



# Stream Biological Conditions EA Report

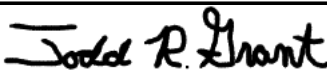
<b>Project Name</b>	H-600 Pipeline Spread D	<b>AFE</b>	124300132	<b>Spread</b>	H-600 Pipeline Spread D
<b>Contractor</b>	Precision	<b>Report #</b>	316		
<b>Environmental Auditor</b>	Todd Grant	<b>Date/Time</b>	10/26/2023 8:50 AM		
<b>Stream ID</b>	S-I41	<b>Crossing Start Date</b>	10/24/2023	<b>Crossing Completion Date</b>	11/19/2023
<b>Milepost</b>	127.01	<b>Pre-Con Assessment Date</b>	10/24/2023	<b>Post-Con Assessment Date</b>	11/20/2023
<b>Station</b>	6706+09	<b>Bankfull Width (ft.)</b>	8.0	<b>Riffle:Pool Complexes Present?</b>	No
<b>State</b>	WV	<b>Stream Classification</b>	Intermittent		
<b>County</b>	Nicholas	<b>303(d) Impairment Listing</b>	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 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	<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	4

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<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)			1	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	1	
<b>Additional Notes</b>						
<p>Expanded notes for question 1: Stream S-I41 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.</p> <p>10/24/2023 The top 12" of soil was placed in super sacks and stockpiled in an upland area on the going away side (GAS) of the stream. The subsoil was relayed down the right of way (ROW) and stockpiled separately in an upland area. The contractor worked on welding pipe on top of the hill along the access road throughout the day.</p> <p>10/25/2025 Ditching activities continued on the coming in side (CIS) of the stream crossing through the adjacent wetland W-I11a. A large pile of boulders were hammered and relocated up the ROW to make space for spoil piles. The bottom of the trench was padded with sandbags through stream S-I41 and adjacent wetland W-I11a. Welding activities continued on top of the hill during the morning, along with x-ray, coating, and rock shield being applied to the pipe. The contractor lowered in the pipe, which extending through wetland W-I11a and stream S-I41. Padding and trench breaker construction activities were started.</p> <p>10/26/2023 The contractor completed padding and backfilling the area between the trench breakers at Sta. #6705+68 to Sta. #6706+32. Survey confirmed that the streams substrate was replaced to preconstruction elevations and contours between the high water marks. The wetland topsoil was replaced in wetland W-I11a, which is adjacent on both sides of the stream. The 10' buffer on the GAS of S-I41 could not be restored at this time due to the lack of space between the two streams (S-I41 and S-I36). The buffer will be restored when the tie-in section between the two streams is completed, following the S-I36 crossing. Seed was applied to the wetland and a super silt fence was installed at the wetland boundary to stabilize the soils of the wetland and stream S-I41 while stream S-I36 was under construction.</p> <p>10/27/2023-11/12/2023 No activities were performed to stream S-I41 while the nearby stream (S-I36) was being crossed.</p> <p>11/13/2023 After the completion of S-I36, the ditch line between the GAS of S-I41 and the CIS of S-I36 was excavated and trench boxes were installed. Dewatering activities were carried out on an as needed basis throughout the tie-in process. The first section of pipe was lowered in at the GAS buffer of stream S-I41 and welding operations began.</p> <p>11/14/2023-11/17/23 Throughout the next couple of days the remaining sections of pipe were lowered in and welded. On the 16th and 17th the final x-ray, sandblasting, and coating activities were performed on all welds between streams S-I41 and S-I36.</p> <p>11/18/2023 Padding of the pipe was started and the trench box at the stream buffer was removed.</p> <p>11/19/2023 Padding of the pipe and backfilling the stream buffer was completed. Biological conditions numbers 17 and 18 were rated 4-poor due to the lack of vegetation in the permitted disturbed area following construction activities. The intermittent stream was never observed to have flow, but the wetland through which it runs was observed to have standing water following a recent rain event. The contractor's environmental crew re-established the super silt fence at the edge of wetland W-I11a, which is part of the 10-foot buffer on the GAS of stream S-I41. The stream buffer outside of the wetland boundary was seeded and stabilized in accordance with Appendix B: Restoration work plan of the Mountain Valley Pipeline Comprehensive Stream and Wetland Monitoring, Restoration, and Mitigation Framework.</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>		
Todd Grant				SWCA		
				<b>Date</b>		
				11/20/2023		



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**Required Photos**

			
<b>GPS Location</b>	See photo above	<b>GPS Location</b>	See photo above
<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 above	<b>GPS Location</b>	See photo above
<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 above	<b>GPS Location</b>	See photo above
<b>Description</b>	View of ditch through stream S-I41 from upstream edge of ROW.	<b>Description</b>	View of the stream substrate being separated in super sacks.

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**Optional Photos**

			
<b>GPS Location</b>	See photo above	<b>GPS Location</b>	See photo above
<b>Description</b>	View of trenching activities in S-I41.	<b>Description</b>	View of stream S-I41 segregated substrate.
			
<b>GPS Location</b>	See photo above	<b>GPS Location</b>	See photo above
<b>Description</b>	View of the pipe lowered in through stream S-I41 and adjacent wetland.	<b>Description</b>	View of padding activities at stream S-I41.
			
<b>GPS Location</b>	See photo above	<b>GPS Location</b>	See photo above
<b>Description</b>	View of stream S-I41 substrate being replaced.	<b>Description</b>	View of stream S-I41 substrate replaced prior to wetland topsoil replacement on both sides of the stream.