



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 #	147		
Environmental Auditor	Aaron Crank			Date/Time	12/4/2023 9:23 AM
Wetland ID	W-MN14	Crossing Start Date	12/4/2023	Crossing Completion Date	12/23/2023
Milepost	185.87	Pre-Con Assessment Date	12/4/2023	Post-Con Assessment Date	12/23/2023
Station	9813+69	Cowardin Classification	PEM	Wetland Impact Area(acs)	0.0390
State	WV				
County	Monroe				

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?	Yes
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?	Yes
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)	No		Yes
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)	2		4
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.)	2		1

AFE 124300135	Date/Time 12/4/2023 9:23 AM	Report # 147
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Additional Notes

Pre-Construction Notes
 Pre-Construction Meeting - 11/29/2023
 15. No water or soil saturation observed in test pit dug in center of resource area.
 18., 19. Resource positioned within area that was formerly cattle pasture. Minimal disturbance observed, vegetation present throughout resource, though no wetland species were observed.






12/04/2023 - Excavated top 12 inches of topsoil (Photo 1). Prepped for blasting (Photo 2). Holes drilled into resource with John Henry, explosives placed for blasting (Photo 3). Blasted. Trenching and welding occurred outside resource area on coming-in side throughout the day.
 12/05/2023 - Excavators removed soil displaced by blasting in aquatic resource. No additional work occurred within aquatic resource. Trenching, hammering and welding occurred outside aquatic resource area throughout the day.
 12/06/2023 - Environmental crew installed silt sock along edge of non-impacted aquatic resource area. No additional work occurred within aquatic resource. Trenching, hammering and welding occurred outside aquatic resource throughout the day.
 12/07/2023 - No work occurred in resource area. Trenching, hammering and welding occurred outside resource throughout the day.
 12/08/2023 - Section of pipe placed on skids over aquatic resource (Photo 4). No additional work occurred within aquatic resource. Welding and coating occurred outside of aquatic resource throughout the day.
 12/09/2023 - No work occurred in aquatic resource area. Welding and backfilling occurred outside aquatic resource area throughout the day.
 12/11/2023 - Rain from previous day resulted in standing water throughout aquatic resource. No work occurred in aquatic resource area. Welding occurred outside aquatic resource area in buffer zone throughout the day.
 12/12/2023-12/13/2023 - No work occurred in aquatic resource area. Welding, sandblasting and coating occurred outside aquatic resource area in buffer zone throughout the day.
 12/14/2023 - Crew marked route of pipe centerline through aquatic resource. Trenching began in resource area (Photo 5). Water pumping intermittently from excavated trench throughout the day and continued overnight. No additional work occurred in resource.
 12/15/2023 - No flow in stream. Excavated trench. No pumping. Hammering in trench completed. Lowered pipe into trench. Began Welding.
 12/16/2023 - Trenching through aquatic resource continued. Crew tried to place the pipe but due to wrong size had to begin the recutting and rewelding process.
 12/18/2023 - Water pumped from trench in aquatic resource and continued overnight. Sandblasting and coating occurred outside aquatic resource area.
 12/19/2023 - Water pumped from trench in aquatic resource. Trench box installed (Photo 6). Welding, coating and X-ray inspection occurred outside resource area.
 12/20/2023 - Water pumped from trench in aquatic resource. Pipe lowered into trench. Welding occurred outside aquatic resource area.
 12/21/2023 - Backfilling, sandblasting and coating occurred outside aquatic resource area. No work occurred in aquatic resource.
 12/22/2023 - Water pumped from trench in aquatic resource. Trench breaker installed (Photo 7). River weights placed over pipe. Backfilling ongoing (Photo 8). Second trench breaker installed. Topsoil restored. Environmental crew installed P1 silt saver fence along boundary. Environmental crew installed jute. Backfilling and coating occurred outside resource throughout the day.
 12/23/2023 - Environmental crew applied seed. No additional work
 01/02/2024 - Post-construction assessment revisited. Resource has been permanently seeded and proper ECDs installed.







Post Construction Notes
 17. Test pit did not recharge, soils were not saturated.
 19. Crossing has recently been restored. These areas will be monitored until 80% vegetative cover is achieved. Areas that do not have 80% vegetative cover within 30 days will be reseeded.
 Timber mat bridge 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
Aaron Crank		Potesta	1/2/2024

Required Photos		
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 <p><small>Date & Time: Sun, Dec 04, 2023 at 10:55:42 EST Position: +037.520134 / -080.707416 (±50.3ft) Altitude: 1772ft (±11.7ft) Datum: WGS-84 Azimuth/Bearing: 352° N08W 6258mils True (±33°) Elevation Angle: -12.4° Horizon Angle: -00.5° Zoom: 1.0X W-MN16 topsoil removal MVP-WMN16, WMN15, SMN2 Tickmark's every 5'</small></p>	 <p><small>Date & Time: Sun, Dec 04, 2023 at 10:55:42 EST Position: +037.520134 / -080.707416 (±50.3ft) Altitude: 1772ft (±11.7ft) Datum: WGS-84 Azimuth/Bearing: 060° N60E 1087mils True (±16°) Elevation Angle: -04.5° Horizon Angle: -01.2° Zoom: 1.0X W-MN16 unimpacted resource area viewed E of proposed pipe route MVP-WMN16 Tickmark's every 5'</small></p>
GPS Location See Photo	GPS Location See Photo
Description View of permitted resource impact area during pre-construction assessment.	Description At edge of LOD, view of unimpacted resource area conditions during pre-construction assessment.
 <p><small>Date & Time: Tue, Jan 02, 2024 at 15:28:16 EST Position: +037.520027 / -080.708305 (±50.1ft) Altitude: 1765ft (±13.3ft) Datum: WGS-84 Azimuth/Bearing: 005° N45E 0800mils True (±12°) Elevation Angle: -02.3° Horizon Angle: -00.8° Zoom: 1.0X View of unimpacted resource area during post-construction assessment MVP-W-MN16</small></p>	 <p><small>Date & Time: Tue, Jan 02, 2024 at 15:30:01 EST Position: +037.520077 / -080.707814 (±48.4ft) Altitude: 1766ft (±13.3ft) Datum: WGS-84 Azimuth/Bearing: 005° N45E 0800mils True (±12°) Elevation Angle: -02.3° Horizon Angle: -02.3° Zoom: 1.0X View of unimpacted resource area during post-construction assessment MVP-W-MN16</small></p>
GPS Location See Photo	GPS Location See Photo
Description View of permitted resource impact area during post-construction assessment.	Description At edge of LOD, view of unimpacted resource area conditions during post-construction assessment.
 <p><small>Date & Time: Mon, Dec 04, 2023 at 10:55:42 EST Position: +037.520134 / -080.707416 (±50.3ft) Altitude: 1772ft (±11.7ft) Datum: WGS-84 Azimuth/Bearing: 221° S41W 3929mils True (±38°) Elevation Angle: -21.6° Horizon Angle: -00.5° Zoom: 1.0X W-MN16 topsoil removal MVP-WMN16, WMN15, SMN2 Tickmark's every 5'</small></p>	 <p><small>Date & Time: Mon, Dec 04, 2023 at 11:21:09 EST Position: +037.520193 / -080.707537 (±15.5ft) Altitude: 1774ft (±11.7ft) Datum: WGS-84 Azimuth/Bearing: 208° S25W 3844mils True (±22°) Elevation Angle: -11.6° Horizon Angle: -00.8° Zoom: 1.0X Blasting crew marked locations for drilling in W-MN16 and S-MN2 MVP-WMN16, WMN15, SMN2 Tickmark's every 5'</small></p>
GPS Location See Photo	GPS Location See Photo
Description Photo 1: Excavated top 12 inches of topsoil.	Description Photo 2: Blasting crew marking aquatic resource for drilling.

AFE	124300135	Date/Time	12/4/2023 9:23 AM	Report #	147
Optional Photos					
 <p>Date & Time: Mon, Dec 04, 2023 at 12:44:01 EST Position: +037 519279 / -080 707536 (-19.21m) Altitude: 1771ft (-540ft) Datum: WGS-84 Azimuth/Bearing: 10c, S76E, 1849mils True (-38) Elevation Angle: -09.8 Horizon Angle: -03.3 Zoom: 1.0X Trench breaker installed on side of W-MN14 and other resources MVP: WMN14, WMN15, SMN2 Tick marks every 5'</p>	See Photo	 <p>Date & Time: Fri, Dec 08, 2023 at 12:40:07 EST Position: +037 520199 / -080 707536 (-19.21m) Altitude: 1784ft (-19.7ft) Datum: WGS-84 Azimuth/Bearing: 181 S01W, 3218mils True (-32) Elevation Angle: -08.7 Horizon Angle: -00.3 Zoom: 1.0X Pipe brought downhill, being placed on skids, positioned within W-MN14 and S-MN2 MVP: WMN14, WMN15, SMN2 Tick marks every 5'</p>	See Photo		
GPS Location Description	See Photo Photo 3: Drilling for blasting in aquatic resource.	GPS Location Description	See Photo Photo 4: Pipe placed on skids in aquatic resource area.		
 <p>Date & Time: Thu, Dec 07, 2023 at 14:31:11 EST Position: +037 520054 / -080 707469 (-15.61m) Altitude: 1904ft (-17.1ft) Datum: WGS-84 Azimuth/Bearing: 919 N41W, 5671mils True (-2) Elevation Angle: -24.3 Horizon Angle: -01.3 Zoom: 1.0X Trenching in W-MN14 MVP: WMN14, WMN15, SMN2 Tick marks every 5'</p>	See Photo	 <p>Date & Time: Tue, Dec 19, 2023 at 15:09:44 EST Position: +037 520034 / -080 707616 (-24.9ft) Altitude: 1784ft (-19.7ft) Datum: WGS-84 Azimuth/Bearing: 309 N12W, 6187mils True (-4) Elevation Angle: -14.3 Horizon Angle: -00.2 Zoom: 1.0X Trench box installed on skids on side of W-MN14 MVP: WMN14, WMN15, SMN2 Tick marks every 5'</p>	See Photo		
GPS Location Description	See Photo Photo 5: Excavating trench through aquatic resource.	GPS Location Description	See Photo Photo 6: Trench box in aquatic resource.		
 <p>Date & Time: Fri, Dec 22, 2023 at 11:54:31 EST Position: +037 520007 / -080 707477 (-19.38ft) Altitude: 1800ft (-19.2ft) Datum: WGS-84 Azimuth/Bearing: 289 N17W, 5138mils True (-36) Elevation Angle: -33.6 Horizon Angle: -00.2 Zoom: 1.0X Trench breaker installed on side of W-MN14 and other resources MVP: WMN14, WMN15, SMN2 Tick marks every 5'</p>	See Photo	 <p>Date & Time: Fri, Dec 22, 2023 at 12:25:37 EST Position: +037 520318 / -080 707881 (-17.8ft) Altitude: 1777ft (-19.7ft) Datum: WGS-84 Azimuth/Bearing: 100c S98E, 2560mils True (-38) Elevation Angle: -09.2 Horizon Angle: -00.1 Zoom: 2.0X Backfilling in W-MN14 MVP: WMN14, WMN15, SMN2 Tick marks every 5'</p>	See Photo		
GPS Location Description	See Photo Photo 7: Trench breaker installed.	GPS Location Description	See Photo Photo 8: Backfilling in aquatic resource area.		