COMMONWEALTH of VIRGINIA

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September 18, 2019

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

VIA ELECTRONIC MAIL

Re: 2019 Leaf-on Maintenance Inspection Reports for Allied Ready Mix, City Shops and Constitution Park BMAs
Former DuPont Waynesboro Site, Area of Concern 4
Waynesboro, Virginia
EPA ID# VAD003114832

Dear Mr. Liberati:

This letter acknowledges the receipt and review of the 2019 Leaf-on Maintenance Inspection Reports (Report) dated August 19, 2019, submitted to the Virginia Department of Environmental Quality, Office of Remediation Programs (VDEQ) by AECOM on behalf of the E.I DuPont de Nemours and Company (DuPont).

The Department has no further comments and accepts the submittal as complete.

If you have any questions, you may contact me at 540-574-7802 or by email at William.jordan@deq.virginia.gov.

Sincerely,

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

cc: DuPont Waynesboro Correspondence File
Joel Hennessey, US EPA
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Memorandum

To	Michael Liberati, Corteva Environmental Remediation Nancy Grosso, Corteva Environmental Remediation	Page 1 of 3
CC	Cameron Dixon, AECOM Kristy Hoffman, AECOM	
Subject	City Shops BMA - 2019 Leaf-on Maintenance Inspection Former DuPont Waynesboro Site, Area of Concern 4	
From	Andrew Miano, AECOM Joshua Collins, AECOM	
Date	August 19, 2019	

This memorandum summarizes the 2019 Leaf-on Maintenance Inspection (inspection) for the City Shops Bank Management Area (BMA) conducted June 13, 2019. The inspection was conducted in compliance with the scope described in 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), and represented the third inspection following completion of the interim measures construction in March, 2018. The purpose of the maintenance inspection is to identify potential BMA maintenance needs, focusing on vegetative growth, bank stability, and the integrity of the installed bank remediation features. Additional attachments to this memorandum include:

- Table 1 – Maintenance inspection log
- Appendix A - Photographic log
- Appendix B - Waynesboro Off-Site Cap Areas Inspection Record Sheet

Findings

The inspection documented stable bank conditions throughout the remediated portions of the BMA, with very limited areas of exposed erosion control fabric as identified below. A brief summary of findings is provided below; complete details of the maintenance inspection are included in Table 1.

Vegetation

- The upper portions of the bank exhibited dense stands of native grasses, planted saplings and shrubs throughout the BMA.
- Planted grasses, samplings, and live stakes have been effective in preventing the colonization of invasive plants, such as Japanese knotweed (*Fallopia japonica)*.
- Larger trees left in place during remediation along the BMA are healthy and show no sign of stress, with the exception of one sycamore tree at 00+300. VDEQ identified minor scour at the junction of trees left in place and the placed geocell during recent site visits. This condition was evaluated and at the time of the inspection, no areas of scour were identified due to extensive herbaceous vegetation. This condition will be re-evaluated during the 2019 leaf-off inspection.
- Japanese knotweed was documented in limited areas of the BMA and in the areas that were not remediated; these areas will be monitored and treated (if necessary) to prevent their spread in the restored portions of the BMA.

Stability

- River banks generally maintained a consistent bank angle throughout the BMA as constructed with no sign of surface erosion, scour, or undercutting at the toe of slope.
- There was no evidence of recent erosion or “at-risk” trees (e.g. trees that may no longer be stable due to erosion) within the remediated areas. However, multiple “at-risk” trees were documented with localized scour and erosion, between the two remediated sections of the BMA.
- An area of erosion upstream (outside of the remedial footprint) of Primary BMA B was documented and will continue to be closely monitored as part of the 2019 leaf-off inspection to evaluate the need for potential corrective action.

Installed Features

- The installed rock toe was intact and is continuing to show evidence of desired sediment deposition in some locations.
- Currently, two installed LWD features have been displaced from at the City Shops BMA; they are currently stable and within the remedial project area. They will continue to be monitored and corrective actions will be implemented if warranted.
- Geocell and erosion control fabric were intact and showed no sign of wear.
- No scour was documented at the toe of slope within the remediated portions of the BMA.
- Erosion control fabric was primarily covered in native vegetation and was only exposed in a few areas at the top of bank and around tree bases.
- Geocell was not exposed anywhere along the BMA.

The maintenance inspection conducted at the City Shops BMA documented the integrity of the BMA and found almost no overall change from the 2018 leaf-off inspection (AECOM, 2019). The establishment of native planted grasses, saplings/live stakes, and mature trees continue to maintain a stable bank and minimize the spread of invasive plant species into the BMA.

PATH FORWARD

The following conditions documented during this inspection will be closely monitored during the 2019 leaf-off inspection to identify the need for corrective action:

- Erosion at the upstream transition of the Primary BMA B area.
- The health and stability of the one sycamore tree at 00+300.
- Evaluate the junctions of trees left in place during construction and the placed geocell for signs of scour.
- Stability of the LWD located at 00+400 and 00+850’ that shifted in 2018. At this time, no corrective actions are proposed as both pieces of LWD appear to be stable and are not impacting bank stability.

REFERENCES

AECOM 2019. 2018/2019 City Shops BMA Leaf-off Maintenance Inspection, Former DuPont Waynesboro Site, Area of Concern 4. March 2019.

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

Table 1
2019 Leaf-on Maintenance Inspection Log
City Shops BMA
Former DuPont Waynesboro Site, Area of Concern 4

	Undercutting				Exposed Roots			At Risk Trees			Installed Stabilization Features Intact					Local Scour			
Station (ft)[1]	Approximate Bank Angle (Degrees)	Consistent Grade (Y/N)[2]	Notes	Photo # (Appendix A)	Exposed Roots (L/M/H)[3]	Notes	Photo # (Appendix A)	At Risk Trees Present (Y/N)[4]	Notes	Photo # (Appendix A)	Rock Toe/LWD (Y/N)[5]	Geocell (Y/N)[6]	Erosion Control Fabric (Y/N)[6]	Notes	Photo # (Appendix A)	Scour Present (Y/N)[7]	Notes	Photo # (Appendix A)	Overall Change Since Previous Inspection (Y/N)
00 - 25	85	Y		1,2,3	H	High quantity of exposed roots on the bank. 95% vegetated	1,2	Y	At risk trees present	1,2,3	NA	NA	NA		1,2,3	Y	Scour present throughout	1,3	N
00 + 00	70	N (see notes)	Lower bank; ~60 degrees Upper bank; ~80 degrees	4	N	No woody plants adjacent to edge of water; minimal vegetation present on lower bank	4	N	No woody plants adjacent to edge of water	4	Y	Y	Y		4	Y	Some scour present from rock toe to mid bank	4	N
00 + 50	45	Y		5	N	Predominantly native vegetation along top of rock toe	5,6,7	N	No woody plants adjacent to edge of water	5,6,7	Y (LWD and Rock toe)	Y	Y	No geocell or erosion control fabric exposed. LWD intact	5	N	No scour present along rock toe	5,6,7	N
00 + 100	45	Y		8	N	Predominantly native vegetation along top of rock toe	8	N	No woody plants adjacent to edge of water	8	Y (LWD and Rock toe)	Y	Y	No geocell or erosion control fabric exposed. LWD intact	8	N	No scour present along rock toe	8	N
00 + 150	45	Y		9,10	NA	Predominantly native vegetation along top of rock toe	9,10	N	No woody plants adjacent to edge of water	9,10	Y (LWD and Rock toe)	Y	Y	No geocell or erosion control fabric exposed. LWD intact	9,10	N	No scour present along rock toe	9,10	N
00 + 200	45	Y		11,12	NA	Predominantly native vegetation along top of rock toe	11,12	N	No woody plants adjacent to edge of water	11,12	Y	Y	Y	No geocell or erosion control fabric exposed. Rock stairs and gate present on upper half of bank	11	N	No scour present along rock toe; outfall pipe present within rock toe	11	N
00 + 250	45	Y		13	NA	Predominantly native vegetation along top of rock toe	13	N	No woody plants adjacent to edge of water	13	Y (LWD and Rock toe)	Y	Y	No geocell or erosion control fabric exposed. LWD intact	13	N	No scour present along rock toe	13	N
00 + 300	45	Y		14	NA	Predominantly native vegetation along top of rock toe	14	N	Smallest old growth sycamore is mostly dead/dying	14	Y (LWD and Rock toe)	Y	Y	Some erosion control fabric exposed around tree base; no geocell exposed; LWD intact	14	N	No scour present along rock toe	14	Y (Smallest old growth sycamore is mostly dead/dying)
00 + 350	45	Y		15	NA	Native vegetation above rock toe consists of grasses, planted saplings, and mature sycamore trees.	15	N	No at risk trees present	15	Y (LWD and Rock toe)	Y	Y	Some erosion control fabric exposed around tree base; no geocell exposed; LWD intact	15	N	No scour present along rock toe	15	N
00 + 400	45	Y		16,17,18	NA	Native vegetation along top of rock toe; some large trees present	16,17,18	N	No at risk trees present	16,17,18	Y (LWD and Rock toe)	Y	Y	No geocell or erosion control fabric exposed. Upstream LWD has shifted and is parallel with another piece of installed LWD downstream of 00 +400'.	16,17,18	Y	No scour present along rock toe; two outfall pipes present within rock toe	16,17,18	N
00 + 450	45	Y		19	NA	Native vegetation along top of rock toe; some large trees present	19	N	No at risk trees present	19	Y (LWD and Rock toe)	Y	Y	Some erosion control fabric exposed at top of bank and around tree bases; no geocell exposed.	19	N	No scour present along rock toe	19	N
00 + 500	45	Y		20,21,22	NA	Native vegetation along top of rock toe; some large trees present	20, 21	N	No at risk trees present	22	Y	Y	Y	Some erosion control fabric exposed at top of bank and around tree bases; no geocell exposed.	20,21	N	No scour present along rock toe	20	N
00 + 550	70	Y		23	H	Lower bank consists mostly of exposed roots	23	Y	Several large trees with exposed roots hanging over the river	23	NA	NA	NA	Section was not remediated	23	Y	Entire lower bank shows large amounts of scour	23	N
00 + 600	75	Y		24	H	Lower bank consists mostly of exposed roots	24	Y	Sycamore has many exposed roots along the lower bank	24	NA	NA	NA	Section was not remediated	24	Y	Entire lower bank shows large amounts of scour	24	N
00 + 650	85	Y		25,26,27	H	More erosion, roots further exposed	25,26,27	Y	At risk trees present along the upper bank.	25,26,27	NA	NA	NA	Section was not remediated	25,26,27	Y	Entire bank shows large amounts of scour	25,26,27	N
00 + 700	90	Y		28	H	Large amounts of erosion have exposed many roots on the upper bank	28	Y	At risk trees present along the upper bank.	28	NA	NA	NA	Section was not remediated	28	Y	Entire bank shows large amounts of scour	28	N
00 + 750	90	N (see notes)	Beginning of second remediated area. Upstream bank; ~90 degrees, downstream bank; ~45 degrees	29,30,31	M	Erosion has exposed roots on the upper bank on the upstream portion of this location	29, 31	Y	At risk trees present upstream of rock toe	29, 30, 31	Y	Y	Y	Beginning of second remediated section	29,30	Y	Large amounts of scour above rock toe	29,31	N
00 + 800	40	Y		32,33	NA	Vegetation consists of planted grasses and live stakes/saplings	32, 33	N	No at risk trees present	32,33	Y (LWD and Rock toe)	Y	Y	No geocell exposed; erosion control fabric primarily covered in vegetation; LWD intact	32,33	N	No scour present along rock toe	32	N
00 + 850	25	N (see notes)	Lower bank; ~25 degrees Upper bank; ~30 degrees	34,35,36	NA	Vegetation consists of planted grasses and live stakes/saplings	34,35,36	N	No at risk trees present	34,35,36	N (LWD) Y (Rock toe)	Y	Y	Erosion control fabric primarily covered in vegetation; LWD moved from its installed position. The root ball side of the installed LWD has pivoted downstream from its original position and is now angled into the river.	34,35,36	N	No scour present along rock toe	34,35,36	N
00 + 880	20	Y		37,38	NA	Vegetation consists of planted grasses and live stakes/saplings	37,38	N	No woody plants adjacent to edge of water	37,38	Y (Rock toe)	Y	Y	Erosion control fabric primarily covered in vegetation.	37,38	N	No scour present along rock toe and lower bank	37,38	N

Notes:
1, Inspection station is described as the distance (feet) upstream (-) or downstream (+) from the start of the BMA (00); example, Station 00 + 50' is 50 feet downstream from the start of the BMA
2, A significant deviation from continuous bank slope or break in grade may be used as an indicator of undercutting; consistent bank grade is evaluated as Y (yes) or N (no)
3, The extent to which roots are exposed may provide a relative measure of the magnitude of apparent erosion; extent of exposed roots is evaluated as L (low), M (moderate), H (high), or NA (not applicable- no exposed roots)
4, At-risk trees (i.e., trees that lean towards the river) typically have a greater potential to fall into the river dislodge the bank soil and erosion-control products immediately around and above the tree; presence of at-risk trees is evaluated as Y (yes) or N (no)
5, Installed rock toe and large woody debris (LWD) features are monitored to ensure that they are anchored and determine whether material has sloughed, or been eroded, or moved downstream; these installed features are evaluated as Y (yes, intact), N (no, not intact), or NA (not applicable- no installed features to monitor)
6, Installed geocell and erosion control fabric are monitored to ensure that they are intact and determine whether material is exposed or visible; these installed features are evaluated as Y (yes, intact), N (no, not intact), or NA (not applicable- no installed features to monitor)
7, The presence of local scour is assessed at the toe and center of the bank, per inspection station, as well as approximately 25 feet upstream and downstream of the start and end of the BMA; the presence of scour is evaluated as Y (yes) or N (no)
Grey shaded cells from 00+550 to 00+700 are portions of the bank that were not remediated.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 1	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 – 25'

~85 degree bank angle; at risk trees present; scour present; 95% vegetated.

Photo No. 2	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 – 25'

Upstream view from location 00-25'; high quantity of exposed roots on the bank; at risk trees present; scour present; 95% vegetated.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No.	Date:
3	6/13/2019

Direction Photo Taken:

West

Description:

Station 00 – 25'

Downstream view from location 00-25'; high quantity of exposed roots on the bank and scour present upstream of remediation.

Photo No.	Date:
4	6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 00'

~60-80 degree bank angle; no at-risk trees present, no exposed roots; evidence of scour throughout; installed rock toe intact.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No.	Date:
5	6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 50'

~45 degree bank angle; no scour present; installed rock toe intact; native vegetation above rock toe; LWD intact.

Photo No.	Date:
6	6/13/2019

Direction Photo Taken:

West

Description:

Station 00 + 50'

Upstream view of 00 + 50' location; no scour present; installed rock toe intact.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 7	Date: 6/13/2019

Direction Photo Taken:

North

Description:

Station 00 + 50'

Downstream view of 00 + 50' location; installed rock toe intact; LWD intact.

Photo No. 8	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 100'

~45 degree bank angle; no scour present; installed rock toe intact; native vegetation above rock toe with small patches of the invasive knotweed present; LWD intact.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 9	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 150'

~45 degree bank angle; no scour present; installed rock toe intact; native vegetation above rock toe; LWD intact.

Photo No. 10	Date: 6/13/2019

Direction Photo Taken:

South

Description:

Station 00 + 150'

Upstream view from 00 + 150'; installed rock toe and LWD intact.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 11	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 200'

~45 degree bank angle; no scour present; installed rock toe intact; staircase / gate access present and intact; native vegetation above rock toe.

Photo No. 12	Date: 6/13/2019

Direction Photo Taken:

North

Description:

Station 00 + 200'

Downstream view of 00 + 200' LWD is intact; Native vegetation is dominant.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 13	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 250'

~45 degree bank angle; no scour present; installed rock toe intact; native vegetation above rock toe; LWD intact.

Photo No. 14	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 300'

~45 degree bank angle; no scour present; installed rock toe intact; native vegetation above rock toe; tree located in center of photo is dead; LWD intact; some erosion control fabric exposed around tree bases towards top of bank.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 15	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 350'

~45 degree bank angle; no scour present; installed rock toe intact; native vegetation above rock toe consists of grasses, planted saplings, and mature sycamore trees; LWD intact; some erosion control fabric exposed around tree base; no at risk trees present.

Photo No. 16	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 400'

~45 degree bank angle; slight scour present; installed rock toe intact; Installed large woody debris (LWD) has shifted downstream; native vegetation above rock toe; no at risk trees present; some erosion control fabric exposed at top of bank.

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PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 17	Date: 6/13/2019

Direction Photo Taken:

West

Description:

Station 00 + 400'

~45 degree bank angle; installed rock toe intact; native vegetation above rock toe; no at risk trees present.

Photo No. 18	Date: 6/13/2019

Direction Photo Taken:

North

Description:

Station 00 + 400'

~45 degree bank angle; slight scour present; erosion control fabric exposed at top of bank and around tree bases; installed rock toe intact; Upstream LWD has shifted and is parallel with another piece of installed LWD downstream of 00 +400'.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 19	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 450'

~45 degree bank angle; no scour present; installed rock toe intact; native vegetation above rock toe; some erosion control fabric exposed at top of bank and around tree bases.

Photo No. 20	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 500'

~45 degree bank angle; no scour present; installed rock toe intact; vegetation consists of grasses, hydrangeas, and mature sycamore trees; some erosion control fabric exposed along top of bank.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 21	Date: 6/13/2019

Direction Photo Taken:

Southwest

Description:

Station 00 + 500'

Upstream view of 00+500' ~no scour present; installed rock toe intact; predominantly native vegetation at top of bank; no at risk trees present; some erosion control fabric exposed along top of bank.

Photo No. 22	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 500'

Downstream view of 00 + 500' immediately before the end of the rock toe; no scour present; installed rock toe intact.

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PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No.	Date:
23	6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 550' (non-remediated transect)

~70 degree bank angle; high quantity of exposed roots; at risk trees present; scour present.

Photo No.	Date:
24	6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 600' (non-remediated transect)

~75 degree bank angle; high quantity of exposed roots; at risk trees present; scour present.

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PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 25	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 650' (non-remediated transect)

~85 degree bank angle; high quantity of exposed roots; at risk trees present; scour continues to advance up the bank.

Photo No. 26	Date: 6/13/2019

Direction Photo Taken:

North

Description:

Station 00 + 650' (non-remediated transect)

~85 degree bank angle; high quantity of exposed roots; at risk trees present; scour advancing under root masses of at risk trees.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No.	Date:
27	6/13/2019

Direction Photo Taken:

West

Description:

Station 00 + 650' (non-remediated transect)

~85 degree bank angle; high quantity of exposed roots; several at risk trees present.

Photo No.	Date:
28	6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 700' (non-remediated transect)

~90 degree bank angle; high quantity of exposed roots; at risk trees present; scour advancing towards toe of slope.

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PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 29	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 750'

~90 degree bank angle; high quantity of exposed roots; scour present upstream of bank restoration.

Photo No. 30	Date: 6/13/2019

Direction Photo Taken:

North

Description:

Station 00 + 750'

Upstream view of 00 + 750'; high quantity of exposed roots; scour present; at risk trees present upstream outside of remedial footprint.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 31	Date: 6/13/2019

Direction Photo Taken:

West

Description:

Station 00 + 750'

Additional upstream view of 00 + 750' showing the beginning of the rock toe.

Photo No. 32	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 800'

~40 degree bank angle; no scour present; installed rock toe intact; vegetation consists of planted grasses and live stakes/saplings; erosion control fabric primarily covered in vegetation.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No. 33	Date: 6/13/2019

Direction Photo Taken:

Southwest

Description:

Station 00 + 800'

Downstream view of 00 + 800'; no scour present; installed rock toe intact; erosion control fabric primarily covered in vegetation.

Photo No. 34	Date: 6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 850'

~25-30 degree bank angle; no scour present; installed rock toe intact; vegetation consists of planted grasses and live stakes/samplings; erosion control fabric primarily covered in vegetation.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No.	Date:
35	6/13/2019

Direction Photo Taken:

Southwest

Description:

Station 00 + 850'

Upstream view of 00 + 850'; no scour present along installed rock toe; planted vegetation present and healthy.

Photo No.	Date:
36	6/13/2019

Direction Photo Taken:

Northeast

Description:

Station 00 + 850'

Downstream view of 00 + 850'; LWD moved from its installed position. The root ball side of the installed LWD has pivoted downstream.

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APPENDIX A
PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Corteva	City Shops BMA	60594243

Photo No.	Date:
37	6/13/2019

Direction Photo Taken:

Northwest

Description:

Station 00 + 880'

~20 degree bank angle; no scour present; installed rock toe intact; vegetation consists of grasses, trees and live stakes; erosion control fabric primarily covered in vegetation.

Photo No.	Date:
38	6/13/2019

Direction Photo Taken:

Northeast

Description:

Station 00 + 880'

Downstream view of 00 + 880' at the end of the remedial footprint.

Appendix BInspe- Waynesboro Off-Site Cap Areas

Inspection Record Sheet

Maintenance Plan

Location and property owner name: City Shops BMA		
Item	Status/ Maintenance Needs	Repairs Needed?
Access Roads	NA	NA
Trails	Stairs Intact	1
Drainage Structures	Drainage Structures Intact	1
Outfall Structures	Outfall Structures Intact	1
Rip-Rap Protection	Rip-Rap Intact	1
Cap System Vegetative Cover	Plantings healthy and have been effective in preventing the colonization of invasive plants; cap system primarily covered in vegetation	1
Cap System Geosynthetics	Limited fabric exposed	1
Cap System Slope Stability	Slope is consistent and stable along remediation	1
Cap System Subsidence	None observed	1
Fencing and Gates	Fencing and gates intact	1

* 1. Functioning properly; no repairs needed

2. Repairs needed (describe why, what and where), but not time critical

3. Time critical repair needed (describe what and where)

* * Yes/ No

Comments: LWD shifted downstream at 400' and 880'

Inspected by: Andrew Hally and Andrew Miano Date: June 13, 2019