WETLAND BIOLOGICAL CONDITIONS ENVIRONMENTAL AUDITOR REPORT

Wetland

Studies and Solutions, Inc.

DAVEY Company

Version 2.2

| Wetland ID: W-AB3-PEM-2 | Crossing Start Date: 11/24/2023 | Crossing Completion Date: 11/29/2023 |
|--------------------------|--|---|
| Milepost: 243.4 | Pre-Con Assessment Date: 11/18/2023 | Post-Con Assessment Date: 12/05/2023 |
| Station: 12862+95 | Cowardin Classification: PEM (PEM, PFO, PSS, POW) | Wetland Impact Area (sq ft.): 6738.73 |
| County: Roanoke | | |

| Item # | Resource Crossing Conditions | N/A | YES | NO |
|--------|--|-----|-----|----|
| | Were equipment mats or other suitable methods utilized under heavy equipment to minimize soil compaction and disturbance in wetlands? | | Х | |
| 2. | Was the existing vegetation removed prior to initiating land disturbance within the resource? | | Х | |
| 3. | Was the top 1-foot (12-inches) of wetland soil segregated and stockpiled separate from trench spoils? | | Х | |
| 4. | Was excess material not needed for backfill removed and disposed of in an upland area? | | Х | |
| 5. | Was the top 12-inches of backfill made with clean native wetland topsoil? | | Х | |
| 6. | Were standard decompaction practices (disking, plowing, cultivating, tilling, or incorporation of organic matter into the topsoil horizon) implemented prior to applying seed? | | Х | |
| 7. | Was wetland topsoil replaced and temporarily seeded? | | Х | |
| 8. | Was permanent seed applied to unsaturated wetlands? | | Х | |
| | Was equipment/timber matting removed from the wetland area properly by vertically lifting, and not pulling through the impact area. | | Х | |
| | Were impervious trench breakers/plugs properly installed within 25-feet of the resource to prevent subsurface erosion to or from the resource area? | | Х | |
| 11. | Was the pre-construction survey data provided and 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? | | х | |
| 4 2 | 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? | | Х | |
| 13. | Was the time of disturbance minimized by conducting resource work continuously to completion? | | Х | |
| 4 4 | Does the post-construction square footage of wetland area appear to be restored to meet or exceed the pre-construction area square footage? | | Х | |
| 4 - | Are bareroot saplings required and/or scheduled to be planted for the dormant season $(10/1 - 4/30)$ in PFO classified wetlands? | Х | _ | |
| 4.0 | 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. | | | Х |

| Item # | 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 |
| 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 - Negligible | 1 - Negligible |
| 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.) | 3 - Marginal | 3 - Marginal |

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Comments/Remarks

11/17/2023 - Pre-Con scheduled for 11/18. El on-site is Dylan. This crew is performing this resource crossing in conjunction with seven other adjacent wetland areas: AB5, AB6-PSS, AB6-PFO-1, AB6-PEM-1, AB6-PEM-2, HS02, EF42. - M. Vierra

11/18/2023 - Pre-construction assessment completed. Timber mats with geotextile underlayment have been installed for access across wetlands, and topsoil was segregated and stored properly. Dewatering structures are installed on both ends of the overall construction area. P1 or super silt fencing may be used to replace diversion berms. Initial construction scheduled for 11/20/2023. - M. Vierra

11/20/2023 - Initial construction was postponed due to forecasted rain; 11/24/23 is the new target date. - M. Vierra

11/24/2023- Trench excavation began within resource area. All soil was segregated and stored on adjacent timber mats. Topsoil removed from 50' buffer zone on CIS & covered in straw. Subsoil removed from 50' buffer zone on CIS & placed as separate stockpile. Wetland topsoil removed & covered in straw. Wetland subsoil removed & placed as separate stockpile. Topsoil/& subsoil procedure repeated for 50' buffer zone on GAS. Pipe welding contained within tents; jeep testing & coating performed; pipe staged in preparation to be lowered into trench.

- M. Vierra

11/25/2023 – Dewatering structure functioning as intended, and water has not overflowed filtration system. The intake filter, filtration bag, dewatering structure, straw bales, & CFS are all functioning as designed. Pipe section tested and & prepared for lowering. - M. Vierra

11/26/2023 - Pipe section was lowered into trench and welded. X-ray QA/QC completed. - M. Vierra

11/27/2023 – Wetland and & upland subsoil backfill began, and concrete bags were staged for trench breaker installation. - M. Vierra

11/28/2023 - Trench breakers installed & subsoil backfill completed. The wetland & upland topsoil was restored in proper locations, and survey team on site for topographical survey as-builts. - M. Vierra

11/29/2023 - Resource restoration completed: Installed P1 silt fencing along border of wetland & upland buffer zones. Impacted areas were seeded and stabilized with clean straw. Second dewatering structure constructed for continued work on adjacent resources. - M. Vierra

12/05/2023 - Post-construction assessment completed. Work on adjacent resources continues; timber-mat travel lane will exist adjacent to resource area until construction is completed on adjacent wetlands and upland areas. - M. Vierra

In accordance with the Mountain Valley Pipeline Consent Decree, dated October 11, 2019, 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.

| This report was written by | Matthew Vierra | Hatten View | 12/05/2023 |
|----------------------------|----------------|-------------|------------|
| | Print Name | Signature | Date |

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Required Photos



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Optional Additional Photos



Photo Description: Site overview after restoration activities.



Photo Description: Site overview. Timber mats remain installed for access to upland areas and adjacent wetland areas.



Photo Description: Second dewatering structure installed to assist with trench dewatering.



Photo Description: Backfill of subsoil through wetland impact area after pipe installation.