



Wetland Biological Conditions EA Report

Project Name	H-600 Pipeline Spread F	A/E	124300135	Spread	H-600 Pipeline Spread F
Contractor	Price Gregory	Report #	25		
Environmental Auditor	Beth Burdette			Date/Time	8/21/2023 5:49 PM
Wetland ID	W-K2-PEM	Crossing Start Date	8/29/2023	Crossing Completion Date	9/6/2023
Milepost	172.73	Pre-Con Assessment Date	8/22/2023	Post-Con Assessment Date	9/6/2023
Station	9120+14	Cowardin Classification	PEM	Wetland Impact Area(acs)	0.0104
State	WV				
County	Summers				

Resource Post-Crossing Conditions

1	Were equipment mats or other suitable methods utilized under heavy equipment to minimize soil compaction and disturbance in wetlands?	Yes
2	Was the existing vegetation removed prior to initiating land disturbance within the resource?	N/A
3	Was the top 1-foot (12-inches) of wetland soil segregated and stockpiled separate from trench spoils?	Yes
4	Was excess material not needed for backfill removed and disposed of in an upland area?	Yes
5	Was the top 12-inches of backfill made with clean native wetland topsoil?	Yes
6	Were standard decompaction practices (disking, plowing, cultivating, tilling, or incorporation of organic matter into the topsoil horizon) implemented prior to applying seed?	Yes
7	Was wetland topsoil replaced and temporarily seeded?	Yes
8	Was permanent seed applied to unsaturated wetlands?	Yes
9	Was equipment/timber matting removed from the wetland area properly by vertically lifting, and not pulling through the impact area?	N/A
10	Were impervious trench breakers/plugs properly installed within 25-feet of the resource to prevent subsurface erosion to or from the resource area?	Yes
11	Was the pre-construction survey data utilized during restoration in attempt to maintain the original surface hydrology, and were contours re-established to pre-construction conditions to maintain overland flow patterns?	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	Was the time of disturbance minimized by conducting resource work continuously to completion?	Yes
14	Does the post-construction square footage of wetland area appear to be restored to meet or exceed the pre-construction area square footage?	Yes
15	Are bareroot saplings required and/or scheduled to be planted for the dormant season (10/1 – 4/30) in PFO classified wetlands?	N/A
16	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
17	Wetland Saturation: Are surface waters, the water table, and/or overall soil saturation present? (Select Yes or No)	Yes	No
18	Resource Alterations: Are the wetland soil conditions visibly disturbed? Examples: Livestock presence, haul roads, farm traffic, drain tiles, recent mowing/clear cutting, recent excavating/disking of soils, etc. Rating: 1-Negligible (undisturbed/natural resource), 2-Minor (20-40% of resource disturbed by alterations), 3-Moderate (40-80% of resource disturbed), 4-Poor (>80% of resource disturbed)	1	3
19	Is vegetation present within the permitted impact area prior to disturbance? (Pre-Con)Are areas properly seeded and stabilized after restoration? (Post-Con) Rating: 1-Optimal (60-100% heavy vegetative cover), 2-Sub-optimal (30-60% mixed vegetative coverage), 3-Marginal (<30% vegetative coverage), 4-Poor (Mowed/maintained area or farmland, impervious area, sparsely vegetative coverage, etc.)	1	1

AFE 124300135	Date/Time 8/21/2023 5:49 PM	Report # 25
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Additional Notes

Pre-Construction Notes
 17. Surface water, saturation. Other wetland indicators present.
 Pre-Construction Meeting at 1100 (8/22/2023)
 Pre-Construction Assessment Completed (8/22/2023)
 EI for Crossing is Mark Howard

Day 1 (8/29/2023)
 Rain yesterday/overnight. Vegetation trimmed and wetland topsoil removed (Photo1). Wetland topsoil was then segregated and stored in upland area (Photo 2).

Day 2 (8/30/2023)
 Rain overnight. Small amount of pumping and trenching began in resource location. Blasting also occurred in resource (Photo 3).

Day 3 (8/31/2023)
 Trenching completed on LDB. Additional trenching with pipe placed in trench on RDB and welding completed on this section.

Day 4 (9/1/2023)
 Pipe placed in trench on LDB (Photo 4); welding and ditch padding (in trench) ongoing.

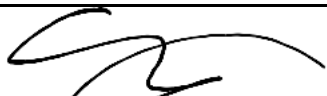
Day 5 (9/2/2023)
 Additional section of pipe placed in trench. Welding completed and trench breakers installed. Trench breakers installed on both sides of resource (Photo 5). Backfilling of trench in the resource area completed. Wetland topsoil restored (Photo 6).

Day 7 (9/5/2023)
 Survey completed for final contouring of resource (Photo 7). Hand shoveling and raking to contour wetland. Additional backfilling of trench outside of resource area (in the riparian buffer). Hand tools used to minimize compaction of wetland soils. Post Construction Assessment began.

Day 8 (9/6/2023)
 Wetland seeded (Photo 8). Post Construction Assessment completed.







Post Construction
 17. Water was not noted in resource post construction. Soils were not saturated.
 18. 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.
 Timber mat remains in place for travel lane.

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.


Name	Signature	Company	Date
Beth Burdette		Potesta & Associates, Inc.	9/6/2023

AFE	124300135	Date/Time	8/21/2023 5:49 PM	Report #	25
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Required Photos

 <p>Date & Time: Tue, Aug 22, 2023 at 12:12:44 EDT Position: 037.668187 N / 080.723416 W (+103.9ft) Altitude: 1055ft (+67.0ft) Datum: WGS-84 Azimuth/Bearing: 222° S42W 3947mils True (+26°) Elevation Angle: -9.6° Horizon Angle: -01.8° Zoom: 1.0X W-K2-PEM PROPOSED IMPACT AREA Mountain Valley</p>		 <p>Date & Time: Tue, Aug 22, 2023 at 12:19:16 EDT Position: 037.668188 N / 080.723465 W (+23.3ft) Altitude: 1057ft (+67.0ft) Datum: WGS-84 Azimuth/Bearing: 090° N06E 0711mils True (+01°) Elevation Angle: -08.8° Horizon Angle: -00.4° Zoom: 1.0X W-K2-PEM UPSLOPE OF IMPACT AREA Mountain Valley</p>	
GPS Location	See Photo	GPS Location	See Photo
Description	View of permitted resource impact area during pre-construction assessment. Overview of W-K2-PEM proposed trench location facing downslope.	Description	At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment. Overview of W-K2-PEM upslope of proposed trench location (No Impact).
 <p>Date & Time: Tue, Sep 05, 2023 at 13:19:30 EDT Position: 037.668114 N / 080.723467 W (+267.7ft) Altitude: 1058ft (+67.0ft) Datum: WGS-84 Azimuth/Bearing: 220° S40W 3911mils True (+12°) Elevation Angle: -18.2° Horizon Angle: -03.0° Zoom: 1.0X W-K2-PEM IMPACT OVERVIEW Mountain Valley</p>		 <p>Date & Time: Tue, Sep 05, 2023 at 13:20:09 EDT Position: 037.668189 N / 080.723461 W (+23.3ft) Altitude: 1057ft (+67.0ft) Datum: WGS-84 Azimuth/Bearing: 187° S11W 3802mils True (+12°) Elevation Angle: -07.2° Horizon Angle: -01.0° Zoom: 1.0X W-K2-PEM UNIMPACTED AREA OVERVIEW FROM US EDGE ROW Mountain Valley</p>	
GPS Location	See Photo	GPS Location	See Photo
Description	View of permitted resource impact area during post-construction assessment. Overview of W-K2-PEM restored trench location facing downslope.	Description	At edge of LOD, view of unimpacted resource area conditions during post-construction assessment. Overview of unimpacted resource from US edge of ROW facing downslope.
 <p>Date & Time: Tue, Aug 29, 2023 at 15:43:48 EDT Position: 037.668302 N / 080.723392 W (+280.9ft) Altitude: 1039ft (+67.0ft) Datum: WGS-84 Azimuth/Bearing: 45° S8W 3800mils True (+12°) Elevation Angle: -12° Horizon Angle: -08.8° Zoom: 1.0X Segregated topsoil from W-K2-PEM MVP - S-L1-W-K2-PEM</p>		 <p>Date & Time: Tue, Aug 29, 2023 at 17:03:09 EDT Position: 037.668564 N / 080.724432 W (+76.9ft) Altitude: 1163ft (+67.0ft) Datum: WGS-84 Azimuth/Bearing: 051° N01E 3807mils True (+23°) Elevation Angle: -01.1° Horizon Angle: -00.6° Zoom: 1.0X W-K2-PEM - topsoil storage S-L1-W-K2-PEM</p>	
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 1. Wetland 12" topsoil excavation and segregation onto sled.	Description	Photo 2. Wetland 12" topsoil stock pile.

Optional Photos					
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 <p style="font-size: small; margin-top: 5px;">Date & Time: Wed, Aug 30, 2023 at 14:42:56 EDT Position: +037.668120° N / -080.723795° W (+11.2 9ft) Altitude: 1568ft (+55.3ft) Datum: WGS-84 Azimuth/Bearing: 278° N82W 492mils True (+12°) Elevation Angle: -13.2° Horizon Angle: -00.4° Zoom: 1.0X Resource crossing after blasting mats were removed. MVP - S-11/W-K2-PEM</p>	 <p style="font-size: small; margin-top: 5px;">Date & Time: Fri, Sep 01, 2023 at 11:37:52 EDT Position: +037.668271° N / -080.723795° W (+11.2 9ft) Altitude: 1580ft (+50.7ft) Datum: WGS-84 Azimuth/Bearing: 140° S40E 348mils True (+12°) Elevation Angle: -24.7° Horizon Angle: -02.2° Zoom: 1.0X Lowering pipe in trench. MVP - S-11/W-K2-PEM</p>		
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 3. Resource crossing after blasting.	Description	Photo 4. Pipe lowered into trench.
 <p style="font-size: small; margin-top: 5px;">Date & Time: Sat, Sep 02, 2023 at 08:09:45 EDT Position: +037.668185° N / -080.723670° W (+11.2 9ft) Altitude: 1547ft (+47.8ft) Datum: WGS-84 Azimuth/Bearing: 265° N75W 586mils True (+12°) Elevation Angle: -2.0° Horizon Angle: -00.7° Zoom: 1.0X Installing trench breaker in contour trench. MVP - S-11/W-K2-PEM</p>	 <p style="font-size: small; margin-top: 5px;">Date & Time: Sat, Sep 02, 2023 at 13:58:58 EDT Position: +037.668150° N / -080.723396° W (+11.2 9ft) Altitude: 1570ft (+51.3ft) Datum: WGS-84 Azimuth/Bearing: 278° S46W 4018mils True (+12°) Elevation Angle: -00.0° Horizon Angle: -00.0° Zoom: 1.0X Top 12" of wetland topsoil MVP - S-11/W-K2-PEM</p>		
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 5. Installation of trench breaker.	Description	Photo 6. Restoration of wetland 12" topsoil to resource.
 <p style="font-size: small; margin-top: 5px;">Date & Time: Tue, Sep 05, 2023 at 13:22:36 EDT Position: +037.668190° N / -080.723461° W (+11.2 9ft) Altitude: 1557ft (+48.4ft) Datum: WGS-84 Azimuth/Bearing: 210° S30W 3733mils True (+12°) Elevation Angle: -10.0° Horizon Angle: +02.4° Zoom: 1.0X W-K2-PEM PREP FOR SEEDING Mountain Valley</p>	 <p style="font-size: small; margin-top: 5px;">Date & Time: Wed, Sep 06, 2023 at 10:44:58 EDT Position: +037.668159° N / -080.723774° W (+11.2 9ft) Altitude: 1568ft (+42.0ft) Datum: WGS-84 Azimuth/Bearing: 220° S36W 4177mils True (+12°) Elevation Angle: -18.6° Horizon Angle: -02.7° Zoom: 1.0X W-K2-PEM SEEDING Mountain Valley</p>		
GPS Location	See Photo	GPS Location	See Photo
Description	Photo 7. Final contouring of wetland soil and prep for seeding.	Description	Photo 8. Seeded wetland.