



# Stream Biological Conditions EA Report


<b>Project Name</b>	H-600 Pipeline Spread A	<b>AFE</b>	124300129	<b>Spread</b>	H-600 Pipeline Spread A
<b>Contractor</b>	Precision	<b>Report #</b>	238		
<b>Environmental Auditor</b>	Devin Jen	<b>Date/Time</b>	9/18/2023 11:31 AM		
<b>Stream ID</b>	S-K74	<b>Crossing Start Date</b>	9/21/2023	<b>Crossing Completion Date</b>	10/26/2023
<b>Milepost</b>	31.42	<b>Pre-Con Assessment Date</b>	9/18/2023	<b>Post-Con Assessment Date</b>	10/26/2023
<b>Station</b>	1658+77	<b>Bankfull Width (ft.)</b>	2.5	<b>Riffle:Pool Complexes Present?</b>	No
<b>State</b>	WV	<b>Stream Classification</b>	Ephemeral		
<b>County</b>	Harrison	<b>303(d) Impairment Listing</b>	No/A		

### Resource Post-Crossing Conditions

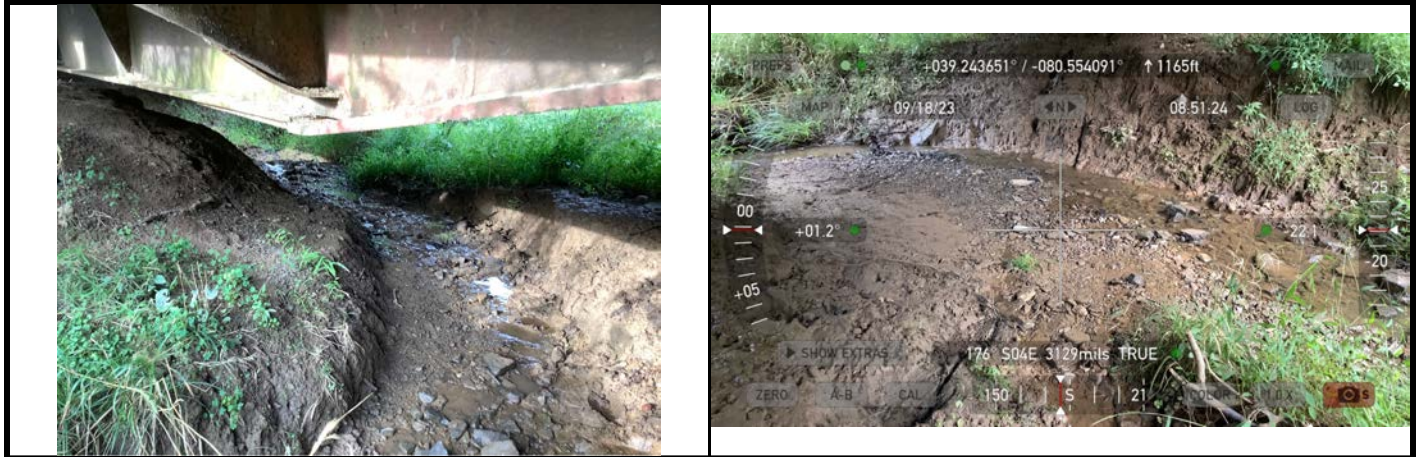
1	Were all applicable resource specific crossing conditions satisfied?	Yes
	Time of Year Restrictions (TOYR)? <u>Yes</u> Mussel Relocation? <u>N/A</u>	
2	This question is not applicable in WV.	
3	Which crossing methods were utilized during the stream crossing? (If so select one or more) Dam & Pump <input checked="" type="checkbox"/> Flume <input 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?	N/A
5	Was excess material not needed for backfill removed and disposed of in an upland area?	N/A
6	Was the top 12-inches of backfill made with clean native stream substrate?	N/A
7	Was the pre-construction survey data utilized during restoration in attempt to re-establish pre-construction contours?	N/A
8	Were any field modifications to the stream implemented by project or regulatory personnel to address potential drainage or bank restoration limitations?	N/A
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?	N/A
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?	N/A
11	Was the time of disturbance minimized by conducting resource work continuously to completion?	N/A
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?	N/A
13	Are bareroot saplings required and/or scheduled to be planted for the dormant season (10/1 - 4/30)?	No
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)	4	4
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.)	4	4

<b>AFE</b>	124300129	<b>Date/Time</b>	9/18/2023 11:31 AM	<b>Report #</b>	238	
<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)			3	3	
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	1	
<b>Additional Notes</b>						
<p>9/16/2023 The pre-construction meeting was held and pre-construction assessment took place. The stream has time of year restrictions from April 1 to June 30. -D. Jen</p> <p>9/20/2023 Though no impacts to the stream were planned, the ephemeral stream S-K74 was upstream of the open cut of S-K73, so the contractor installed a dam in the stream upstream as a contingency to prevent any flow from entering into stream S-K73 during the installation of the crossing.</p> <p>9/21/2023 The contractor began work on the nearby crossings by removing the topsoil in the stream/wetland complex and began work on sheetpiling installation. -A. Dunn</p> <p>9/22/2023-10/5/2023 The contractor continued work on installation of the sheet piling and dewatering of groundwater as necessary. -A. Dunn, M. Kastan</p> <p>10/6/2023-10/9/2023 The contractor worked on excavating the trench through the stream/wetland complex. -M. Kastan</p> <p>10/10/2023-10/17/2023 The contractor worked on installing the pipe through the stream/wetland complex crossing, including welding, x-ray, and coating. -M. Kastan</p> <p>10/18/2023-10/25/2023 The contractor worked on backfilling the trench and removing sheetpiling. -M. Kastan</p> <p>10/26/2023 The contractor finished replacing the original 12" of segregated streambed substrate to stream S-K73 and removed the dam from S-K74 following completion of stabilization measures. No construction impacts to stream S-K74 were observed. -M. Kastan</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>		
Devin Jen				ERM		
				<b>Date</b>		
				10/26/2023		

**Required Photos**



<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.



<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.



<b>GPS Location</b>	See photo	<b>GPS Location</b>	See photo
<b>Description</b>	This photo shows topsoil removed from the adjacent stream crossing	<b>Description</b>	This photo shows the sheetpiling installed in the stream/wetland complex

**Optional Photos**

	
<b>GPS Location</b> See photo	<b>GPS Location</b> See photo
<b>Description</b> This photo shows the sheetpiling installed in the stream/wetland complex	<b>Description</b> This photo shows the trench excavated in the stream/wetland complex
	
<b>GPS Location</b> See photo	<b>GPS Location</b> See photo
<b>Description</b> This photo shows the pipe installed in the stream/wetland complex	<b>Description</b> This photo shows the partially backfilled trench in the stream/wetland complex
	
<b>GPS Location</b> See photo	<b>GPS Location</b> See photo
<b>Description</b> This photo shows the contractor working on removing sheetpiling	<b>Description</b> This photo shows adjacent stream S-K73 following installation of stabilization measures