



Stream Biological Conditions EA Report


Project Name	H-600 Pipeline Spread E	AFE	124300134	Spread	H-600 Pipeline Spread E
Contractor	Price Gregory	Report #	275		
Environmental Auditor	Allyson Kincaid	Date/Time	10/2/2023 10:27 AM		
Stream ID	S-H71	Crossing Start Date	10/2/2023	Crossing Completion Date	10/19/2023
Milepost	131.49	Pre-Con Assessment Date	10/2/2023	Post-Con Assessment Date	10/19/2023
Station	6942+67	Bankfull Width (ft.)	9.3	Riffle:Pool Complexes Present?	No
State	WV	Stream Classification	Perennial		
County	Nicholas	303(d) Impairment Listing	No		

Resource Post-Crossing Conditions




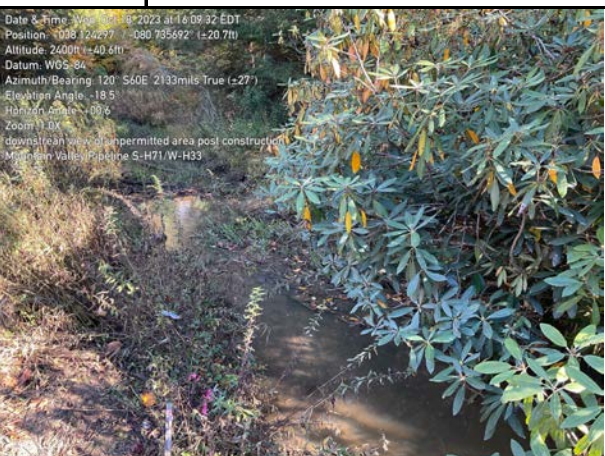


1	Were all applicable resource specific crossing conditions satisfied? Time of Year Restrictions (TOYR)? <u>Yes</u> Mussel Relocation? <u>N/A</u>	See Below
2	This question is not applicable in WV.	
3	Which crossing methods were utilized during the stream crossing? (If so select one or more) Dam & Pump <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?	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	Sand (<0.1")	Sand (<0.1")
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	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	3

AFE	124300134	Date/Time	10/2/2023 10:27 AM	Report #	275	
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	3	
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	3	
Additional Notes						
<p>Pre-Construction Notes Pre-Construction Meeting S-H71 substrate consists of sand and silt with some large pieces of cobble. Silt sand dominant. Bankfull width obtained in the field. Beaver dam located in LOD.</p> <p>10/2/2023 - Dams put in place in S-H71 for pumping around system to maintain flow in the stream outside LOD to prevent damage to existing beaver dam. Water running clear in this system once stabilized. Substrate removed (Photo 1) and segregated in an upland area (Photo 2).</p> <p>10/3/2023-10/4/2023 - Drilling occurring in and around resource in preparation for blasting for the next two days. Geo-tarp was placed on upstream edge of timber mat bridge to prevent any blowback from enter downstream area of stream. Dynamite was placed into holes and first series of blasted occurred (10/4/2023).</p> <p>10/5/2023 - Placing dynamite on slope outside of resource area. Blasting occurred. Preparation for trenching the following day. Done drilling. Mats placed prior to blasting. Pump around system for S-H71 replaced.</p> <p>10/6/2023-10/7/2023 - Excavation of trench and hammering in trench in and outside resource area (Photos 3 and 4). Mats utilized to prevent compaction. Pumping of S-H71 ongoing. Pumping of trench into dewatering structure.</p> <p>10/9/2023 - Welding outside of resource area on-going. Padding placed in trench (Photo 5). Pipe lowered into trench in resource area (Photo 6). Pumping of S-H71 ongoing. Pumping of trench into dewatering structure.</p> <p>10/10/2023-10/16/2023 - Work on-going outside of the resource area including blasting, excavating in the trench, welding, x-ray, and sandblasting. Building of trench breaker directly outside of resource area (10/10/2023 and 10/14/2023). Padding dirt added to the trench. River weights placed in resource area (Photo 7) (10/14/2023). Backfilling of resource area (10/16/2023). Pumping of S-H71 ongoing. Pumping of trench into dewatering structure. Heavy rain occurred on 10/14/2023.</p> <p>10/17/2023 - Light rain. Continued to fill trench. Survey onsite, begin to contour stream. Pumping of S-H71 ongoing.</p> <p>10/18/2023-10/19/2023 - Stream contouring and stream substrate replaced (Photo 8). Dams and pump removed. Stream flowing. Seeding completed. Topsoil placed along right and left descending banks. Curlex and jute matting put along slopes. Beaver dam remained intact.</p> <p>Post Construction Notes 1. S-H71 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. 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. 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		
Allyson Kincaid				POTESTA		
				Date		
				10/19/2023		

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: Removal of stream substrate	Description Photo 2: Stream substrate and topsoil isolated outside of resource area.

Optional Photos		
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GPS Location See Photo	GPS Location See Photo
Description Photo 3: Begin trenching in resource area.	Description Photo 4: Trench through resource area.



GPS Location See Photo	GPS Location See Photo
Description Photo 5: Padding placed in trench.	Description Photo 6: Placing pipe in resource area.



GPS Location See Photo	GPS Location See Photo
Description Photo 7: Placement of river weights in resource area.	Description Photo 8: Restoring stream substrate.