



REGION 3

PHILADELPHIA, PA 19103

Report Title: Clean Water Act, Section 404 Inspection Report for Paul Goodwin Site
Inspection Date(s): 07/17/2024
Start Time: 09:10 **End Time:** 11:05
Regulatory Program(s): Inspections authorized pursuant to Clean Water Act, Sections 308 and 404 (33 U.S.C. §§ 1318 and 1344)
Site Name: Paul Goodwin
Site Location: Near Dixie Winds Lane
Bremo Bluff, VA 23022
Latitude: 37.739458 **Longitude:** -78.2234262
County/Parish: Fluvanna County
Site Owner(s): Christopher Lacy
Mailing Address: 115 Carriage Hill Road
Palmyra, Virginia 22974

DSB-ID #: ECAD-5512

Site Contact(s):

Christopher Lacy
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Robert
George

Digitally signed by Robert
George
Date: 2024.09.05
10:08:18 -04'00'

**EPA Inspector
Signature/Date**

Robert George, Inspector, 3ED31
1600 John F. Kennedy Blvd.
Philadelphia, PA 19103

Date

KATELYN
ALMETER

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KATELYN ALMETER
Date: 2024.09.05
12:57:43 -04'00'

**Supervisor
Signature/Date**

Katelyn Almeter, Acting Chief
SDWA & Wetlands Section

Date

DSB-ID #: ECAD-5512

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I. Introduction

On July 17, 2024, the U.S. Environmental Protection Agency (“EPA”) conducted an inspection for compliance with Section 404 of the Clean Water Act pertaining to an Administrative Order on Consent (“Order”, EPA Docket # CWA-03-2022-0039DW). The inspection was conducted as part of injunctive relief monitoring of the aquatic resource restoration activities required by paragraph 17 of the Order. On January 11, 2023, EPA issued a letter approving the Restoration and Mitigation Plan (“RMP”), prepared for Mr. Paul Goodwin by Wetland Studies and Solutions, Inc (“WSSI”).

A. Site Identification

The Site is located on Dixie Winds Lane in Bremono Bluff, Fluvanna County, Virginia, parcel # 60-A-36. The property is approximately 53 acres in size with restoration activities occurring primarily on the eastern portion of the parcel. The approximate coordinates of the Site are 37.739458, -78.2234262. The Site is identified on the entitled “Overall Restoration Plan”, Sheet 4 of 13, prepared by WSSI that was included in the RMP. The Overall Restoration Plan is provided as **Attachment 1**.

During the time of the alleged violations outlined in the Order, Mr. Goodwin was the owner and operator of the Site. Currently, the Site is owned by Mr. Christopher Lacy.

B. Weather and Environmental Conditions

The weather conditions during the inspection were mostly sunny. According to the National Oceanic & Atmospheric Administration’s Record of Climatological Observations for the Charlottesville, VA station, the high temperature for the day was 97°F. A total of 0.15 inches of rain was recorded on July 17, 2024, however, this occurred after the inspection concluded. The recorded rainfall at the Charlottesville, VA, station for the preceding seven-day period before the inspection are displayed in **Table 1** below.

Table 1 – Recorded Rainfall

Date	Rainfall (inches)
7/09/2024	0.00
7/10/2024	0.31
7/11/2024	0.00
7/12/2024	0.31
7/13/2024	0.03
7/14/2024	0.00
7/15/2024	0.07
7/16/2024	0.02

C. Inspection Opening Conference

Opening conference was held on Dixie Winds Lane at the northeast corner of the Site at 9:10 AM. Introductions were conducted, the EPA inspectors displayed their credentials to the current property owner, Mr. Lacy. The EPA explained that the purpose of the inspection was to document conditions of aquatic resources on Site and to evaluate consistency with the conditions proposed in the

RMP and hence compliance with the Order. Attendees of the inspection walkthrough included Laura Mathew and Robert George of the EPA's CWA Section 404 enforcement program, and Roger Black and Ben Frashure of Code Compliance with Fluvanna County, Virginia.

EPA has not made a determination on whether the site/facility is a small business. Should the site/facility find it applicable, the U.S. EPA Small Business Resources Information Sheet can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>.

II. Site Activity

The Site is a privately owned, undeveloped property. Previous earth moving activities impacted regulated streams and wetlands on the Site. Restoration activities were initiated by the current landowner, Mr. Lacy, in the fall of 2023. Mr. Lacy stated that the restoration is ongoing, and he had equipment onsite the week prior to the inspection. Specifically, he stated that he recently replaced culvert 1B which conveys flow from UNT1 under Dixie Winds Lane (culverts identified in **Attachment 1**).

III. Observations

Following opening conference, the inspection began at culvert 1A near the northeastern portion of the restoration area. The inspectors did not observe any flow through culvert 1A (**Attachment 2** – Photographic Log; DSCN5483 to DSCN5485). The inspectors then moved to the west to culvert 1B. Water was present in UNT1 upstream of the culvert (DSCN5486 and DSCN5487). Mr. Lacy stated that the culvert was recently replaced with a 36-inch pipe and the outfall area was recently regraded. Water and vegetation were not present in the outfall of the culvert at the time of the inspection (DSCN5488 to DSCN5490). Additionally, there was not any evidence of stabilization measures such as matting or seeding of the denuded areas. The inspection team followed UNT1 to the southwest and documented its condition, which exhibited strong geomorphic characteristics including Ordinary High-Water Mark, deeply incised bed and banks with exposed roots of woody vegetation (DSCN5492-DSCN5494). Water was not flowing in UNT1 at the time of the inspection. The inspection team observed the confluence of UNT1 with South Creek (DSCN5495) and continued westward in the South Creek channel. At the time of inspection, South Creek possessed strong geomorphic characteristics including Ordinary High-Water Mark, bed and banks, and was flowing from west to east.

The inspection team moved westward and encountered the eastern confluence of South Creek with a ditch. The ditch, a constructed feature to be reclaimed pursuant to the RMP, was excavated in an attempt to divert flow from South Creek (DSCN5500). The ditch was linear and was oriented from west to east and intersected South Creek at two locations. The Overall Restoration Plan, provided as Sheet 4 of 13 in the RMP (**Attachment 1**), proposed the placement of root wads at the eastern terminus of the ditch. The root wads were not present at the time of the inspection (DSCN5501). Water was present in the ditch, indicating that flow from South Creek was being diverted through the channel.

The inspection moved northwestward and continued to document the condition of South Creek. The channel possessed strong geomorphic characteristics including Ordinary High-Water Mark

and bed and banks that were generally stable and well vegetated (DSCN5505 and DSCN5506). Water was flowing in the stream at the time of the inspection at an approximate depth of 14 inches (DSCN5507 and DSCN5508). The inspection team continued to document South Creek. A proposed restoration condition of the Overall Restoration Plan (**Attachment 1**) included the placement of a log vane on the outer bank of South Creek for the purpose of stabilization. A log vane was not present at the time of inspection. The inspection team then proceeded upstream to the western confluence of South Creek with the ditch. The Planting Plan, provided as Sheet 9 of 13 in the RMP (**Attachment 3**), proposed the installation of sedge plugs and live stakes along the disturbed banks of South Creek. The inspection team did not observe any plugs or stakes along the banks.

The inspection team continued in the South Creek channel to the west and encountered the western terminus of the ditch (DSCN5512). A proposed restoration condition of the Overall Restoration Plan (**Attachment 1**) included the placement of root wads at the western terminus of the ditch. The root wads were not present at the time of the inspection. Rather, a berm comprised of unconsolidated fill material was observed blocking the flow from South Creek to the ditch (DSCN5509). The fill material that comprised the berm exhibited redoximorphic features and appeared to be sourced from the opposite bank (DSCN5511, DSCN5513 to DSCN5516, and DSCN5522). Stabilization measures, such as matting or seeding were not present on the newly constructed berm or the on the opposite bank which was denuded. Upended trees with exposed roots were also observed to the south (DSCN5511 and DSCN5521).

The inspection team then moved to the east and documented the condition of the ditch immediately behind the berm. Water was present in the ditch at the time of the inspection (DSCN5519 and DSCN5520). Consistent with the observations made above regarding the eastern terminus of the ditch, the presence of water in the channel indicates active diversion of flow from South Creek through the ditch. A sheen of oxidized iron deposits was observed on the surface of the water (DSCN5526 and DSCN5527). Adjacent to the ditch were unstabilized slopes that were denuded and exhibited evidence of erosion (DSCN5523 and DSCN5524). The channel that had formed in the ditch was measured to be 9 inches deep by 77 inches wide (DSCN5525 and DSCN5526).

The inspection then moved to the northwest along an access path and encountered UNT3. The access path leading to the west of UNT3 was sparsely vegetated at the time of the inspection and evidence of erosion was observed (DSCN5530 and DSCN5531). The inspection team documented that the culvert for UNT3 had been removed. Depressions left by a vehicle with an 8"-wide track were documented within the access road and through the reconstructed stream bed of UNT3 (DSCN5531 and DSCN5532). Water was flowing within the reconstructed channel of UNT3 at the time of the inspection (DSCN5533 to DSCN5535). In the upstream reach, evidence of erosion and sediment deposition was documented within UNT3, and the bed and banks of the channel were not clearly defined or stable. Further downstream, the stream banks appeared stable and were well vegetated (DSCN5536). A proposed restoration condition of the Sediment and Erosion Control Plan, provided as Sheet 6 of 13 of the RMP (**Attachment 4**), included the installation of sediment and erosion control measures including temporary stream crossings, stabilization matting, compost filter socks, mulching and seeding. Sediment and erosion control measures were not observed in this area. Evidence of stream crossings were documented without the requisite erosion controls (DSCN5531 and DSCN5532).

Additionally, large swaths of this area were sparsely vegetated and were not stabilized (DSCN5330-DSCN5335).

The inspectors then moved to the east to document the floodplain wetlands that occurred immediately to the north of South Creek. A soil boring was conducted at 38.738848, -78.23546 within an area where wetland areas were proposed to be seeded with a wetland mix, per the Planting Plan (**Attachment 3**). The soil boring was characterized as: [0-15 inches] 10YR 4/4 sandy fill; [15-21 inches] 10YR 4/3 sandy fill with 40% 10YR 6/4 redoximorphic features; [21-27 inches] 5YR 5/1 sandy loam matrix with 15% 5YR 4/6 redoximorphic features. No hydrology was observed, and the area was sparsely vegetated with approximately 40% Oriental lady's thumb (*Polygonum cespitosum*), 10% crabgrass (*Digitaria sp.*), 5% soft rush (*Juncus effusus*), 5% yellow nutsedge (*Cyperus esculentus*), and trace amount of Chinese bushclover (*Lespedeza cuneata*). Overall, approximately 21 inches of non-native fill was observed over the native hydric soil layer; evidence of wetland hydrology were not present; and the area did not possess a hydrophytic community. The soils, vegetation and hydrology were altered by the discharge of fill. At the time of the inspection, this area was disturbed, did not meet the definition of a wetland, and evidence of seeding with wetland plants was not observed. As noted, wetland hydrology was not observed in this area, likely due to two observations: (i) the presence of a 21" fill layer and (ii) the absence of root wads, which would restore the flow to South Creek. As outlined in a paragraph above, the ditch possessed water and was diverting flow from South Creek. The RMP proposes to restore the hydrology to South Creek, which would also restore the hydrology to the adjacent wetlands. Under the observed condition, the hydrology of the Site was impaired and was not in compliance with the RMP.

The inspection continued east along Dixie Winds Lane and UNT2 was observed. No water was flowing in UNT2 at the time of the inspection and the reconstituted channel did not have clear definable bed or banks. (DSCN5546 to DSCN5549). It did not appear that restoration work had occurred within UNT2.

The inspection terminated at the area where the cars were parked.

IV. Records Review

A review of Site or facility records was not a component of the inspection; therefore, the EPA is not expecting to access business records, including confidential business information ("CBI"). If the Site or facility owner wants to make a CBI claim on information or photographs collected by the inspector during the inspection, they can submit a claim to the EPA. After the Site or facility representative notifies the EPA of the CBI, the EPA representative will mark the CBI as such, and it will be handled as CBI according to the EPA's procedures.

V. Closing Conference

A. Overview

Closing conference was conducted after concluding the inspection walkthrough at approximately 11:05. The EPA inspectors asked Mr. Lacy about the recent restoration activity conducted on the site. Mr. Lacy stated that he employed an operator who used a 160 excavator to cut

the creek bank on the opposite bank of the western terminus of the ditch to construct the berm. Mr. Lacy also stated that he graded mounds of fill in the central area of the Site approximately 3 months before the inspection. The EPA relayed the findings discussed in Section B below to Mr. Lacy and stated that an inspection report would be completed and disseminated within 60 days.

B. Observations Relayed to Site Representative

The EPA stated that evidence of in-stream activity without the proposed stabilization measures or temporary crossings was observed and requested that Mr. Lacy discontinue any additional work in South Creek until oversight of the work by a wetland and stream consultant or other professional could be achieved in accordance with Section 3 of the RMP. The EPA also communicated the general non-compliance observed during the walk through that including the following:

- Absence of root wads at the eastern and western ends of the ditch;
 - The absence of the root wads has allowed continued diversion of flow from South Creek through the ditch;
- Absence of a log vane along the outer bank of South Creek;
- Absence of sedge plugs and live stakes along the disturbed banks of South Creek;
- General lack of sediment and erosion control measures; and
- Presence of fill in wetland areas.

For reference, attached to this inspection report are the details for the root wads (Construction Details, Sheet 12 of 13, **Attachment 5**), log vane (Construction Details, Sheet 11 of 13, **Attachment 6**), planting plan (**Attachment 3**), as well as the sediment and erosion control measures (**Attachment 4**).

Mr. Black of Fluvanna County also stated that outfall protection is needed for UNT1 where recent activity had been conducted. This concluded the inspection.

VI. List of Attachments

- Attachment 1: Overall Restoration Plan, Sheet 4 of 13 of the RMP
- Attachment 2: Photographic Log
- Attachment 3: Planting Plan, Sheet 9 of 13 of the RMP
- Attachment 4: Sediment and Erosion Control Plan, Sheet 6 of 13 of the RMP
- Attachment 5: Construction Details, Sheet 12 of 13 of the RMP
- Attachment 6: Construction Details, Sheet 11 of 13 of the RMP

CONSTRUCTION SEQUENCE

1. A PRE-CONSTRUCTION MEETING SHALL BE HELD ONSITE BETWEEN THE OWNER, CONTRACTOR AND COUNTY INSPECTOR, TWO WEEKS PRIOR TO THE START OF CONSTRUCTION.
2. PERFORM SOIL TESTING TO DETERMINE THE APPLICATION RATES FOR SOIL AMENDMENTS. ALTERNATIVELY, TOPSOIL MAY BE IMPORTED & INCORPORATED INTO THOSE AREAS THAT ARE CURRENTLY BARREN.
3. INSTALL CONSTRUCTION ENTRANCE.
4. INSTALL COMPOST FILTER SOCK PRIOR TO ANY LAND DISTURBING ACTIVITIES.
5. INSTALL CULVERT 2 AND ASSOCIATED OUTLET PROTECTION AS SHOWN ON SHEET 6.
6. STABILIZE AREA EAST OF THE UNNAMED TRIBUTARY 3 CROSSING ACCORDING TO THE EROSION AND SEDIMENT CONTROL PLAN ON SHEET 6.
7. RESTORE THE CONVERGENCE OF UNNAMED TRIBUTARY 3 FROM ITS RELOCATED POSITION. AS SHOWN ON SHEET 7.
8. INSTALL THE TEMPORARY STREAM CROSSING. REMOVE DOWNED TREES THAT HAVE FALLEN INTO THE REMNANT CHANNEL.
9. INSTALL THE LOG VANE IN THE SOUTH CREEK REMNANT CHANNEL.
10. RECONNECT SOUTH CREEK TO THE DISCONNECTED REMNANT CHANNEL BY REMOVING THE BERMS BLOCKING THE ORIGINAL STREAM CHANNEL.
11. AFTER SOUTH CREEK IS RETURNED TO THE PRE-DISTURBANCE CHANNEL, BEGIN TO FILL THE EXISTING DITCH THAT RELOCATED SOUTH CREEK. APPLY ROOT WADS AT BOTH ENDS OF THE RELOCATED CHANNEL'S TIE IN LOCATIONS.
12. REMOVE THE CULVERT CROSSING 'EXISTING CULVERT 3' AND STABILIZE THE BANKS OF UNT-3.
13. REMOVE HIGH SPOTS FROM THE AREA SOUTH OF THE RESTORED SOUTH CREEK TO RESTORE THE WETLANDS TO APPROXIMATE ORIGINAL GRADE.
14. REESTABLISH THE HYDRAULIC CONNECTION FROM UNT-1 TO THE ABANDONED CHANNEL TO THE EAST.
15. FILL THE EXISTING DITCH THAT RELOCATED UNNAMED TRIBUTARY 1.
16. REMOVE HIGH SPOTS FROM THE AREA SOUTH OF DIXIE WINDS LANE TO RESTORE THE WETLANDS TO APPROXIMATE ORIGINAL GRADE.

17. REMOVE THE BUILT-UP PORTION OF DIXIE WINDS LANE, LOCATED ROUGHLY BETWEEN UNT-1 AND THE TOE-SLOPE TO THE WEST.
18. STABILIZE DENUDED AREAS AND AREAS DISTURBED DURING THE IMPLEMENTATION OF THE RESTORATION ACTIVITIES.
19. ONCE THE RESTORATION SEQUENCE STEPS ABOVE AND EQUIPMENT ACCESS IS COMPLETE, EXISTING CULVERT 1A WILL BE REMOVED AND DIXIE WINDS LANE WILL TERMINATE TO THE EAST OF UNNAMED TRIBUTARY 1.
20. UPON COMPLETION OF CONSTRUCTION AND STABILIZATION, THE CONTRACTOR SHALL REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE VESCH AND THE ABOVE NARRATIVE. CUT OPEN AND SPREAD CONTENTS OF THE COMPOST FILTER SOCK EVENLY OVER THE SURROUNDING AREA.





Wetland

Restoration and Solutions, Inc.

a DARYL company

1620 Brook Road
Richmond, Virginia 23220
Phone: 804-442-3330
www.wetlands.com

DIXIE WINDS LANE
RESTORATION AND MITIGATION PLAN

Fluvanna County, Virginia

Overall Restoration Plan

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COMMONWEALTH OF VIRGINIA



REBECCA E. NAPIER
Lic. No. 037737
01/04/2023
PROFESSIONAL ENGINEER

REVISIONS					App. By	Rev. By	Date	Description	No.	DATE: JANUARY, 2023	SCALE: 1" = 40'
No.	Date	Description	No.	App. By							

Horizontal Datum: VCS NAD 83
Vertical Datum: NGVD 29
Boundary and Topo Source: USGS LIDAR & Fluvanna County GIS

Design	Draft	Approved
FWC	FWC	REN

Sheet #
4 of 13

Computer File Name:
L:\31000a\310001341\01 CAD\004-ENG-00-Plan.mxd
4/3/2023 10:00:00 AM



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5483.JPG
Photo taken by: Laura Mathew

Notes: Inlet of existing culvert 1A.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5484.JPG
Photo taken by: Laura Mathew

Notes: Outlet of existing culvert 1A.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5485.JPG
Photo taken by: Laura Mathew

Notes: Downstream view of culvert 1A.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5486.JPG
Photo taken by: Laura Mathew

Notes: UNT1 and inlet of existing culvert 1B.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5487.JPG
Photo taken by: Laura Mathew

Notes: West facing view of UNT1 and inlet of culvert 1B.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5488.JPG
Photo taken by: Laura Mathew

Notes: Outlet of culvert 1B.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5489.JPG
Photo taken by: Laura Mathew

Notes: Southward view of UNT1 from Dixie Winds Lane.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5490.JPG
Photo taken by: Laura Mathew

Notes: Upstream view of UNT1 and culvert 1B. Dixie Winds Lane is in the background.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5492.JPG
Photo taken by: Laura Mathew

Notes: Southward view of UNT1.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5493.JPG
Photo taken by: Laura Mathew

Notes: View of the left bank of UNT1.
Note the deeply incised bed and banks with exposed roots of woody vegetation.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5494.JPG
Photo taken by: Laura Mathew

Notes: Farther downstream in UNT1.
Note the deeply incised bed and banks with exposed roots of woody vegetation.
Dutch auger for scale.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5495.JPG
Photo taken by: Laura Mathew

Notes: Northward view of the confluence
of UNT1 with South Creek.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5496.JPG
Photo taken by: Laura Mathew

Notes: Westward view of South Creek.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5497.JPG
Photo taken by: Laura Mathew

Notes: Westward view of South Creek.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5498.JPG
Photo taken by: Laura Mathew

Notes: Westward view of South Creek.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5500.JPG
Photo taken by: Laura Mathew

Notes: Westward view of South Creek with the ditch in the background.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5501.JPG
Photo taken by: Laura Mathew

Notes: Westward view of the ditch. South Creek is visible in the foreground.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5502.JPG
Photo taken by: Laura Mathew

Notes: Eastward view of vegetation along bank of South Creek.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5503.JPG
Photo taken by: Laura Mathew

Notes: Southward view near the confluence of South Creek and the ditch.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5504.JPG
Photo taken by: Laura Mathew

Notes: Westward view of the ditch.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5505.JPG
Photo taken by: Laura Mathew

Notes: Upstream view of South Creek.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5506.JPG
Photo taken by: Laura Mathew

Notes: Upstream view of South Creek with downed tree.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5507.JPG
Photo taken by: Laura Mathew

Notes: Depth of South Creek at approximately 14 inches.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5508.JPG
Photo taken by: Laura Mathew

Notes: Another view showing the depth of South Creek.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5509.JPG
Photo taken by: Laura Mathew

Notes: Southward view of the western terminus of the ditch. In the foreground is a berm constructed of unconsolidated material which appeared to be excavated from the opposite bank.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5510.JPG
Photo taken by: Laura Mathew

Notes: Westward view of bank opposite the berm.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5511.JPG
Photo taken by: Laura Mathew

Notes: Southward view of South Creek to the west of the ditch. Note the uprooted trees in the background.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5512.JPG
Photo taken by: Laura Mathew

Notes: Eastward view of the ditch behind the berm.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5513.JPG
Photo taken by: Laura Mathew

Notes: Southward view of the far bank located to the west of the berm.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5514.JPG
Photo taken by: Laura Mathew

Notes: Eastward view of the newly constructed berm.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5515.JPG
Photo taken by: Laura Mathew

Notes: View of South Creek channel proximate to the berm.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5516.JPG
Photo taken by: Laura Mathew

Notes: Closeup view of the newly constructed berm.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5518.JPG
Photo taken by: Laura Mathew

Notes: Close up view of fill material comprising the berm. Note the reduced matrix and redoximorphic features.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5519.JPG
Photo taken by: Laura Mathew

Notes:



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5520.JPG
Photo taken by: Laura Mathew

Notes: Eastward view of the ditch behind the berm. Note the water in the background.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5521.JPG
Photo taken by: Laura Mathew

Notes: View of the right bank of South Creek with upended trees and other vegetation.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5522.JPG
Photo taken by: Laura Mathew

Notes: View of depleted matrix and redoximorphic features in the unconsolidated material comprising the berm.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5523.JPG
Photo taken by: Laura Mathew

Notes: View of surface water within the ditch.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5524.JPG
Photo taken by: Laura Mathew

Notes: Another view of the ditch, with denuded areas in the foreground.



Paul Goodwin

Date: 17 July 2024

Photo ID: DSCN5525.JPG

Photo taken by: Laura Mathew

Notes: Depth of the water measured at 9 inches.



Paul Goodwin

Date: 17 July 2024

Photo ID: DSCN5526.JPG

Photo taken by: Laura Mathew

Notes: Width of the ditch channel measured at 77 inches. Note the sheen of oxidized iron on the water surface in the foreground.



Paul Goodwin

Date: 17 July 2024

Photo ID: DSCN5527.JPG

Photo taken by: Laura Mathew

Notes: Close up of the measurement of the width of the ditch channel. Sheen of oxidized iron on the water surface also visible.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5528.JPG
Photo taken by: Laura Mathew

Notes: Upgradient view of access path.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5529.JPG
Photo taken by: Laura Mathew

Notes: Downgradient view of access path.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5530.JPG
Photo taken by: Laura Mathew

Notes: West facing view upgradient of where Dixie Winds Lane was extended beyond UNT3.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5531.JPG
Photo taken by: Laura Mathew

Notes: East facing view of the former access road approaching UNT3.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5532.JPG
Photo taken by: Laura Mathew

Notes: View of an 8-inch depression from a tracked vehicle through UNT3.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5533.JPG
Photo taken by: Laura Mathew

Notes: Upstream facing view where culvert 3 was once located.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5534.JPG
Photo taken by: Laura Mathew

Notes: View of bare soil proximate to UNT3.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5535.JPG
Photo taken by: Laura Mathew

Notes: Another view of bare soil along bank of UNT3.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5536.JPG
Photo taken by: Laura Mathew

Notes: Westward view of vegetation, including black willow saplings along UNT3.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5537.JPG
Photo taken by: Laura Mathew

Notes: View of soil boring located at 38.738848, -78.23546.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5538.JPG
Photo taken by: Laura Mathew

Notes: Sandy fill material at the surface of the soil boring.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5539.JPG
Photo taken by: Laura Mathew

Notes: Close up view redoximorphic features present in the native hydric soil located at >21" below ground surface.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5540.JPG
Photo taken by: Laura Mathew

Notes: View of the soil boring.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5541.JPG
Photo taken by: Laura Mathew

Notes: Close up of layer change at 21 inches.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5542.JPG
Photo taken by: Laura Mathew

Notes: Fill material pushed up on trunk of an American sycamore (*Platanus occidentalis*) sapling.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5543.JPG
Photo taken by: Laura Mathew

Notes: View facing south of graded fill material in area designated as a wetland in the restoration plan. Note the area is elevated and sparsely vegetated.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5544.JPG
Photo taken by: Laura Mathew

Notes: Western edge of the graded area with steep drop off.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5545.JPG
Photo taken by: Laura Mathew

Notes: Another view of the steep drop off from the graded area.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5546.JPG
Photo taken by: Laura Mathew

Notes: View of UNT2 flowpath.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5547.JPG
Photo taken by: Laura Mathew

Notes: View of UNT2 flowpath.



Paul Goodwin
Date: 17 July 2024
Photo ID: DSCN5548.JPG
Photo taken by: Laura Mathew

Notes: View of UNT2 flowpath.



Paul Goodwin

Date: 17 July 2024

Photo ID: DSCN5549.JPG

Photo taken by: Laura Mathew

Notes: Close up view of UNT2.

