



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Director
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March 31, 2022

Mr. Michael Liberati
Corteva Environmental Remediation
974 Centre Road, Building 735
Wilmington, DE 19805

VIA ELECTONIC MAIL

**Re: 2020 Post-Construction Bank Management Area Repairs
Former DuPont Waynesboro Site AOC 4
Waynesboro, Virginia
EPA ID# VAD003114832**

Dear Mr. Liberati:

This letter acknowledges the receipt and review of the *2020 Post-Construction Bank Management Area Repairs Memorandum* dated January 13, 2021, submitted to the Virginia Department of Environmental Quality, Office of Remediation Programs (VDEQ) by AECOM on behalf of Corteva Agriscience. The memorandum documents repair activities at bank management areas completed in the fall of 2020.

VDEQ has no comments. If you have any questions, you may contact me at 540-209-3663 or by email at William.jordan@deq.virginia.gov.

Sincerely,

A handwritten signature in black ink that reads "W. Calvin Jordan".

W. Calvin Jordan
Corrective Action Project Manager
Office of Remediation Programs

cc: DuPont Waynesboro Correspondence File
Josh Collins, AECOM
Graham Simmerman, VRO VDEQ
Jacqueline Morrison, US EPA

Project name:
Former DuPont Waynesboro Site
Area of Concern 4

To:
Michael Liberati, Corteva
Nancy Grosso, Corteva

Project ref:
60594242

CC:
Josh Collins, AECOM

From:
Cameron Dixon, PE AECOM
Andrew Miano, AECOM

Date:
January 13, 2021

Memo

Subject: 2020 Post-Construction Bank Management Area Repairs

This memorandum documents Bank Management Area (BMA) repair activities completed at the City Shops, Allied Ready Mix (ARM), and Shiloh Baptist Church (SBC) BMAs in fall of 2020. The need for corrective actions were identified during the 2019 Leaf-off and 2020 Leaf-on inspections conducted in accordance with the Maintenance Plan included as Appendix M of the Basis of Design Report, Phase 1A BMAs, South River AOC 4 (Anchor QEA et al., 2016). Corrective actions included extending an outfall pipe at the City Shops BMA, removal of the improvised weir structure at the ARM BMA, and placement of planting substrate into geocells, replacement of erosion control fabric, and planting of native vegetation at the SBC BMA. Attachments to this document include:

- Appendix A: Post-Construction Bank Repair Photographic Log

Corrective Actions

The sections below briefly describe the need for corrective actions at each BMA as well as a summary of the completed repairs; photographs of the repairs are included in Appendix A.

Allied Ready Mix BMA

The 2019 Leaf-off BMA inspection identified an improvised weir structure had been constructed by unknown parties along a portion of the upstream BMA from Station 00+50 to Station 00+100 (AECOM, 2019). High water conditions during spring months limited the ability to fully assess the condition of the embedded stone toe at the toe of slope until late in the summer of 2020. Upon inspection it was determined that while the moved stone to did not structurally affect the stability of the slope, it was creating increased scour at the downstream end of the weir where the flow was being directed at the toe of slope. Corrective actions were recommended to replace the moved toe rock back to the toe of slope as it was originally placed to limit potential for future scour. Summit Environmental mobilized to the ARM BMA the week of September 21st, 2020 to conduct the repairs. Laborers manually moved the stone toe rock back to the toe of slope and blended it in with the existing stone toe (See Appendix A; Photo 1 and Photo 2).

City Shops BMA

The City of Waynesboro daylighted a 12-inch stormwater outfall which had been covered during the remediation at the City Shops BMA. The outfall located at Station 00+350, was identified during the 2019 Leaf-off inspection (AECOM, 2020a). During the daylighting of the outfall, portions of the stone toe were removed and sections of geocell were cut creating areas of localized scour along the bank. AECOM and Summit discussed the condition

of the bank and outfall with the City Shops maintenance staff and it was determined that the outfall needed to remain operational and that it should be extended to direct flow away from the bank face. Summit Environmental mobilized to the City Shops BMA during the week of October 7, 2020 to complete the repair. In order to minimize the potential for scour, the 12-inch outfall pipe was extended to the toe of slope. Damaged geocell was then repaired and/or replaced as necessary and additional natural stone armoring was placed above the extended outfall with a gradual transition to the existing grade on the upstream and downstream transitions (See Appendix A – Photo 3 and Photo 4).

Shiloh Baptist Church BMA

Repairs of a section the Shiloh Baptist Church remediated bank at Station 00+450 were required after a sloughing of excess planting substrate was identified over approximately 140 linear feet in the late summer/fall 2020. Summit Environmental mobilized to the site the week of October 13, 2020 to complete the repairs as outlined in the Post Construction Erosion – Corrective Action Memorandum (AECOM 2020b). The bank was repaired by removing damaged erosion control fabric and excess topsoil so that only 1-2" of planting substrate was above the geocell. Next, the bank was seeded with an erosion control planting mix and new erosion control fabric was placed and secured to the repaired bank and native seed was broadcast throughout the repaired area. Focused monitoring on the scour and vegetation establishment will continue to determine if additional corrective actions are required for the Shiloh Baptist Church BMA.

Monitoring

The bank repairs completed as part of these efforts will be closely monitored during the upcoming routine BMA maintenance inspections. Additionally, these repairs and all completed BMAs will continue to be inspected following significant storm events as outlined in the AOC 4 Maintenance Plan (Anchor QEA et al., 2016).

References

- AECOM. 2019. 2018/2019 Allied Ready Mix BMA – Leaf-off Maintenance Inspection. *Former DuPont Waynesboro Site, Area of Concern 4*. March 2019.

- AECOM. 2020a. 2020 Leaf-on Maintenance Inspection, *Former DuPont Waynesboro Site, Area of Concern 4*. November 2020.

- AECOM. 2020b Post Construction Erosion – Corrective Action Memorandum, *Former DuPont Waynesboro Site, Area of Concern 4*. September 2020.

- Anchor QEA, AECOM, and E.I. du Pont de Nemours and Company. 2016b. Basis of Design Report, Phase 1A Bank Management Areas. *South River Area of Concern 4*. September 2016.

Appendix A: Post-Construction Bank Repair Photographic Log

Client Name:

Corteva

Site Location:

Allied Ready Mix BMA

Project No.

60594242

Photo No.
1

Date:
10/8/2020

Direction Photo Taken:

Southeast

Description:

Station 00 + 50'

Rocks that were moved by unidentified members of the public from the remediated bank into the stream channel were placed back along the stone toe. Vegetation cover is established along remediated bank.



Photo No.
2

Date:
9/21/2020

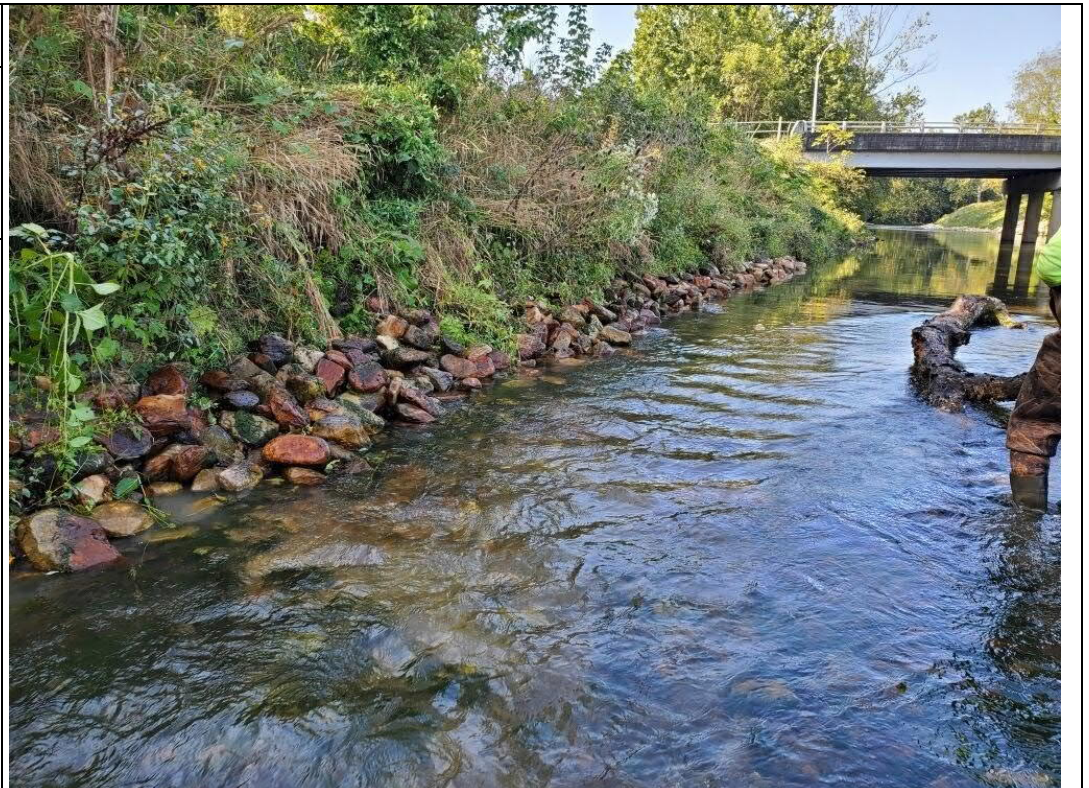
Direction Photo Taken:

Southeast

Description:

Station 00 + 100'

Rocks that were moved into the stream channel to form an improvised weir were placed back along the stone toe to stop the potential for scour to occur. Vegetation cover is established along remediated bank.



Client Name: Corteva	Site Location: City Shops BMA	Project No.: 60594242
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Photo No.: 3	Date: 10/14/2020
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Direction Photo Taken:
Northwest

Description:
Station 00 + 350'
Remediated bank disturbed by the City of Waynesboro Public Works Department to daylight an existing stormwater outfall pipe was repaired. Daylighted outfall was extended and rocks were added to stabilize the remediated bank and limit bank erosion.



Photo No.: 4	Date: 10/14/2020
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Direction Photo Taken:
Northwest

Description:
Station 00 + 350'
Closeup photo of the daylighted outfall that was extended during bank repairs.



Client Name:

Corteva

Site Location:

Shiloh Baptist Church BMA

Project No.

60594242

Photo No.
5

Date:
10/14/2020

Direction Photo Taken:

South

Description:

Station 00 + 450'

Bank repair at the Shiloh Baptist Church BMA. In order to repair the damaged section of the bank, the damaged coir mat was removed, topsoil was replaced to an appropriate depth, and a new coir mat was installed and seeded.



Photo No.
6

Date:
10/14/2020

Direction Photo Taken:

South

Description:

Station 00 + 450'

Additional view of the bank repair that occurred at the Shiloh Baptist Church BMA.

