 2023 at 10:25:07 EDT Position: +038.116271° N / -080.735377° W (-23.3in) Altitude: 2627ft (+38.5ft) Datum: WGS 84 Azimuth/Bearing: 006° N46E 0818mils True (+12) Elevation Angle: +31.0° Horizon Angle: -00.3° Zoom: 1.0X Topsoil separation and identification. MVP S-H64/W-H31</p>		 <p>Date & Time: Fri, Aug 25, 2023 at 10:25:07 EDT Position: +038.116271° N / -080.735377° W (-23.3in) Altitude: 2639ft (+38.5ft) Datum: WGS 84 Azimuth/Bearing: 081° N81E 1224mils True (+13) Elevation Angle: +31.0° Horizon Angle: -00.3° Zoom: 1.0X Edge of ROW being downstepped back from timber bridge pre-construction MVP S-H64/W-H31</p>		GPS Location		GPS Location	
Description		Description		Description		Description	
Downstream view of permitted impact area during pre-construction assessment.		Downstream view of unimpacted area during pre-construction assessment.		Downstream view of permitted impact area during post-construction assessment.		Downstream view of unimpacted area during post-construction assessment.	
 <p>Date & Time: Sat, Sep 09, 2023 at 10:22:07 EDT Position: +038.116316° N / -080.735209° W (-23.3in) Altitude: 2625ft (+38.5ft) Datum: WGS 84 Azimuth/Bearing: 007° N07E 0126mils True (+8) Elevation Angle: -25.1° Horizon Angle: -00.2° Zoom: 1.0X DS view of resource area, post construction assessment MVP S-H64/W-H31</p>		 <p>Date & Time: Sat, Sep 09, 2023 at 10:22:07 EDT Position: +038.116316° N / -080.735209° W (-23.3in) Altitude: 2625ft (+38.5ft) Datum: WGS 84 Azimuth/Bearing: 093° S97E 1653mils True (+12) Elevation Angle: -21.2° Horizon Angle: -00.4° Zoom: 1.0X DS view of unimpacted area, edge of ROW post construction assessment MVP S-H64/W-H31</p>		GPS Location		GPS Location	
Description		Description		Description		Description	
Downstream view of permitted impact area during post-construction assessment.		Downstream view of unimpacted area during post-construction assessment.		Downstream view of permitted impact area during post-construction assessment.		Downstream view of unimpacted area during post-construction assessment.	
 <p>Date & Time: Sat, Aug 26, 2023 at 14:21:07 EDT Position: +038.117071° N / -080.735116° W (-20.4in) Altitude: 2628ft (+67.2ft) Datum: WGS 84 Azimuth/Bearing: 163° S17E 2364mils True (+12) Elevation Angle: +16.8° Horizon Angle: -04.2° Zoom: 1.0X S-H64 TOPSOIL SEGREGATION Mountain Valley</p>		 <p>Date & Time: Mon, Aug 28, 2023 at 14:29:07 EDT Position: +038.117108° N / -080.735116° W (-20.4in) Altitude: 2628ft (+67.2ft) Datum: WGS 84 Azimuth/Bearing: 163° S17E 2898mils True (+19) Elevation Angle: -16.8° Horizon Angle: +02.1° Zoom: 1.0X Topsoil separation and identification. MVP S-H64/W-H31</p>		GPS Location		GPS Location	
Description		Description		Description		Description	
Photo 1: Removal of stream substrate in S-H64.		Photo 2: Stream Substrate segregated.		See Photo		See Photo	

Optional Photos		
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GPS Location See Photo	GPS Location See Photo
Description Photo 3: Trenching through wetland and stream.	Description Photo 4: Lowering bedding into trench to prepare for pipe.



GPS Location See Photo	GPS Location See Photo
Description Photo 5: Trench breaks in place around resource (in background).	Description Photo 6: Remove segregated material.



GPS Location See Photo	GPS Location
Description Photo 7: Stream staked by Survey Crew.	Description