



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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September 7, 2018

Mr. Michael Liberati  
DuPont Corporate Remediation Group  
Chestnut Run Plaza 715-236  
Wilmington, DE 19805

### VIA ELECTRONIC MAIL

**Re: AOC 4 Maintenance Plan  
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 AOC 4 Maintenance Plan dated January 2018, submitted to the Virginia Department of Environmental Quality, Office of Remediation Programs (VDEQ) by AECOM on behalf of the E.I du Pont 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 703-583-3825 or by email at [Kurt.Kochan@deq.virginia.gov](mailto:Kurt.Kochan@deq.virginia.gov).

Sincerely,

A handwritten signature in cursive script, appearing to read 'Kurt W. Kochan'.

Kurt W. Kochan  
Corrective Action Project Manager  
Office of Remediation Programs

cc: DuPont Waynesboro Correspondence File  
Joel Hennessey, US EPA  
Ralph Stahl, DuPont  
Ceil Mancini, Joshua Collins, AECOM

# AOC 4 Maintenance Plan

DuPont Former Waynesboro Plant  
Waynesboro, Virginia

Submitted on behalf of:  
E.I. du Pont de Nemours and Company

Submitted by:  
AECOM  
Sabre Building  
Suite 300  
4051 Ogletown Road  
Newark, DE 19713

Date: January 2018

# DuPont Former Waynesboro Site

## AOC 4 Maintenance Plan

### Table of Contents

#### Project References

<b>1.0</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Background.....	1
1.2	Scope.....	2
1.3	DuPont Responsibilities .....	2
1.3.1	Short-term .....	2
1.3.2	Long-term.....	3
1.4	Property Owner Responsibilities .....	3
1.5	Mutual Responsibilities.....	4
<b>2.0</b>	<b>Notification Process .....</b>	<b>5</b>
2.1	Future Activities.....	5
2.1.1	Allowable Activities.....	5
2.1.2	Management of Change Activities .....	5
2.1.3	Emergency Activities .....	6
2.1.4	Unanticipated Events .....	6
2.2	Notification Procedure .....	6
2.3	Management of Change Procedure.....	6
<b>3.0</b>	<b>Inspection and Maintenance .....</b>	<b>7</b>
3.1	Routine Activities.....	7
3.2	Required Documentation.....	7

#### List of Attachments

Attachment 1 Notification Process Flowchart with Contact Information

Attachment 2 Inspection Record Sheet

Attachment 3 AOC 4 Repair Report Template

## PROJECT REFERENCES

### **South River Science Team Office:**

508 West Main Street  
Waynesboro, Virginia 22980

### **Project Contacts:**

#### **DuPont**

Michael Liberati  
Chestnut Run Plaza 730  
974 Centre Street  
Wilmington, DE 19805  
(302) 598-9936

#### **Virginia Department of Environmental Quality**

Kurt Kochan  
629 East Main Street  
Richmond, VA 23219

### **Document Repositories\*:**

#### **Waynesboro Public Library**

600 S Wayne Ave  
Waynesboro, VA 22980

\*Documents are also maintained at the South River Science Team Office

## 1.0 Introduction

The purpose of this Maintenance Plan is to outline procedures to be followed for future activities on public- and privately- owned properties that have undergone remediation by DuPont. *Unanticipated events* may occur that have the potential to impact the integrity of the remedy, and a response by DuPont will be required. There are also *allowable activities* that may be performed by the property owner. Such activities are detailed in Section 2.1. These procedures are in place to ensure that the integrity of the remedy is not interrupted should these activities and events occur.

This Maintenance Plan is intended for use by the City of Waynesboro and by individual/private property owners for parcels that undergo remedial construction, and is part of the Administrative Record for the former DuPont Waynesboro plant off-site area, Area of Concern 4 (AOC 4). It becomes effective after remedy construction for each Bank Management Area (BMA) is complete. Design and construction activities will be addressed in a separate document or documents.

### 1.1 Background

The former DuPont Waynesboro plant, located on the South River, Virginia, operated as a textile plant from 1929 to 1950 using mercuric sulfate in the manufacturing process. Historical mercury releases to the river resulted in accumulation in river depositional areas, on the floodplain and on the river banks. Eroding bank soils with elevated mercury concentrations are the largest single source of mercury to the South River, and as such are targeted for remediation.

The first phase of bank soil remediation occurred at Constitution Park from October 2016 to February 2017; remediation will continue in an upstream to downstream fashion, targeting banks contributing the greatest mercury loads to the river.

Phase 1 of the interim remedial measures (IRM) involves the reach from the former plant to two miles downstream. Owing to the size, linear nature and spatial variability of the river system, the remedial approach requires the river system to be divided into manageable segments/areas (BMAs) to optimize construction efficiency and to reduce disruption to the community. The Constitution Park section is the first BMA to be completed.

Since most of the properties to be remediated are not owned by DuPont, it is important to describe protocols for maintaining the integrity of the remedy.

Detailed information regarding site history, remedial investigations, and corrective action are included in the Administrative Record. These documents can be found in the following locations:

- Copies of the Administrative Record are maintained in the following locations and are available on the South River Science Team website, [southriverscienceteam.org](http://southriverscienceteam.org):
  - South River Science Team Office  
508 West Main Street  
Waynesboro, VA 22980

- Virginia Department of Environmental Quality  
629 East Main Street  
Richmond, VA 23219

## 1.2 Scope

The scope of this Maintenance Document includes:

- (Remainder of) Section 1: Defines responsibilities of the parties.
- Section 2: Provides the notification process and defines activities.
- Section 3: Describes inspection and maintenance of the properties.

## 1.3 DuPont Responsibilities

Short-term and long-term DuPont responsibilities are described in this section.

### 1.3.1 Short-term

The following short-term responsibilities apply for approximately one year following construction completion:

- Continue communication with property owners in accordance with the Community Relations Plan.
- Provide contact information and notification procedure to follow in case of unanticipated events.
- Monitor stabilized river bank areas quarterly for the first post-construction year, or after a severe storm event to confirm that stabilization measures are functioning as designed and complete maintenance if needed.
- Monitor native vegetation monthly from March to November for the first year following construction to confirm establishment of healthy, self-sustaining habitat.
- Manage unhealthy or irreparably damaged trees as needed.
- Implement invasive vegetation removal program. The specific schedule for this program will be determined during remedial design.
- Establish uniform environmental covenants (UECA) and record with deeds for affected properties.
- Following construction activities, provide property owners with detailed maps showing affected areas of their property. The map will also indicate where mowing is permitted and where trees and shrubs planted as part of the construction should remain undisturbed.
- Notify VDEQ within 48 hours of significant<sup>1</sup> damage from storm events or owner report of significant damage.
- For significant damage, mobilize to inspect and develop a repair plan within 7 days of storm events or owner report.

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<sup>1</sup> Significant damage is defined as impacting more than 10% of the cap surface area or impacting areas below topfill.

### 1.3.2 Long-term

The following DuPont responsibilities will begin approximately the second year following construction completion and will continue unless and until superseded by a revision to this Maintenance Plan or the UECA attached to the parcel:

- Continue communication with property owners in accordance with the Community Relations Plan.
- Conduct routine inspections of affected areas annually for the next five post-construction years and after severe storms, and perform maintenance if needed.
- After the next five post-construction years have elapsed, conduct inspections every five years if no repairs have been conducted in the preceding five years. DuPont will retain responsibility for repairing any damage caused by unanticipated events, for assisting with Management of Change activities, and for conducting any maintenance required to preserve the integrity of the cap.
- Notify VDEQ within 48 hours of significant damage from storm events or owner report of significant damage.
- For significant damage, mobilize to inspect and develop a repair plan within 7 days of storm events or owner report.
- Continue to manage unhealthy or irreparably damaged trees as needed.
- Continue invasive species management program for five years post construction.
- Provide property owners with access to inspection and maintenance records.
- Continue to maintain and update public document repository. At a minimum, the repository will be updated every two years following construction completion.
- Update Community Relations Plan and this Maintenance Plan as needed and inform property owners of any changes. At a minimum, this Maintenance Plan will be updated and property owners will be provided a new notification procedure flowchart when any contact information changes.
- Provide reports to VDEQ to document cap repairs.
- Provide annual notification to VDEQ that the activity and use limitations imposed in the UECA recorded with the deed to each parcel are being observed.
- Provide other notifications to VDEQ as required by the UECA.
- Provide Professional Engineer (PE) oversight as required by VDEQ. This will include PE signature and stamp if required, provided the PE is engaged throughout any process that requires his or her signature.

## 1.4 Property Owner Responsibilities

Property owner responsibilities include the following:

- Inform DuPont of changes to contact information (email, telephone, address change, name change, etc.) or if property is sold.
- Allow DuPont representatives to access property for inspection and repairs as needed. DuPont will provide advance notice to request access.

- Be familiar with the lists of allowable and non-allowable activities for affected areas.
- Contact DuPont if unanticipated events occur, using the notification procedure provided in this Plan.
- Contact DuPont prior to planning any activity in the affected area that is not listed in the allowable activities section of this agreement.

## **1.5 Mutual Responsibilities**

It is essential that the parties work collaboratively to achieve mutual goals of maintaining optimal parcel use and ensuring remedy integrity. DuPont and the property owner will work together to achieve the following:

- Maintain open communications. This will be facilitated by responsibilities listed in Sections 1.3 and 1.4 such as timely notification of changes in contact information.
- Follow Management of Change procedure (See Section 2.3) as appropriate.
- Share information regarding excavation activities, excavated materials and contact with affected soil in accordance with the project Materials Management Plan (MMP) to be developed during the project design phase.



## 2.0 Notification Process

This section provides procedures and plans for various types of activities including unanticipated events.

### 2.1 Future Activities

This section defines most foreseeable potential future activities and events that have the potential to affect the remediated areas. When an activity or event occurs that is not listed, the property owner shall contact DuPont following the procedure described in Section 2.2. This section applies only to affected areas shown on the post-construction map provided to the property owner by DuPont.

#### 2.1.1 Allowable Activities

Allowable activities may be undertaken at any time without prior notification to DuPont. Allowable activities are those considered unlikely to damage the cap over the remediated areas.

- Mowing (only in areas shown as “mowing permitted” on the post-construction map provided to the property owner following cap construction)
- Tree trimming (does NOT include tree removal unless stump is left in place)
- Recreational activities such as fishing, hunting, boating access, etc.
- Emergency repairs detailed in Section 2.1.3

#### 2.1.2 Management of Change Activities

This includes any activity that may penetrate the cap over remediated areas, potentially creating exposure to affected soils or groundwater. The following activities that could penetrate the cap may be allowed if the Management of Change procedure in Section 2.3 is followed, including:

- Tree removal, unless stump is left in place
- Removing vegetation (except for mowing)
- Planting any vegetation deeper than 6”, because it may disturb the geomembrane installed as part of the cap
- Activities that may damage vegetation or soil stabilization measures, such as ATV use or livestock access
- Construction activities, such as for a dock, storage building, or picnic pavilion
- Any other intrusive activity in remediated areas that is not included in the “Emergency Activities” list in Section 2.1.3
- Installation of a canoe or kayak launch area or fishing or observation platforms, except as permitted by a UECA
- Installation of foot paths to provide access to, or along the river
- Utility crossings

### 2.1.3 Emergency Activities

The provisions of this section allow for emergency response that may disturb cap integrity, such as utility repairs. In the case of an emergency notification of DuPont should be made as soon as possible, but is not required for the emergency activity to occur.

Emergency activities may include but are not limited to:

- Replacement of utility poles, when required to restore power to consumers
- Repair or replacement of water, sanitary sewer, storm sewer, and natural gas piping when needed to maintain service to consumers or alleviate an immediate threat (flooding, natural gas explosion threat, etc.)
- Driving heavy equipment such as a fire truck or ambulance over caps during an emergency

### 2.1.4 Unanticipated Events

This list includes unanticipated events that have the potential to affect the integrity of the cap over remediated areas. Notify DuPont if any of the listed events occurs in a remediated area. DuPont will inspect the affected area of the cap to confirm there is no threat to the integrity of the cap, and conduct any needed repairs. Unanticipated events include:

- Flood
- Storm damage, such as fallen trees
- Any event that causes soil disturbance deeper than one foot
- Wildlife activities that may disturb soils, such as groundhog burrows
- Any other event that may affect cap integrity.

If in doubt, call the notification contact to discuss.

## 2.2 Notification Procedure

A one-page chart describing the notification procedure is attached to this agreement (Attachment 1).

## 2.3 Management of Change Procedure

As documented in the AOC 4 RCRA Facility Investigation and Human and Ecological Risk Assessments, soils remaining under caps in remediated areas contain levels of mercury that are below thresholds for the protection of Human Health. However, disruption of these soils may create an impact to the environment. Therefore, in accordance with VDEQ regulations, soils beneath the capped areas cannot be disturbed unless certain procedures are followed.

DuPont must be notified before the initiation of work if any non-emergency activity that may affect the integrity of the cap is to be performed. A list of these activities is included in Section 2.1.2. DuPont will assist the landowner in following the requirements of the MMP so that environmental impacts can be avoided.

As a rule of thumb: “When in doubt, call notification contact”.

## 3.0 Inspection and Maintenance

### 3.1 Routine Activities

DuPont will conduct the following activities to confirm integrity of the remedy:

- Quarterly inspections of affected areas for the first year post-construction and then annual inspections for five years, including post-storm inspections
- Following the initial six-year maintenance program, inspections every five years if no repairs have been performed in the preceding 5 years
- Maintenance as required, including, but not limited to, cap repairs and tree/shrub removal
- Invasive vegetation removal program at intervals to be determined during remedial design

### 3.2 Required Documentation

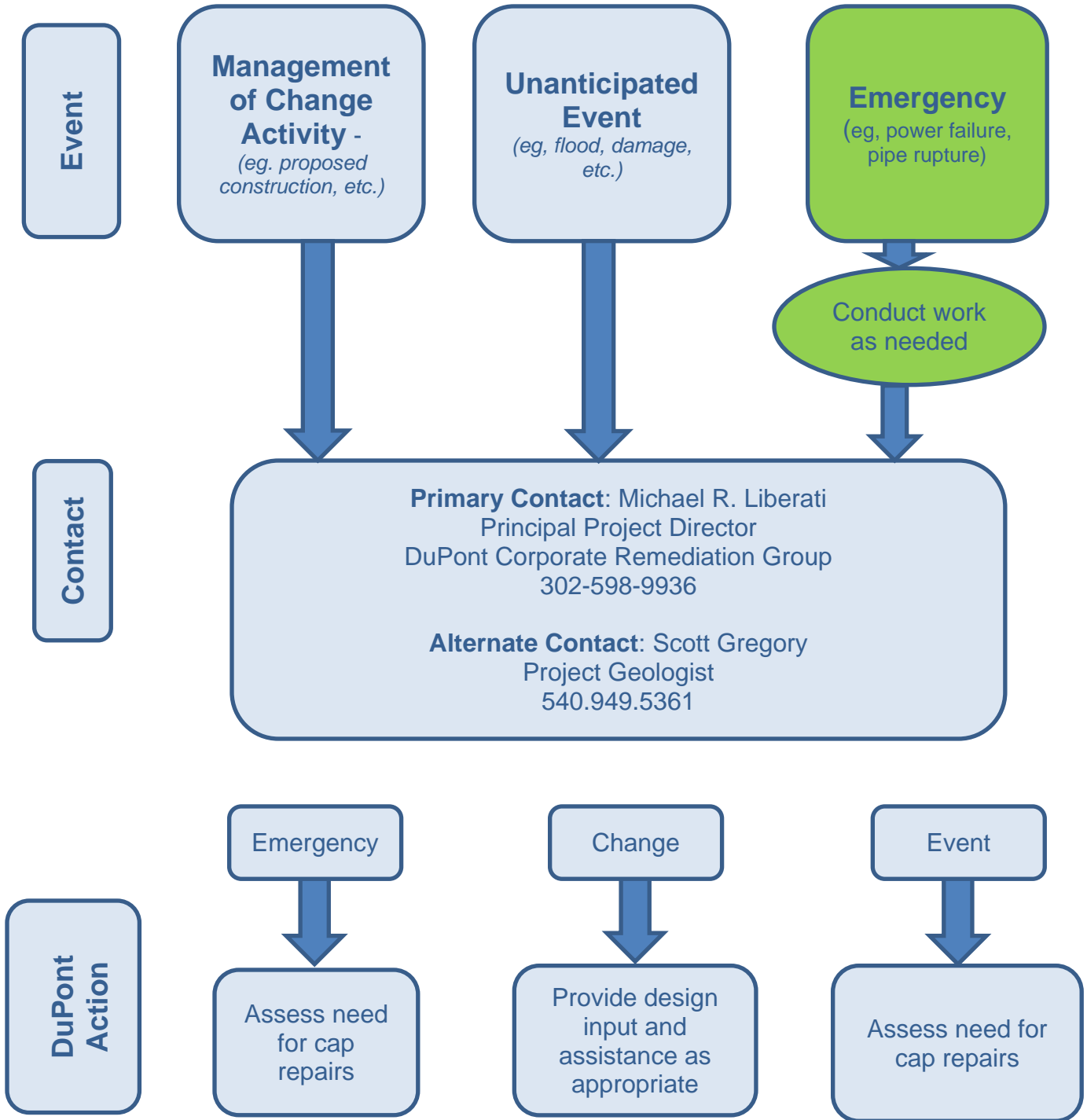
The results of each inspection will be recorded by DuPont or their representatives using the inspection sheet shown in Attachment 2. Minor repairs, if any, will also be noted on the inspection sheet.

Any significant repairs, including the results of any survey conducted for such repairs, will be documented in the report format shown in Attachment 3. This report will be submitted to VDEQ within 60 days of completing any repairs.

Property owners can view completed inspection sheets at the South River Science Team Office (508 W. Main Street, Waynesboro, VA 22980). Copies of inspection sheets will also be available on the South River Science Team website: [southriverscienceteam.org](http://southriverscienceteam.org).

**Attachment 1 - Notification  
Process Flowchart with  
Contact Information**

**Attachment 1  
Waynesboro Off-Site Cap Areas  
Notification Procedure**



## **Attachment 2 - Inspection Report Sheet**

**Attachment 2-Waynesboro Off-Site Cap Areas  
Inspection Record Sheet  
Maintenance Plan**

<b>Location and property owner name:</b>		
Item	Status/Maintenance Needs*	Repairs Needed?
Access Roads		
Trails		
Drainage Structures		
Outfall Structures		
Rip-Rap Protection		
Cap System Vegetative Cover		
Cap System Geosynthetics		
Cap System Slope Stability		
Cap System Subsidence		
Fencing and Gates		

- \*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:

Inspected by: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment 3 – AOC 4  
Repair Report Template**



# AOC 4 Repair Report Template

DuPont Former Waynesboro Site  
Waynesboro, Virginia

Submitted on behalf of:  
E.I. du Pont de Nemours and Company

Submitted by:  
AECOM  
Sabre Building  
Suite 300  
4051 Ogletown Road  
Newark, DE 19713

Date:

# Table of Contents<sup>1</sup>

- 1.0 Introduction and Purpose .....**
  - 1.1 Objectives .....
  - 1.2 Report Organization .....
- 2.0 Site Description and History .....**
- 3.0 Repair Scope of Work.....**
- 4.0 Pre-Construction Activities.....**
  - 4.1 Construction Regulatory Approval and Permits .....
  - 4.2 Other Required Documents.....
    - 4.2.1 Materials Management Plan.....
- 5.0 Construction Activities.....**
  - 5.1 Project Participants .....
  - 5.2 Definable Features of Work.....
  - 5.3 Mobilization and Site Preparation .....
  - 5.4 Survey.....
  - 5.5 Repairs .....
- 6.0 Construction QA and QC.....**
  - 6.1 Quality Control Activities .....
  - 6.1.1 Documentation .....
  - 6.1.2 Implementation and Control Measures.....
  - 6.1.3 Inspection.....
  - 6.1.4 Verification .....
  - 6.1.5 Testing.....
  - 6.2 Quality Assurance Activities .....
  - 6.2.1 Submittal Review .....
  - 6.2.2 Construction Observation.....
  - 6.2.3 Review of Contractor Reports .....
  - 6.3 Project Documentation.....
- 7.0 Health and Safety.....**
  - 7.1 Health and Safety Plan.....
  - 7.2 Air Monitoring.....
- 8.0 Conclusions .....**

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<sup>1</sup> Report contents will be similar to the template, but sections may be changed, deleted, or added to accommodate the reporting needs of any specific repair project.

**List of Figures**

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 As-built Final Grade

**List of Appendices**

- Appendix A Survey Record Drawings
- Appendix B Daily Construction Reports with Photographs
- Appendix C Material Delivery Tickets