

STORMWATER POLLUTION PREVENTION PLAN

HOWARD COUNTY ALPHA RIDGE LANDFILL MARRIOTTSVILLE, MARYLAND



Prepared for:

Howard County Department of Public Works
Bureau of Environmental Services
6751 Columbia Gateway Drive, Suite 514
Columbia, Maryland 21046

Prepared by:

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Hunt Valley, Maryland 21031

JULY 2015

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for

**HOWARD COUNTY
ALPHA RIDGE LANDFILL
MARRIOTTSVILLE, MARYLAND**

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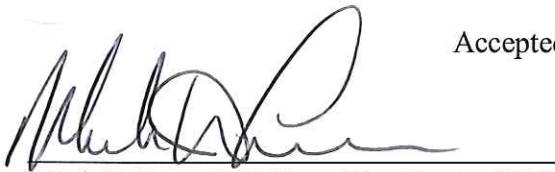
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Accepted and Approved By:



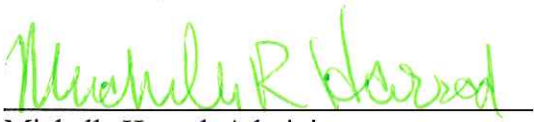
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LIST OF ACRONYMS AND ABBREVIATIONS

ARL	Alpha Ridge Landfill
AST	Aboveground Storage Tank
BES	Bureau of Environmental Services
BMP	Best Management Practice
CFR	Code of Federal Regulations
CSCE	Comprehensive Site Compliance Evaluation
DA	Drainage Area
DMR	Discharge Monitoring Report
DNR	Department of Natural Resources
DOT	Department of Transportation
DPW	Department of Public Works
HAZCOM	Hazard Communication
HHW	Household Hazardous Waste
LFGE	Landfill Gas to Energy
MDE	Maryland Department of the Environment
MEMA	Maryland Emergency Management Agency
MS4	Municipal Separate Storm Sewer System
MSP	Maryland State Police
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
OWS	Oil Water Separator
P2	Pollution Prevention
RCC	Residents' Convenience Center
SMD	Stormwater Management Division
SOP	Standard Operating Procedure
SPCC	Spill Pollution, Control, and Countermeasure
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USEPA	U.S. Environmental Protection Agency
UST	Underground Storage Tank

CERTIFICATION

The following certification statement must be signed and dated by an individual who meets the requirements of Part II.C, of the 12-SW. This certification must be re-signed in the event of a SWPPP modification in response to a trigger for corrective action.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Mark DeLuca, P.E.
*Deputy Director, Howard County Department of Public Works
Chief, Howard County Bureau of Environmental Services*

Date

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1.0 INTRODUCTION

1.1 BACKGROUND

This Stormwater Pollution Prevention Plan (SWPPP) is for Alpha Ridge Landfill (ARL) in Marriottsville, Maryland, which is owned and operated by Howard County. The SWPPP was developed in order to comply with the 1990 amendments to the Clean Water Act that established the National Pollutant Discharge Elimination System (NPDES) permitting system. In addition, development of this SWPPP complies with the Maryland Department of the Environment (MDE) General Discharge Permit 12-SW (henceforth referred to as the 12-SW), which authorizes the discharge of stormwater associated with industrial activity to waters of the State of Maryland. A copy of the 12-SW permit is located in Appendix A.

The purpose of a SWPPP is to identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges from the site. It also serves as a framework for pollution prevention activities and a guidance document for implementing Best Management Practices (BMPs) to minimize stormwater pollution.

This SWPPP has been prepared following MDE and U.S. Environmental Protection Agency (USEPA) guidelines:

- *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* (USEPA 832-R-92-006, September 1992)
<http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000469L.txt>
- USEPA Summary Guidance for the preceding document (USEPA 833-R-92-002, October 1992)
http://www.kdheks.gov/stormwater/download/developing_industrial_swp2_plans_summary.pdf
- *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators* (USEPA 833-B-09-002, February 2009)
http://www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf
- Chesapeake Bay Restoration Guidance
<http://www.mde.state.md.us/programs/Permits/WaterManagementPermits/WaterDischargePermitApplications/Pages/ChesapeakeBayRestorationGuidance.aspx>

Additional data and information has been used from the most recent revisions to the 2000 Maryland Stormwater Design Manual, Volume I & II (May 2009), which includes significant details on BMPs and the stormwater requirements from MDE.

1.2 PERMIT REQUIREMENTS

Howard County was issued a State Discharge Permit Number 13-DP-3224, NPDES Permit MD0067865 on 6 January 2015 (effective 2 February 2015) for discharge from the groundwater remediation system at ARL. Section Q of the Special Conditions of the discharge permit

includes a reference to and notification that the stormwater section of the permit will be covered by MDE's General Permit No. 12-SW for Stormwater Discharges associated with Industrial Facilities (12-SW) and that stormwater requirements will be removed from the issued 13-DP-3224. Six (6) months from the 13-DP-3224 effective date of 2 February 2015, Howard County must submit a Notice of Intent (NOI) for the 12-SW. A copy of the NOI can be found in Appendix B.

Part III.C of the 12-SW requires the development and implementation of a SWPPP. The SWPPP must address potential pollution sources of stormwater, and the control measures to prevent pollution to the receiving water body. This SWPPP addresses the requirements set forth in the 12-SW for each of the drainage areas at the site.

1.3 DISTRIBUTION

The SWPPP will be distributed to Howard County Department of Public Works (DPW) Bureau of Environmental Services (BES) and each member of the Pollution Prevention (P2) Team, as described in Appendix D. Updates to the SWPPP will also be distributed to each team member as they are prescribed and will be made available online at <http://howardcountymd.gov/BES.htm>.

1.4 MODIFICATIONS TO THE SWPPP

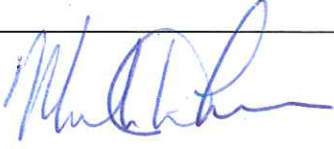
The SWPPP should be modified whenever necessary to address "triggering conditions" as defined in the 12-SW. This SWPPP is to be amended when the following triggering conditions occurs:

- A significant change in design, construction, operation, or maintenance at ARL that creates a potential for the discharge of pollutants to the waters of the State of Maryland;
- If this SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with industrial activity at ARL; and/or
- In response to corrective actions.

The certification statement will be re-signed in accordance with 12-SW Signatory Requirements for modifications which are in response to corrective actions. The Corrective Action Procedure is defined in Section 7.2.

For SWPPP modifications, the following table will be maintained to log the description of the modification, the name of the person making it, and the date and signature of that person.

Table 1-1. SWPPP Modification Log

Description of Modification	Signature of SWPPP Modifier	Date
Original SWPPP		November 2010
Revision 1		June 2011
Revision 2 – Included Trailer Storage and Pilot Composting Facility		April 2012
Revision 3 – Contact information changes due to staff changes		March 2013
Revision 4 – Reflects the new MDE 12-SW General Permit and Sector-Specific requirements.		June 2015
Revision 5 – UST and AST changes, contact information changes		5/19/17

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2.0 ALPHA RIDGE LANDFILL CONTACT INFORMATION

Howard County DPW owns and operates Alpha Ridge Landfill. Contact information for facility operators, owners, and 24-hour emergency contacts are identified in the table located in the front of this document. Contact information for federal, state, and local government agencies that require notification or may provide assistance in the event of a spill are also located in the table.

2.1 STORMWATER POLLUTION PREVENTION TEAM

ARL has created a P2 Team that provides a forum for identifying and addressing stormwater pollution concerns at the facility, and to ensure that the SWPPP is appropriately implemented. The P2 Team consists of members of Howard County DPW as well as ARL personnel. The P2 Team is responsible for the following:

- Supporting implementation of all NPDES permit(s), SWPPP requirements, and BMPs;
- Identifying any changes in ARL operations, maintenance, design, or BMPs to determine whether revisions must be made to this SWPPP;
- Providing quality assurance and quality control for all recordkeeping and internal reporting that are part of the SWPPP implementation;
- Supporting the Routine Facility Inspections; Quarterly Visual Inspections; and Comprehensive Site Compliance Evaluations;
- Identifying and implementing Corrective Actions;
- Maintaining recordkeeping;
- Providing regular P2 training to ARL employees;
- Maintaining consistency between the SWPPP and other environmental management plans and permits.

The P2 Team will meet at least annually to discuss stormwater-related problems, issues, or concerns. The Team Leader may call additional meetings, as needed, to address specific events or issues. Additional attendees, such as consultants, vendors, or representatives of other County departments, may be invited to the meetings to provide perspective on stormwater pollution issues or input to solving complex site problems. The P2 Team will also ensure that the training described in Section 5.0 occurs annually, or more frequently as deemed necessary by the P2 Team.

Members of the ARL P2 Team and their contact information are identified in Appendix D.

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3.0 POTENTIAL POLLUTANT SOURCES

3.1 DESCRIPTION OF FACILITY AND FACILITY ACTIVITIES

ARL is located at 2350 Marriottsville Road, Marriottsville, Howard County, Maryland, and is operated by Howard County's DPW. The coordinates of the facility are 39.3050°N and 76.9019°W. The site is classified into the following industry sectors categorized by the Standard Industrial Classification (SIC) codes covered by the 12-SW General Discharge Permit:

- Sector A: Timber Products*,
- Sector C Subsector C1: Agricultural Chemicals*,
- Sector L: Landfills and Land Application Sites,
- Sector N Subsector N2: Source-separated Recycling Facilities*, and
- Sector AD.a: Department of Public Works and Highway Maintenance Facilities.

* The operations which fall under these sectors are considered ancillary uses of the facility.

The facility has a total of 550 acres of land, of which 190 acres is permitted for landfill operations. The 68 acre cell was capped in 1997, which included installing landfill gas extraction and groundwater remediation systems. In January 1993, a 38-acre lined cell was established and included a leachate handling system. Presently, the 38-acre cell continues to accept less than ten tons of waste per day; all remaining residential and commercial trash collected is shipped to a privately-operated landfill in King George County, Virginia. A landfill gas-to-energy (LFGE) facility was added to ARL in 2012 to beneficially use the gas naturally produced from waste decomposition in the landfill. A portion of the electricity generated from the LFGE facility is used for internal loads while the remaining electricity is exported to the regional grid. An additional 84 acres permitted for landfilling operations is currently undeveloped. Location and site maps are included in Appendix E.

In addition to landfilling operations, ARL serves as a recycling center, which houses a public drop-off area, referred to as the Residents' Convenience Center (RCC), for materials including used oil, anti-freeze, cooking oil, batteries (wet cell), construction and demolition debris, carpet, curbside recyclables, cardboard, tires, styrofoam, scrap metal, and food scraps. In addition, Howard County collects paint onsite for recycling and potential reuse at other locations. Clean Harbors collects oil-based paints. ARL combines and mixes white paint, which is sold to the Loading Dock. The rest of the colored paint is sent offsite for recycling. ARL also accepts old appliances and electronics for recycling. Household hazardous wastes (HHW) such as household cleaners, pesticides and herbicides, and rechargeable batteries are also accepted on certain days and collected by Clean Harbors for offsite disposal.

Access to ARL is provided by a main landfill roadway located off of Marriottsville Road. Access to the RCC and public drop-off areas are controlled by a guard gate. Access to the landfill is controlled by the scale house. ARL's maintenance area contains a maintenance shop, offices and storage sheds. A salt dome, leachate storage tank, and two potable water towers are located on or immediately adjacent to the site. Disposal trucks proceed directly to the tipping area after passing through the scales.

Fuel, oil, and waste oil storage at ARL consists of 4,794 gallons of fixed aboveground storage, 105 gallons of portable storage, 1,155 gallons of small quantity drum storage, and 1,056 gallons of oil-filled operational equipment. Additionally, ARL contains 30,000 gallons of underground storage capacity.

Discharge of stormwater at ARL to Waters of the State was previously regulated by Special Condition Q of the Individual Industrial NPDES permit, 07-DP-3224, issued on 1 September 2009. ARL received their newly issued permit (State Discharge Permit Number 13-DP-3224, NPDES Permit MD0067865) on 6 January 2015, effective on 2 February 2015.

General location and detailed site-specific maps are located in Appendix E.

3.2 POTENTIAL POLLUTANT SOURCES BY DRAINAGE AREA

ARL features 18 main drainage areas (DAs), ranging in size from 2.13 to 71.93 acres. Seven DAs are served by their own structural outfall, while the remainder of the DAs discharge water via overland surface runoff. All outfalls were observed and verified during a site inspection conducted on 28 March 2014 and a follow-up inspection conducted on 6 April 2015. The receiving water body is the Little Patuxent River (02060006), which borders the landfill property. MDE has identified waters of the Little Patuxent River as impaired by cadmium, nutrients – phosphorus, sediment, and impacts to biological communities. A portion of the stormwater from ARL discharges directly in the Little Patuxent River and the rest discharges into an upstream unnamed tributary to the Little Patuxent River.

The estimated area of industrial activity at the site that is exposed to stormwater is approximately 190 acres. All leachate from the landfill is controlled and directed into the leachate tank where it is piped directly into the sanitary sewer system. Drainage areas are identified in the site-specific maps located in Appendix E.

3.2.1 Drainage Area 1

<i>Primary Activities:</i>	<i>Closed landfill</i>
<i>Drainage Area:</i>	<i>44.67 acres</i>
<i>Imperviousness:</i>	<i>Low</i>
<i>Number of reported spills (2012-2015):</i>	<i>0</i>
<i>Largest reported spills (2012-2015):</i>	<i>No spills</i>
<i>Potential Pollutants:</i>	<i>Leachate</i>
<i>Comments:</i>	<i>Outfall X01 and Monitoring Point 01. Area drains via overland and channel flow to North pond where it exits via Outfall X01.</i>

DA 1 is situated in the northwestern portion of the closed landfill cell. No industrial activity takes place in DA 1. The drainage area is grassed over with only minor amounts of impervious surfaces comprised of a few small access roads. DA 1 conveys stormwater runoff to the stormwater management wet pond (North) to the north. Stormwater is detained in the North pond until it is absorbed or it is discharged to the adjacent wetland area via Outfall X01. The North pond also receives the discharge water from the stormwater ponds in DA 5 (South pond)

and DA 2 (East pond). Closed and capped landfill drainage areas require no Benchmark Testing (See 6.1.1).

3.2.2 Drainage Area 2

Primary Activities: Closed landfill
Drainage Area: 26.52 acres
Imperviousness: Low
Number of reported spills (2012-2015): 0
Largest reported spills (2012-2015): No spills
Potential Pollutants: Leachate
Comments: Outfall X01 and Monitoring Point 01. Area drains via overland and channel flow to East pond, which discharges to a channel system that outlets to the North pond, ultimately exiting via Outfall X01.

DA 2 occupies the eastern portion of the closed landfill cell. No industrial activity takes place in DA 2. The drainage area is grassed over with the exception of an access road. Stormwater drains east and is collected by a stormwater management pond (East). Stormwater is detained in East pond until it is naturally absorbed or it is discharged from the pond into a ditch that takes stormwater to the North pond where it is eventually discharged via Outfall X01.

3.2.3 Drainage Area 3

Primary Activities: Active landfill cell
Drainage Area: 21.50 acres
Imperviousness: Low
Number of reported spills (2012-2015): 0
Largest reported spills (2012-2015): No spills
Potential Pollutants: Leachate
Comments: Outfall X02 and Monitoring Point X02

DA 3 is located in the northern portion of the site and consists of a portion of the lined landfill cell as well as undeveloped space. The lined landfill area in DA 3 is stabilized and no industrial activity takes place here. The drainage area is unpaved with the exception of an access road. Stormwater drains via sheet flow and channel flow to the northeast into Stormwater Management Wet Pond 4-B, which ultimately discharges stormwater offsite via Outfall X02. The area is considered a “stabilized site” for the purposes of inspection requirements described in section L.7.1 of the 12-SW permit.

3.2.4 Drainage Area 4

Primary Activities: Active landfill cell
Drainage Area: 61.84 acres
Imperviousness: Low
Number of reported spills (2012-2015): 0
Largest reported spills (2012-2015): No spills

Potential Pollutants: Leachate
Comments: Outfall X03 and Monitoring Point X03

DA 4 is located near the northeastern boundary of the site. The drainage area is primarily a portion of a lined, active landfill cell and is unpaved, except for an access road and the newly constructed trailer storage area. The southern portion of DA 4 includes maturing and curing areas for wood mulch and compost. The maturing and curing stages of organics processing takes place after nitrogen in the materials has been fixed or stabilized and MDE has concluded that these materials pose little risk to stormwater or groundwater. Therefore, no additional industry-specific monitoring requirements, as identified in Section 6.1.1, are required for DA 4.

3.2.5 Drainage Area 5

Primary Activities: Closed landfill
Drainage Area: 16.69 acres
Imperviousness: Low
Number of reported spills (2012-2015): 0
Largest reported spills (2012-2015): No spills
Potential Pollutants: Leachate
Comments: Outfall X01 and Monitoring Point X01. Area drains via overland and channel flow to South pond, which discharges to a channel system that outlets to the North pond, ultimately exiting via Outfall X01.

DA 5 is located in the southeastern portion of the closed landfill cell. No industrial activity takes place in DA 5. The drainage area is unpaved with the exception of an access road. Stormwater flows southeast and is detained in South pond until it is naturally absorbed or it is discharged from the pond into a ditch that takes stormwater to North pond where it is eventually discharged via Outfall X01.

3.2.6 Drainage Area 6

Primary Activities: Unprocessed wood storage, soil stockpiles, closed landfill, and open space
Drainage Area: 55.32 acres
Imperviousness: Low
Number of reported spills (2012-2015): 1
Largest reported spills (2012-2015): 9 gallons (hydraulic oil)
Potential Pollutants: Leachate
Comments: Outfall X04 and Monitoring Point X04

DA 6 is located in the southern portion of the landfill area of the site. The drainage area is unpaved with the exception of access roads. The northeast portion of DA 6 is used for stockpiling unprocessed wood material before composting/mulch processing and for excess soil storage. The remainder of the drainage area is stabilized open space. Stormwater drains southeast into Stormwater Management Wet Pond CW#1, which discharges stormwater offsite via Outfall X04.

3.2.7 Drainage Area 7

<i>Primary Activities:</i>	<i>Transfer station, pilot composting facility</i>
<i>Drainage Area:</i>	<i>32.15 acres</i>
<i>Imperviousness:</i>	<i>Medium</i>
<i>Number of reported spills (2012-2015):</i>	<i>1</i>
<i>Largest reported spills (2012-2015):</i>	<i>1 gallon (hydraulic oil)</i>
<i>Potential Pollutants:</i>	<i>Runoff from composting operations and transfer station</i>
<i>Comments:</i>	<i>Outfall X05 and Monitoring Point X05</i>

DA 7 is centrally located at the site, to the west of the maintenance shop. The primary features of the drainage area are a transfer station used for the separation of wastes and the pilot compost project. The runoff collection system at the transfer station directs all discharges from inside the station to an oil/water separator (OWS). The pilot composting facility collects household food scraps and yard trimmings for processing into compost. This operation takes place on an asphalt pad. All contact stormwater runoff is collected by a trench drain and reused on the piles or pumped into the leachate tank. The compost material is brought to the facility in bundles, paper, or plastic bags that are subsequently shredded into small pieces during the compost material grinding process. As a result, some plastic bag debris may be blown in the eastward direction from the composting site and eventually deposit in the pond. Stormwater runoff from DA 7 drains south via sheet flow and a storm drain collection system to Stormwater Management Wet Pond CW#2, which discharges offsite via Outfall X05.

3.2.8 Drainage Area 8

<i>Primary Activities:</i>	<i>Vehicle maintenance, fueling station, leachate treatment</i>
<i>Drainage Area:</i>	<i>3.70 acres</i>
<i>Imperviousness:</i>	<i>Medium</i>
<i>Number of reported spills (2012-2015):</i>	<i>3</i>
<i>Largest reported spills (2012-2015):</i>	<i>325 gallons (leachate)</i>
<i>Potential Pollutants:</i>	<i>Leachate and gasoline/diesel fuel from incidental spills during filling</i>
<i>Comments:</i>	<i>Outfall X06 and Monitoring Point X06</i>

DA 8 is centrally located at the site. The drainage area consists primarily of the Alpha Ridge Landfill Maintenance Shop, a fueling station, and the leachate treatment system. The fueling site consists of one 4,000-gallon gasoline aboveground storage tank (AST) and one 10,000-gallon diesel AST. A 2,000-gallon heating oil AST and a mobile generator with a 131-gallon belly tanks are located outside the southeast corner of the maintenance shop. Trench drains within the maintenance shop and at the fuel island for spill collection join water from the wash pad and lead to an OWS. The OWS discharges to the onsite leachate tank and from there to the sanitary sewer system. All vehicle maintenance occurs inside the maintenance building located within the drainage area. Stormwater drains to the southeast and into Shop Stormwater Management Pond, which discharges water offsite through Outfall X06. The rainwater harvesting system, which

supplies vehicle wash water, reduces stormwater runoff to the Shop Stormwater Management Pond.

3.2.9 Drainage Area 9

<i>Primary Activities:</i>	<i>Residents' Convenience Center (RCC), household hazardous waste storage (HHW), and Scrap Metal</i>
<i>Drainage Area:</i>	<i>11.33 acres</i>
<i>Imperviousness:</i>	<i>Medium</i>
<i>Number of reported spills (2012-2015):</i>	<i>2</i>
<i>Largest reported spills (2012-2015):</i>	<i>9 gallons (used oil)</i>
<i>Potential Pollutants:</i>	<i>Runoff from the RCC (including used oil) and HHW storage areas</i>
<i>Comments:</i>	<i>Outfall X07 and Monitoring Point X07. Stormwater drains to Entrance Pond on east side of drainage area</i>

The majority of the RCC is located in DA 9. The HHW storage area for the facility is also located in DA 9. The drainage area is among the most heavily used at the facility and contains a variety of waste storage containers, ASTs, and paved areas. The RCC collects materials including used oil, anti-freeze, kitchen oil, car batteries, shingles, carpet, curbside recyclables, cardboard, Styrofoam, scrap metal, paint, old appliances, and electronics for recycling. Stormwater runoff is directed east into the Stormwater Management Pond, Entrance. The area north of the wall drains through storm drains east and into the riprap-lined channels to the pond. In the unpaved area of the DA, stormwater drains via sheet flow into the pond. A portion of the water drains south from the wall into a trench drain/OWS before discharging into the pond.

3.2.10 Drainage Area 10

<i>Primary Activities:</i>	<i>No active operations</i>
<i>Drainage Area:</i>	<i>22.36 acres</i>
<i>Imperviousness:</i>	<i>Low</i>
<i>Number of reported spills (2012-2015):</i>	<i>0</i>
<i>Largest reported spills (2012-2015):</i>	<i>No spills</i>
<i>Potential Pollutants:</i>	<i>None identified</i>
<i>Comments:</i>	<i>Stormwater drains northeast via sheet flow offsite</i>

DA 10 is the easternmost drainage area at the facility, and consists of undeveloped grassed and wooded land. No active operations are conducted in this drainage area. The Waverly Woods West development borders DA 10 to the north. Stormwater flows offsite via sheet flow in a northeasterly direction.

3.2.11 Drainage Area 11

<i>Primary Activities:</i>	<i>Waste storage area, Scale House</i>
<i>Drainage Area:</i>	<i>18.63 acres</i>
<i>Imperviousness:</i>	<i>Low</i>
<i>Number of reported spills (2012-2015):</i>	<i>1</i>

Largest reported spills (2012-2015): 8 gallons (hydraulic oil)
Potential Pollutants: *Runoff from the RCC*
Comments: *Stormwater drains south via sheet flow offsite*

DA 11 includes the southern portion of the RCC, the scale house, and the wooded area south of the RCC. Stormwater flows offsite via sheet flow in a southerly direction.

3.2.12 Drainage Area 12

Primary Activities: *Salt storage, scrap tire, and compressed gas cylinder storage*
Drainage Area: *72.26 acres*
Imperviousness: *Low*
Number of reported spills (2012-2015): *0*
Largest reported spills (2012-2015): *No spills*
Potential Pollutants: *Runoff from the salt barn (magnesium sulfate salt brine)*
Comments: *Stormwater drains offsite via sheet flow*

DA 12 is located in the southern portion of the facility and includes the salt barn and storage area for scrap tires and compressed gas cylinders. The drainage area is mostly unpaved and wooded with the exception of a few small access roads and the paved area where the salt barn and storage areas are located. Next to the salt barn is a 2,000-gallon AST containing magnesium sulfate salt brine. Stormwater drains to the east and is infiltrated into the ground. Stormwater that does not infiltrate flows overland into an unnamed tributary to the Little Patuxent River. Stormwater from DA 7 and DA 8, and stormwater from off-site (north of DA 8) also flow through DA 12. The offsite water includes contributions from the Waverly Woods West development, a county water tower located outside of ARL's property, and the future section of the trailer storage area. On the eastern side of DA 12, stormwater flows south into a stormwater management pond commonly referred to as the Gas-Line pond.

3.2.13 Drainage Area 13

Primary Activities: *Houses the radio tower*
Drainage Area: *5.85 acres*
Imperviousness: *Low*
Number of reported spills (2012-2015): *0*
Largest reported spills (2012-2015): *No spills*
Potential Pollutants: *None identified*
Comments: *Stormwater drains west via sheet flow offsite*

DA 13 is located along the western boundary of the landfill area of the site. The drainage area is primarily unpaved, except for an access road, and a small concrete patch on which the radio tower is located. A portion of the water tower is located on the northern section of the drainage area. Stormwater drains to the west via sheet flow and is conveyed to a drainage ditch located offsite.

3.2.14 Drainage Area 14

<i>Primary Activities:</i>	<i>No operations</i>
<i>Drainage Area:</i>	<i>5.59 acres</i>
<i>Imperviousness:</i>	<i>Low</i>
<i>Number of reported spills (2012-2015):</i>	<i>0</i>
<i>Largest reported spills (2012-2015):</i>	<i>No spills</i>
<i>Potential Pollutants:</i>	<i>None identified</i>
<i>Comments:</i>	<i>Stormwater drains west via sheet flow offsite</i>

DA 14 is located along the western boundary of the landfill area of the site. The drainage area was forested in 2014 and is primarily unpaved, with the exception of a small concrete patch on the southern portion of the drainage area that is associated with the water tower. Stormwater drains to the west via sheet flow and is conveyed to a drainage ditch located offsite.

3.2.15 Drainage Area 15

<i>Primary Activities:</i>	<i>No operations</i>
<i>Drainage Area:</i>	<i>2.13 acres</i>
<i>Imperviousness:</i>	<i>Low</i>
<i>Number of reported spills (2012-2015):</i>	<i>0</i>
<i>Largest reported spills (2012-2015):</i>	<i>No spills</i>
<i>Potential Pollutants:</i>	<i>None identified</i>
<i>Comments:</i>	<i>Stormwater drains northwest via sheet flow offsite</i>

DA 15 is located at the northwestern portion of the site. The area is undeveloped and has no operations. Stormwater flows in a northwesterly direction and is either absorbed or discharged to an offsite drainage ditch.

3.2.16 Drainage Area 16

<i>Primary Activities:</i>	<i>No operations</i>
<i>Drainage Area:</i>	<i>7.48 acres</i>
<i>Imperviousness:</i>	<i>Low</i>
<i>Number of reported spills (2012-2015):</i>	<i>0</i>
<i>Largest reported spills (2012-2015):</i>	<i>No spills</i>
<i>Potential Pollutants:</i>	<i>None identified</i>
<i>Comments:</i>	<i>Stormwater drains north via sheet flow offsite</i>

DA 16 is located at the northwestern portion of the site. The area is undeveloped and has no operations. Stormwater flows in a northerly direction and leads to a wetland area which is the headwaters of the Little Patuxent River.

3.2.17 Drainage Area 17

<i>Primary Activities:</i>	<i>No operations</i>
<i>Drainage Area:</i>	<i>3.51 acres</i>

Imperviousness: Low
Number of reported spills (2012-2015): 0
Largest reported spills (2012-2015): No spills
Potential Pollutants: None identified
Comments: Stormwater drains north via sheet flow offsite

DA 17 is located at the northern portion of the site. The area is primarily undeveloped, with the exception of an access road and a small building associated with the groundwater system. Outfall X01 is located in Drainage Area 17. Stormwater flows north and is discharged either out of Outfall X01 or is collected as runoff and discharged to the Little Patuxent River.

3.2.18 Drainage Area 18

Primary Activities: Non-landfill space, trailer storage, landfill gas to energy (LFGE) facility
Drainage Area: 4.43 acres
Imperviousness: Medium
Number of reported spills (2012-2015): 2
Largest reported spills (2012-2015): 404 gallons (leachate)
Potential Pollutants: Leachate
Comments: Overland flow off site to Little Patuxent River

DA 18 is located along the eastern boundary of the site on the outside of the perimeter road. The upper southern area is asphalt paved road and parking, and the northern section is unmaintained field/woods. The completed portion of the trailer storage area occupies DA 18 and the future section will drain into and through DA 12. Trailers that have accepted trash from the site are temporarily staged on pavement with the backs of the trailers parked over a concrete dike. All discharge from these trailers is contained within the dike system and is collected by a trench drain where it is conveyed to the leachate tank. Drainage from the paved area drains through an infiltration basin and excess discharges through a storm drain for flow off site through the woods to the Little Patuxent River. The drainage area also hosts the LFGE facility and the East Leachate Pumping Station. An overflow tank is affiliated with this pumping station. Stormwater from those activities also drains offsite northeastward through the woods.

3.3 SPILLS AND LEAKS

Discharges of oil and other hazardous materials can potentially occur due to equipment malfunction or tank loading and unloading operations. In the event of a release, potential discharge directions, rates, and volumes for aboveground storage containers and oil-filled operational equipment are described in this section.

ARL maintains a Spill Log to document all minor and major spill events. The facility has a Spill Prevention, Control, and Countermeasure (SPCC) Plan in accordance with 40 Code of Federal Regulations (CFR) 112, Oil Pollution Prevention. Please reference the facility SPCC Plan for further information regarding oil storage and management and spill prevention and response.

3.3.1 Residents' Convenience Center

The waste oil area in the RCC, within DA 9, is largely paved with asphalt. The two used oil tanks and one used antifreeze tank (each 1,000 gallons) are located under cover and within a secondary containment concrete dike. The concrete dike has sufficient capacity to contain the failure of an AST. The waste kitchen oil tank (480 gallons) is located under cover and is stored on a spill pallet. The pallet has sufficient capacity to contain the entire contents of the tank.

The HHW collection center is also located here. Collected material is collected in appropriate containers beneath the roofed structure. The roof also extends over a dumpster used to collect empty cans and containers used for hazardous and liquid waste.

The generator located at the scale house at the south end of the RCC in DA 9 contains a double-walled 139-gallon diesel fuel tank.

Small motors and engines and white goods are often disposed of in the scrap metal area, located in the southeast corner of the RCC. While landfill rules require removal of oils and fuels, occasionally residents do not comply and oil stains are found on the pavement in the scrap metal area. These stains are not required to be reported as spills through the SPCC or SWPPP reporting program. There is also a de minimis risk in this area of oil leaking from refrigerator compressors located in refrigerators that are waiting for refrigerant removal. The County has installed a berm and directs all runoff from the area to an OWS. Absorbent pads remove oil separated in the OWS. Discharge from the OWS flows overland to the Entrance pond.

3.3.2 Maintenance Shop

The maintenance shop within DA 8 consists of a level, poured concrete floor with floor drains. The floor drains lead to an OWS and then to the leachate tanks and the sanitary sewer. Drums at the maintenance shop are staged on containment pallets. Any spills or leaks from the drums that are not contained by the pallets will likely pool within the immediate spill or leak area and will not be released to the exterior of the building. Additionally, since the maintenance shop is usually staffed during the facility's operational hours, any spill occurrence would be detected soon after it had occurred and the appropriate spill response would be promptly implemented.

The used oil tank (300 gallons), a generator diesel tank (131 gallons), and a heating oil tank (2,000 gallons) are located south of the maintenance shop and are double-walled and made of steel. The gasohol tank (4,000 gallons) and diesel tank (10,000 gallons) are located at the fuel island east of the maintenance shop and are double-walled steel tanks. The generator diesel tank (275 gallons) by the leachate tank, also within DA 8, is also double-walled, which is sufficient for secondary containment. Any spills from these tanks will be contained within the secondary containment of the double-walled tanks.

The mobile fueling truck (105 gallons) is parked overnight within secondary containment at the maintenance shop or transfer station. During operational hours, the truck may be needed at various locations around the landfill; drainage patterns will vary based on location so personnel must be aware of their surroundings. Please reference the ARL SPCC Plan for further information regarding fueling and spill prevention and response.

The two sewage pumping stations (one near CW#2 and one south of the Maintenance Shop) have alarm systems identifying high levels. The pumping station near CW#2 has a teledialer associated with its alarm program, but this pumping station will be decommissioned during Fall 2015.

Any spills or leaks at the fuel island would be captured in the trench drain which surrounds the island, and then directed into an OWS and to the sanitary sewer.

3.3.3 Transfer Station

The diesel fueling tank (500 gallons) at the transfer station within DA 7 is double-walled. Any spills from this tank will be contained within the secondary containment of the double-walled tank.

During winter, when salt is used on the roads, there is potential for salt water to flow east from the transfer station pad and contaminate stormwater. This stormwater would then flow south into CW#2.

3.3.4 Landfill Gas to Energy Facility

Both the transformer and the landfill gas-powered engine generator at the LFGE facility are located on a level, poured concrete floor. The transformer is stored on a curbed pad which provides secondary containment. The engine and storage tank are located within a fully enclosed engine container. Any potential discharge will remain within the immediate area and will be cleaned up promptly. The compressor associated with the LFGE system directly drains to the East Wet Well Leachate Pumping Station.

3.3.5 North Leachate Pumping Station

The north leachate pumping station is located between the Unlined Cell and the North Pond. Leachate collected through the leachate collection system is directed to the pumping station and pumped from the north station to the east leachate pumping station. A 20,000-gallon storage tank is available for overflow storage in case there are problems at the station.

3.3.6 East Wet Well Leachate Pumping Station

Leachate collected from Cell 1 (lined landfill cell) and the Trailer Storage Area is collected by gravity at the East Wet well. In addition, leachate from the North Pumping Station is pumped here. The leachate is pumped to the Leachate Storage Tank located near the Maintenance Shop. An emergency generator with a 165-gallon diesel tank, which powers the pumping station, is located adjacent to the leachate storage tank. In addition, a 20,000-gallon storage tank is available for overflow storage.

3.4 NON-STORMWATER DISCHARGES

Non-Stormwater Discharges, as defined in the Section 9.0, are different from spills and leaks, but are purposeful discharges that do not originate from storm events. They can include, but are not limited to, discharges of process water, air conditioner condensate, noncontact cooling water, pavement wash water, external building washdown, irrigation water, or uncontaminated ground water or spring water.

Non-stormwater discharges are a potential pollutant source and must be evaluated as required by the 12-SW. In general, non-stormwater discharges are prohibited; however, the 12-SW allows exceptions for the following activities:

- Water used to fight active fires (excludes fire system cleaning or testing);
- Pavement wash water which contains no detergents and/or spills/leaks of toxic or hazardous material;
- Landscape watering (only if pesticides, herbicides, and/or fertilizers have been applied in accordance with labeling);
- Routine external building wash down that does not contain detergents or dislodged paint chips;
- Uncontaminated condensate from air conditioners, coolers, compressors, and/or outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Uncontaminated ground or spring water;
- Foundation or footing drains where flows are not contaminated with process materials; and
- Incidental windblown mist from cooling towers (excludes intentional discharges).

An evaluation of the facility for prohibited, non-stormwater discharges has been performed as part of this SWPPP development. The completed Non-Stormwater Discharge Evaluation form, which includes outfall identification, observed non-stormwater discharges and corresponding outfalls, and corrective actions, is included in Appendix E.

3.5 SALT STORAGE

Howard County's Department of Public Works, Bureau of Highways maintains County roads in the winter season. There is a salt storage shed contained within DA 12. See Section 4.15 for additional information as it relates to Salt Storage.

4.0 STORMWATER CONTROL MEASURES

Howard County has coverage under a Municipal Separate Storm Sewer System (MS4) NPDES Permit (Number MD0068322, 00-DP-3318). The Facility is owned by Howard County, and is permitted as an MS4; therefore, this Facility is not specifically required to meet the Chesapeake Bay Restoration Requirements as outlined in the 12-SW.

The facility is classified into the following industry sectors categorized by the SIC codes covered by the 12-SW Permit:

- Sector A: Timber Products,
- Sector C: Subsector C1: Agricultural Chemicals,
- Sector L: Landfills and Land Application Sites,
- Sector N Subsector N2: Source-separated Recycling Facilities, and
- Sector AD.a: Department of Public Works and Highway Maintenance Facilities.

Sector AD.a requires that the SWPPP include the requirements listed in Sector P – Land Transportation and Warehousing, which are incorporated into this plan. The following list of requirements captures both the general and sector-specific-stormwater control measures at the Facility:

- Minimize Exposure
- Good Housekeeping
- Maintenance
- Vehicle and Equipment Storage¹
- Vehicle and Equipment Cleaning¹
- Vehicle and Equipment Maintenance Areas¹
- Fueling Areas¹
- Material Storage Areas¹
- Spill Prevention and Response
- Erosion and Sediment Control
- Management of Runoff
- Salt Storage Piles
- Non-Effluent Limits
- Employee Training
- Non-Stormwater Discharges
- Waste, Garbage, and Floatable Debris
- Dust Generation and Vehicle Tracking
- Inbound Recyclable Material Control²
- Outdoor Storage²
- Indoor Storage and Material Processing².

¹These requirements are specifically identified in Sector AD.a: Department of Public Works and Highway Maintenance Facilities.

²These requirements are specifically identified in Sector N: Recycling Facilities (Source-Separated Materials).

³No specific requirements are identified for Sector A: Timber Products, Sector C: Agricultural Chemicals, or Sector L: Landfills.

4.1 MINIMIZE EXPOSURE

The following exposure minimization practices are used at ARL:

- Containment dikes
- Curbing
- Drip pans
- Collection basins
- Sumps
- Covering
- Vehicle positioning
- Loading/unloading by air pressure/vacuum
- Trench drains
- Oil water separators.

4.2 GOOD HOUSEKEEPING

Good housekeeping practices require the maintenance of a clean, orderly facility. It is often the least expensive and most effective way to prevent stormwater pollution. Howard County facilities are visually observed each operating day by the superintendent and employees, and any housekeeping issues are addressed in an expedient manner.

Good housekeeping practices include regularly removing debris and collected trash out of the back of pick-up trucks and placing those materials in proper receptacles.

The landfill superintendent performs a visual inspection on a monthly basis in compliance with the SPCC Plan. This inspection includes inspection of ASTs, collection containers, and hazardous and universal waste accumulation areas. This inspection is documented and maintained by both the superintendent and BES.

BES contacts the landfill superintendent every 80 days to prompt him of the need for a hazardous waste pick-up by Howard County's licensed contractor (Clean Harbors). BES contacts Clean Harbors and coordinates the logistics for the hazardous waste collection at each facility.

Additionally, the material storage area is kept under cover, litter is picked up at least once every week, and the stormwater ponds are inspected once every three years.

4.3 MAINTENANCE

The Howard County Stormwater Management Division (SMD) conducts preventative maintenance inspections of stormwater structures on a triennial basis. Repairs are coordinated between SMD and the Landfill Superintendent. Howard County's Stormwater Management Facility Inspection and Maintenance Procedure is located in Appendix G.

Maintenance of industrial equipment at Howard County facilities is managed by the Bureau of Facilities, the Division of Central Fleet (Central Fleet), and BES.

The Bureau of Facilities is responsible for equipment that contributes to the functionality of the buildings at ARL, such as septic systems, emergency generators, boilers, and ASTs and/or USTs which contain heating oil. The Bureau of Facilities manages their preventative maintenance through an automated work order system which schedules, tracks, and assigns responsible person(s) and deadlines for a task and the date completed. Bureau of Facilities employees regularly check on emergency generators and heating oil tanks to ensure they are in good condition and operating correctly.

BES is responsible for the OWSs onsite and inspects them twice per year. The County's environmental hazard abatement contractor (currently NorthStar or Apex) or the storm drain contractor (Stormwater Maintenance) pumps out and cleans the OWSs and trench drains on an as-needed basis.

Preventative maintenance of vehicles and equipment at Howard County is the responsibility of both the Operator and Central Fleet. Drivers of vehicles are required to perform an undocumented daily "walk around" of the vehicle before and after use. Operators of equipment are required to perform a documented inspection of the equipment on a daily basis. These inspections are documented on a Driver Vehicle Inspection Report. Any problems found are to be documented on a Maintenance Request form and submitted to that County vehicle's assigned repair facility.

Central Fleet is responsible for scheduling and performing preventive maintenance for all County vehicles. Central Fleet has preventative maintenance stickers on the inside upper left hand corner of the windshield stating when the next required preventative maintenance service is required. It is the responsibility of the driver to ensure that the maintenance is performed at the required intervals. When a vehicle is due for preventive maintenance, Central Fleet will also notify the using department at least one week prior to the scheduled service date.

When a vehicle is overdue for inspection by more than 30 days, the using agency will be charged the full maintenance charge regardless of the vehicle classification. When a vehicle is overdue for inspection by more than 30 days, the fuel card will be suspended until the inspection has been completed. The following outlines the Preventative Maintenance Schedule by class of vehicle:

- **Automobiles, vans, utility vehicles, and light trucks**
 - Level AEvery 5,000 miles
 - Level BEvery 36,000 miles

- **Heavy Trucks***
 - Level AEvery 5,000 miles
 - Level B (DOT)Annually or every 25,000 miles

- **Dump Trucks***
 - Level AEvery 5,000 miles or annually

- Level B (DOT)Annually or every 25,000 miles
- **Heavy Equipment***
 - Level AEvery 250 service hours or 6 months
 - Level B (DOT)Annually or every 25,000 miles
- **Trailers**
 - Level A6 months
 - Level B (DOT)Annually

For equipment that is not listed above, preventive maintenance is performed at least annually to ensure the safe condition and operability of the equipment.

Preventive maintenance for heavy trucks and equipment is completed according to the manufacturer’s specifications at a minimum. The State of Maryland (Annotated Code of Maryland, Transportation Article. Title 23 Vehicle Laws – Inspection of Used Vehicles and Warnings for Defective Equipment, Subtitle 3. Preventive Maintenance Program) requires all trucks with a gross vehicle weight greater than 10,000 pounds to carry the appropriate required document, as follows:

- A record of the most recent inspection (at least every 25,000 miles or at least every 12 months, whichever occurs first), including any maintenance or repair work performed.
- A written certification that the vehicle is maintained under a preventive maintenance plan approved by the Administration and the Automotive Safety Enforcement Division of the Maryland State Police Division.

Central Fleet is responsible for responding to all requests for unscheduled maintenance in both emergency and non-emergency situations. A copy of the Office of Central Fleet’s Vehicle and Equipment Maintenance Policy is included in Appendix H.

4.4 VEHICLE AND EQUIPMENT STORAGE

At the close of business, vehicles and equipment are parked in the following covered locations: maintenance shop building, pole barns, and the transfer station. All covered equipment storage has (or is scheduled to have by January 2016) trench drains to collect runoff from vehicle discharges. These trench drains collect and direct liquids to an OWS.

Equipment is parked in the following uncovered locations with trench drains: scrap metal area, compost facility, and trailer storage area. Runoff from these areas is processed as leachate or treated to remove oil in an OWS before being released.

Occasionally equipment is stored on the active landfill cell, where any leakage would enter the leachate collection system.

Vehicles and equipment are parked in the following uncovered locations with no runoff collection or treatment: maintenance shop parking lot, scale house parking lot, wood waste area, and organics screening area. Standard Operating Procedures (SOP) require employees to perform a visual inspection of all equipment before use. This inspection includes observation for indications of leakage.

The Howard County Spill Response and Notification SOP, which outlines procedures for stopping, containing, and cleaning up spills, as well as notification requirements, is included in Appendix I. Agencies and contact information are also included in the table at the front of this document.

4.5 VEHICLE AND EQUIPMENT CLEANING

All vehicles and equipment are washed in the vehicle wash area, which is located south of the Maintenance Shop. The wash area is sloped to an inlet designed to collect all of the wash water, which is then directed to an OWS, which removes oil and grit before discharging water to the sanitary sewer system. This results in a low potential for wash water polluting the surrounding environment. The new construction plans include trench drains to collect any discharge that may be contaminated by the vehicle or equipment cleaning.

Alternatively, vehicles may be washed in the transfer station. All water in the transfer station is collected, processed through an oil/grit separator, and eventually treated at the local sewage treatment plant.

4.6 VEHICLE AND EQUIPMENT MAINTENANCE AREAS

All regular maintenance to vehicles and equipment is performed inside the Maintenance Building. These activities have a low potential for generating stormwater pollution.

On occasion equipment may require maintenance on the landfill face or other field locations. If such maintenance is required, all necessary precautions will be taken to ensure that the potential impact to stormwater is limited to the maximum extent practicable by use of sound maintenance practices and spill prevention devices.

4.7 FUELING AREAS

The Howard County Spill Response and Notification SOP, which outlines procedures for stopping, containing, and cleaning up spills as well as notification requirements, is included in Appendix I. Agencies and contact information are also included in the table at the front of this document.

All vehicle equipment fueling is performed under two conditions:

- 1) Rubber tire vehicles drive to the fueling station;
- 2) Self-propelled track equipment and towed or trailer equipment are fueled at the location of use.

The grinder is fueled at the wood waste area or in the compost facility. Occasionally, the fuel truck is brought to the transfer station to fuel the excavator located within the transfer station. Track equipment is fueled at the location to minimize wear and tear on both equipment and roads. The fueling station is not covered but a spill kit is present. The fueling station will be replaced in 2015 and a canopy will be constructed over the new station.

The potential risk of pollution generation during fueling activities is low as long as staff members and delivery contractors perform transfers with care and attention. In order to reduce the risk of a spill and ensure proper response, Howard County will rely on the state fuel delivery contract language administrated through the Department of General Services (DGS) for the fueling contractor, Mansfield, which references specific Maryland regulatory requirements including COMAR 26.10.01.17. In addition, the contract language defines the responsibility of the contractor for spills or releases during fuel delivery and requires that the contractor provides copies of written fuel delivery procedures. In addition, Howard County will require Mansfield to provide spill prevention and response training records of all fuel delivery drivers on at least an annual basis. See the ARL SPCC plan for additional details related to fueling by subcontractors.

4.8 MATERIAL STORAGE AREAS

Raw materials are stored in small quantities onsite. The most prevalent material stored outdoors is soil, also known as “fill.” This material is placed over waste materials as they are deposited in the landfill. Howard County keeps stockpiles onsite of finished compost mulch and blended topsoil. Immature organic materials such as aging mulch and curing compost are stored on site. MDE places those materials in the same classification as stockpiled finished materials at a landscape business. Because stockpiled organic materials such as compost and mulch can absorb several times their weight in water, these piles pose little risk to runoff of stormwater.

Outdoor storage vessels include a 2,000-gallon magnesium sulfate salt brine tank, which is located adjacent to the salt barn; a 300-gallon used oil AST, located behind the maintenance shop; an old and unused paint can crusher; and a set of two unused ASTs for water storage, both located behind the maintenance shop. These vessels are, at a minimum, inspected as part of the quarterly inspections.

4.9 HANDLING OF COMPOSTABLE/RECYCLABLE MATERIALS

In the center of the property, household food scraps, wood waste, and yard waste are collected and processed into mulch and compost. These operations take place on compacted soil, gravel, or asphalt. The working surfaces are maintained and monitored regularly to minimize ponding of precipitation and provide appropriate drainage while avoiding conditions that encourage erosion. Most areas include a mulch blanket or compost blanket proven to reduce erosion and reduce dust generation. While in most cases precipitation is absorbed by piles of the raw, processing, or finished materials, stormwater runoff is possible from these areas. At the compost facility, any such runoff is collected by a trench drain and reused on the piles or pumped directly to the leachate tank.

Stormwater runoff from the compost facility is segregated into “contact water” and “stormwater”. Contact water is water that has contacted composting materials or is derived from

the composting process. Contact water is treated as leachate and is reused or disposed through the leachate system. Stormwater at the facility is either diverted or is processed through an infiltration trench. The infiltration trench at the Pilot Compost facility also includes an isolation valve immediately before discharge from the stormwater structure into CW#2. If a spill were to happen at the Pilot Compost facility, closing the valve would eliminate surface water contamination.

Recyclable materials that are stockpiled onsite prior to collection for offsite recycling include tires, compressed gas cylinders (empty), construction and demolition debris, and scrap metal. Aside from scrap metal and the collection of stormwater run-off from that area (described in Section 3.3.1), stormwater runoff from the temporary piles of construction debris, tires, and compressed gas cylinders has little risk of leaching any contaminants into the stormwater.

In June 2014 the County completed an expansion of the roof over the HHW storage building. This expansion eliminates stormwater exposure to latex paint cans stored before reprocessing, and significantly limits the exposure of the waste dumpster/can used at the HHW area from precipitation.

4.10 EXPOSED WASTE

While waste delivered to the landfill face is to be covered with daily cover at the conclusion of each work day, it is sometimes not feasible to bury all waste daily. Waste in transport trailers is placed in covered walking floor trailers, an increasing percentage of which are equipped with leak resistant floors. These trailers are parked in areas where any discharges can be collected and properly disposed.

Partially filled waste cans (roll-offs) represent a potential source of stormwater contamination. The landfill bans the disposition of liquid wastes and strategically empties cans and limits can use during the week to minimize the exposure of waste to precipitation. Furthermore the OWS in the metals area collects runoff from the eastern-most refuse cans.

Employees regularly pick up waste materials during their work-day and empty their trucks of waste at the end of the day as part of housekeeping procedures.

Yard trim and food scraps delivered to the Pilot Composting Area are processed on a regular basis and placed in covered windrows to minimize exposure to the elements. Leachate trench drains or other collection devices are used to capture contact water and direct it for proper re-use or treatment.

4.11 HAZCOM

Howard County maintains a Hazard Communication (HAZCOM) Plan applicable to all of its facilities. The HAZCOM program is currently transitioning to the Globally Harmonized System, and this transition will be completed by 1 June 2015. It is Howard County's policy that all chemicals must be properly labeled throughout their use.

Each Facility has designated a qualified individual who is responsible for ensuring all labels are properly affixed when delivered to the site, and throughout the chemical use. Each primary container of hazardous chemicals will be clearly and legibly labeled with the product identifier, signal word, hazard statement(s), pictogram(s), precautionary statement(s), and supplier identification. Each secondary container of hazardous chemicals must be labeled at a minimum with the trade name(s) of the chemical(s). Portable containers filled with a hazardous chemical are not required to be labeled if both the following conditions apply:

- The employee filling the portable container also is the one who will use the chemical, and
- The employee will use the entire chemical immediately after transferring it to the container.

Safety information and other warnings shall be provided in clear and easily understandable formats including the use of Safety Data Sheets, which are present in accessible areas onsite. More detailed information may be found in the Howard County Hazard Communication Plan, located on Howard County's intranet site.

Any containers designated as containing hazardous waste must be labeled with their specific contents. Hazardous waste containers placed in satellite accumulation areas must be labeled with the words "Hazardous Waste" or with other words that identify the contents of the containers. Any hazardous waste containers located in the main accumulation area must be labeled with words "Hazardous Waste" and the accumulation start date. In addition to these requirements, information must be included which exactly identifies the waste, including name, characteristics, and handling requirements before the waste can be shipped offsite.

Full hazardous waste containers (55-gallon) in satellite accumulation areas must be marked immediately with the accumulation start date and moved to a designated storage or accumulation area within three days. However, at ARL materials are transported to the HHW building daily ensuring storage of hazardous waste in satellite accumulation areas never exceeds one day.

The Howard County Spill Response and Notification SOP, which outlines procedures for stopping, containing, and cleaning up spills as well as notification requirements, is included in Appendix I. Agencies and contact information are also included in the table at the front of this document.

4.12 SPILL PREVENTION AND RESPONSE

A discharge of oil or other contaminants to groundwater, surface water, or soil is prohibited by regulations, and immediate action must be taken to control, contain, and recover discharged product. Please note that spill containment and cleanup are of secondary importance when compared to the health and safety of personnel. The immediate action(s) to be taken will depend on the capabilities of the person discovering the incident, his or her training and understanding of the incident, and the resources available in the area of the incident. In all cases, the initial response actions should only be conducted in a safe manner, *placing the safety and security of persons in the area above all other factors*.

The interior floor of the Maintenance Shop building is sloped to prevent water from entering the building; however, this creates a situation where spills are difficult to contain. The slope is designed to direct flow either north or south from the center of the building. All fluid changes and material storage in the building are performed in the southern half of the Maintenance Shop to direct flow to the southern side, where an OWS is in place in case of a spill occurrence. New construction plans include trench drains on both the northern and the southern sides of the shop to collect any fluid and direct it to the OWS.

Spills and leaks that occur on other areas of the facility, such as in the RCC and transfer station, are reported internally and cleaned up immediately and completely. Additional reporting is performed on an as-needed basis.

The facility has an SPCC Plan in accordance with 40 CFR 112, Oil Pollution Prevention. Please reference Section 5.0, Facility Description and Discharge Prevention, and Section 8.0, Containment and Diversionary Structures within the facility SPCC for additional information.

As discussed previously in Section 4.10, Howard County maintains a HAZCOM Plan applicable to all of its facilities. It is Howard County's policy that all chemicals must be properly labeled throughout their use. The Howard County Hazard Communication Plan may be found on the county's intranet site within the County Policy and Procedures within the Risk Management Section as *Policy and Procedure Number 200.13*. Documentation and Forms including the *PowerPoint Presentation Training* may be found on the County intranet within the Risk Management Library under Hazardous Communication Policy Guidelines.

The Howard County Spill Response and Notification SOP, which outlines procedures for stopping, containing, and cleaning up spills as well as notification requirements, is included in Appendix I. Agencies and contact information are also included in the table at the front of this document.

4.13 EROSION AND SEDIMENT CONTROLS

Erosion concerns can be divided into two broad categories:

- i. Erosion due to active construction projects; and
- ii. Chronic or nuisance eroding areas due to inadequate conveyance, steep slopes, erodible fills, etc.

The first category of erosion potential is associated with various development projects being actively constructed or planned on facility property. The Howard County agency responsible for the construction submits the application for the General Discharge Permit for Construction Activity from MDE for projects that will disturb one or more acres of earth. Projects are also required to get approval plans for disturbances above 5,000 square feet. In accordance with applicable regulations, for each construction project, an erosion and sediment control plan will need to be developed by a professional engineer, incorporated into the project design, and approved by the local and state regulatory agencies. These plans will identify the specific

control measures that will be in place during construction to minimize erosion and sedimentation. The Construction Inspection Division of the Bureau of Engineering inspects all active construction projects on Howard County property to ensure compliance with erosion and sediment control plans.

The second category of erosion and sedimentation problems involves areas that may experience nuisance erosion due to inadequate conveyance, steep slopes, or erodible fills. Howard County will provide temporary stabilization (e.g., temporary seeding, mulching, etc.) for materials stockpiled daily, and intermediate and final covers; inactive areas of the landfill; landfill areas that have final covers but where vegetation is not established; and land application sites where waste application has been completed but final vegetation is not established. Areas of erosion will be identified during the Quarterly Routine Facility Inspection and the annual Comprehensive Site Compliance Evaluation (CSCE).

ARL staff currently monitors for erosion by visual inspection. When erosion is observed, steps are taken to lessen the impact of erosion and sedimentation of the surrounding area. The Howard County SMD inspects the stormwater ponds once every 3 years and forwards corrective action items to the Howard County Pond Crew and the facility Superintendent to address directly with ARL employees.

4.14 MANAGEMENT OF RUNOFF

Devices and facilities to manage stormwater runoff may include catch basins, underground chambers, detention basins, wet ponds, oil/water separators, and oil/grit separators. The various facilities and devices provide different types of stormwater quality and quantity management. For example, a typical stormwater basin may be designed to provide quantity management for attenuating peak discharges and targeting pollutants like sediment and phosphorus from paved areas, whereas an oil/water separator is utilized to remove petroleum from lower flows through the drainage system.

ARL utilizes three OWSs and twelve stormwater management ponds/structures to regulate and filter discharges from the site. The facility maintains an intricate system of drainage swales, catch basins, trench drains and riprap channels to direct stormwater to the appropriate location. Additionally, the facility can utilize the leachate treatment system to filter stormwater if needed.

4.15 SALT STORAGE PILES OR PILES CONTAINING SALT

One salt storage barn is located onsite that stores a large quantity of salt throughout the winter months. The barn has four walls and a roof, reducing the likelihood of stormwater coming into contact with the salt inside the barn. A collection trench fitted with a three-way valve is installed at the bottom of the road leading to the salt barn. During the winter, the valve will direct salt laden run-off from the road to the leachate pumping station. During the summer, when salt contamination of stormwater is not an issue, the valve will direct stormwater runoff into the wooded area south of the storage shed.

4.16 SECTOR-SPECIFIC NON-NUMERIC EFFLUENT LIMITS

The site is classified as industry Sector A: Timber Products, Sector C Subsector C1: Agricultural Chemicals, Sector L: Landfills and Land Application Sites, Sector N Subsector N2: Source-separated Recycling Facilities, and industry Sector AD.a: Department of Public Works and Highway Maintenance Facilities. Sector AD.a also requires that the SWPPP include the requirements listed in Sector P – Land Transportation and Warehousing.

Sector A: Timber Products

This Sector requires additional control measures and/or technology-based effluent limits, outlined in Appendix D of the 12-SW. The control measures are discussed within this Section of the SWPPP, and include Good Housekeeping (Section 4.2), Maintenance (Section 4.3), Vehicle and Equipment Storage (Section 4.4), Material Storage (Section 4.8), and Handling of Compostable Materials (Section 4.9). As no additives are used as part of mulch production in the Wood Waste recycling area, there are no additional specific practices or limits required of activities associated with this Sector of the 12-SW.

Sector C Subsector C1: Agricultural Chemicals

This Sector requires additional control measures and/or technology-based effluent limits, outlined in Appendix D of the 12-SW. These control measures include benchmark monitoring, as described in Section 6.1.1. As Composting is an organic process but was included in Subsector C1: Agricultural Chemicals, Howard County plans to sample and test for the parameters required until it can demonstrate as described in 6.1.1 that stormwater is not at risk from the County's processes.

Sector L: Landfills and Land Application Sites

This Sector requires additional control measures and/or technology-based effluent limits, outlined in Appendix D of the 12-SW. The control measures are discussed within this Section of the SWPPP, and include a Preventive Maintenance Program (Section 4.3), Erosion and Sediment Control (Section 4.13), Exposed Waste controls (Section 4.10), and Unauthorized Discharge Test Certification (Section 4.17).

Sector N: Scrap Recycling and Waste Recycling Facilities

This Sector requires additional control measures and/or technology-based effluent limits, outlined in Appendix D of the 12-SW. The control measures are discussed within this Section of the SWPPP, and include Inbound Recyclable Material Control (Section 4.9), Outdoor Storage (Section 4.2), Indoor Storage and Material Processing (Section 4.2 and 4.9), and Vehicle and Equipment Maintenance (Section 4.6).

Sector AD.a: Department of Public Works and Highway Maintenance Facilities

This Sector requires additional control measures and/or technology-based effluent limits, outlined in Appendix D of the 12-SW. These control measures are discussed within this Section of the SWPPP, and include Vehicle and Equipment Storage (Section 4.4), Vehicle and Equipment Cleaning (Section 4.5), Vehicle and Equipment Maintenance Areas (Section 4.6), Fueling Areas (Section 4.7), Material Storage Areas (Section 4.8), Dust Generation and Vehicle Tracking (Section 4.19), and Employee Training (Section 5.0). No discussion is included in this SWPPP for activities not conducted at this facility such as Locomotive Sanding.

4.17 NON-STORMWATER DISCHARGES

Non-stormwater discharges described in Section 3.4 are a potential pollutant source and must be evaluated as required by the 12-SW. In general, non-stormwater discharges (i.e. purposeful discharges to the stormwater system) are prohibited; however, there are exemptions as discussed previously in Section 3.4 of this Plan. A visual evaluation of the facility for prohibited, non-stormwater discharges was performed. Specifically, the presence of leachate and vehicle wash water was evaluated to meet the requirements under Sector L, Unauthorized Discharge Test Certification. In general, if leachate or washwater are discharged to the stormwater system, then ARL is required to test the affected outfalls for the constituents of the potential pollutant (e.g., ammonia and iron for the presence of leachate). A completed Non-Stormwater Discharge Evaluation form, which includes outfall identification, observed non-stormwater discharges and corresponding outfalls, and corrective actions, is included in Appendix F.

4.18 WASTE, GARBAGE, AND FLOATABLE DEBRIS

Waste, garbage, and floatable debris must not be discharged to receiving waters. Areas exposed to precipitation should be kept free of such materials and ARL places trash cans in all trafficked areas. MDE recommends that personnel walk the site for trash and litter daily/weekly/monthly, etc.

Trash pick-up from the RCC and maintenance shop occurs at least once every week. Pick-up areas include the RCC, the road leading to the transfer station, along the litter fence which runs north-south along the east property line, and areas associated with curbside yard-trim composting. Collected waste is then properly disposed. Fences are in place strategically to prevent debris from being windblown toward any outfalls on the site.

4.19 DUST GENERATION AND VEHICLE TRACKING OF INDUSTRIAL MATERIALS

All often traveled roads are either gravel or asphalt to reduce the presence of dust. However, water tanks are available onsite if they are needed to assist with spraying to reduce dust. Additional details can be found in ARL's Particulate Matter Control Plan.

Trucks exiting the transfer station have the potential to track contaminants out of the transfer station and off site. This risk is reduced by maintaining good housekeeping practices within and around the transfer station, such as picking up litter and other debris outside the Transfer Station and water sprays to prevent dust on the transfer station floor. In addition, waste is cleared from the Transfer Station floor after each working day.

5.0 EMPLOYEE TRAINING

Training is necessary to ensure that ARL personnel are aware of their impact to stormwater, their responsibilities to prevent pollution, and methods to control such pollution release. All training is to be organized and coordinated through the P2 Team and Howard County DPW BES. Howard County DPW BES will conduct the training.

The goals of the training are as follows:

- Educate facility staff at all levels of responsibility on the purpose, requirements, and implementation activities of the SWPPP.
- Promote overall awareness of stormwater pollution prevention to facility staff.
- Integrate the stormwater pollution prevention strategy into existing facility practices.

The topics covered during the training include, but are not limited to:

- Purpose of SWPPP
- NPDES/SWPPP requirements
- SWPPP contents
- Hydrology and water quality basics
- Minimize exposure
- Good housekeeping measures
- Maintenance
 - Used oil and spent solvent management*
 - Fueling procedures*
 - Painting procedures*
 - Used battery management*
- Spill prevention and response procedures
- Erosion and sediment controls
- Management of runoff
- Salt Storage
- Effluent Limits
- Non-stormwater discharges
- Waste, garbage, and floatable debris
- Dust generation and vehicle tracking
- Monitoring
- Inspections.

*These requirements are specifically identified in Sector AD.a; Department of Public Works and Highway Maintenance Facilities.

The P2 Team and BES will alert the staff in advance of the training session to ensure full participation in the event. Training sessions are to be held annually for ARL personnel. Attendance at an annual training event for each calendar year is mandatory for all employees.

Additional training will be held on an as-needed basis for new employees. Each employee must sign an attendance sheet verifying that the employee was present at the training event. The attendance sheet and a brief description of the training topics discussed must then be stored with this SWPPP or in a central file at BES.

Other training sessions will be held as necessary for members of the P2 Team or other ARL personnel to address specific topics of interest. Topics for such training sessions may include basic concepts of P2 and stormwater control measures (for new P2 members), and proper use and maintenance of stormwater control measures. Training on these topics will be scheduled on an as-needed basis by the P2 Team Leader in coordination with the P2 Team.

An outline of sample stormwater pollution prevention training and a sample attendance sheet are included in Appendix J.

6.0 MONITORING

6.1 SCHEDULES AND PROCEDURES FOR MONITORING

6.1.1 Benchmark Monitoring

In addition to the Quarterly Visual Sampling as described in 7.1.4, some areas of Alpha Ridge Landfill require laboratory testing of the stormwater collected. Benchmark Monitoring is required for facilities that fall within Sector L: Landfill and Land Application Sites and Sector C: Chemicals and Allied Products. The landfill operations fall under Subsectors L1 and L2, and composting of food scraps currently falls under Subsector C1 – Agricultural Chemicals. As such, the facility must perform the following benchmark monitoring in the active cell:

Subsector L1 Benchmark Monitoring (also for Transfer Station)

Outfall	Parameter	Benchmark	Frequency	Type
X02	Total Suspended Solids	100 mg/L	1/quarter	Grab
X03	Total Suspended Solids	100 mg/L	1/quarter	Grab
X04	Total Suspended Solids	100 mg/L	1/quarter	Grab

Subsector L2 Benchmark Monitoring

Outfall	Parameter	Benchmark	Frequency	Type
X02	Total Iron	1.0 mg/l	1/quarter	Grab
X03	Total Iron	1.0 mg/l	1/quarter	Grab

Subsector C.C.1 Benchmark Monitoring

Outfall	Parameter	Benchmark	Frequency	Type
X05	Total Iron	1.0 mg/l	1/quarter	Grab
	Nitrate plus Nitrite Nitrogen	0.68 mg/l	1/quarter	Grab
	Total Lead	0.082 mg/l	1/quarter	Grab
	Total Zinc	0.12 mg/l	1/quarter	Grab
	Total Phosphorus	2.0 mg/l	1/quarter	Grab

No additional benchmark monitoring is required by the 12-SW for facilities that fall within Sector A: Timber Products, Sector N Subsector N2: Source-separated Recycling Facility, Sector AD.a: Department of Public Works and Highway Maintenance Facilities, or Sector P: Land Transportation and Warehousing.

The monitoring quarters are as follows: 1 January through 31 March; 1 April through 30 June; 1 July through 30 September; and 1 October through 31 December. BES is responsible for the quarterly benchmark monitoring and has subcontracted this effort. Samples will be collected and analyzed in accordance with 40 CFR 136 analytical methods and will utilize testing procedures with quantitation limits below benchmark values. The following information will be recorded for each sample:

- Exact place, date and time of sampling;

- Person(s) who performed the sampling;
- Dates and times the analyses were performed;
- Person(s) who performed the analyses;
- Analytical techniques or methods used; and
- Results.

Howard County will conduct monitoring of this facility for eight full quarters beginning the first full monitoring period 6 months after registering under the 12 SW. If after eight quarters, the averaged results do not exceed the benchmark monitoring values identified above, no further sampling for that parameter will occur during the remainder of the permit term. Howard County BES will submit a written notification to the MDE Compliance Program that it has fulfilled its benchmark monitoring requirement and will update its SWPPP relative to benchmark monitoring.

However, if the averaged results for any monitoring parameter identified above exceed the benchmark, Howard County will review the design, installation, and implementation of selected control measures and identify any modifications are needed. After modifications have been completed, continued quarterly monitoring will be completed until the average of four consecutive quarterly monitoring results do not exceed the benchmark.

If Howard County concludes that no further pollutant reductions are available and economically practicable and achievable according to industry standards to meet the limits, monitoring will continue annually. Additionally, Howard County will document this conclusion and retain supporting information with the facility SWPPP. Howard County BES will submit a written notification of determination to the MDE Compliance Program with the next benchmark discharge monitoring report (DMR).

In some cases, it may be determined that benchmark pollutants are naturally occurring in soils or groundwater. Following the first four quarters of benchmark monitoring, or sooner, if the average results exceed a benchmark value and Howard County makes the determination that the exceedance is due solely to the presence of that pollutant in the natural background, no further benchmark monitoring or corrective actions are required if the following are met:

- The average concentration of the results is less than or equal to the concentration in the natural background;
- Documentation is maintained with the SWPPP which includes a determination that this exceedance is due to the pollutant's presence in the natural background, supporting data collected by Howard County or other entities including subject matter literature that describe the background levels in the facility stormwater discharge; and
- Notification is made by Howard County BES that documents this rationale and is submitted with the final quarterly benchmark monitoring report.

Howard County BES will submit Benchmark DMRs electronically to MDE through NetDMR. Reporting will be submitted no later than 28 days following the monitoring period. All benchmark monitoring related documentation will be maintained for 5 years.

6.1.2 Impaired Waters Monitoring

The Facility discharges to the Little Patuxent River, which is classified as “impaired waters.” The river is impaired by cadmium, nutrients – phosphorus, sediment, and impacts to biological communities.

At the time of the submittal of the NOI for the 12-SW, the Facility has not conducted any voluntary monitoring of the impaired waterway. Howard County will await any further direction from MDE in regards to additional monitoring, limits, or controls of this waterway, if necessary, to be consistent with the waste load allocation of the USEPA-approved total maximum daily load (TMDL).

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7.0 INSPECTIONS, CORRECTIVE ACTIONS AND RECORDKEEPING

7.1 INSPECTIONS

7.1.1 Visual Monitoring Summary

ARL was previously covered under an Individual Industrial NPDES permit 07-DP-3224 which did not require visual monitoring. However, ARL has now instituted a Quarterly Visual Monitoring Program as required under the current 12-SW permit.

A visual inspection program of the ASTs and related equipment is in place at ARL. Monthly inspections are performed by ARL staff. Documentation of the inspections is kept onsite in the SPCC Plan for a minimum of 3 years.

Stormwater ponds are visually inspected triennially. The inspection program includes a comprehensive evaluation of the stormwater ponds, surrounding vegetation, inlet(s) and outlet(s), as well as forebays, sediment traps, and adjacent ditches and swales. The inspection is documented in a binder, which is located in the landfill superintendent's office.

The facility is patrolled during routine operations for the monitoring of spills and leaks. These items are to be reported to the supervisor upon discovery. The supervisor will make a determination of the spill or leak and report as required on the Spill Report Form, found in the SPCC Plan.

Upon adoption of this SWPPP, quarterly visual inspections will commence equivalent to what is required by 12-SW permit conditions and as described in Section 7.1.4.

7.1.2 Comprehensive Site Compliance Evaluation (CSCE)

Howard County BES will facilitate CSCE of ARL on an annual frequency. The evaluations will be performed by a qualified person designated by Howard County BES and the landfill superintendent. The CSCE of ARL will replace one of the quarterly routine inspections.

At minimum, the CSCE will include an inspection of the following where materials or activities are exposed to stormwater:

- Areas where industrial materials, garbage, or debris collect or may be stored and where these materials may have or could come into contact with stormwater;
- Locations where leaks or spills from vehicles/equipment, drums, ASTs, transformers, emergency generators, or other containers that have occurred within the past 3 years;
- Storage areas for vehicles/equipment awaiting maintenance¹;
- Fueling areas¹;
- Indoor/outdoor vehicle equipment maintenance areas¹;

- Material storage areas¹;
- Vehicle/equipment cleaning areas¹;
- Unloading/loading areas¹;
- Wood processing areas²;
- Inbound Recyclable Material areas³
- Outdoor Storage of recyclables³
- Indoor Storage and Material Processing of recyclables³
- Areas where vehicles enter or exit the site to prevent off-site tracking of sediment;
- Tracking or blowing of sediment or materials from covered to uncovered areas;
- Evidence of, or the potential for, pollutants entering the drainage system;
- Evidence of pollutants discharging to surface waters at all facility outfalls;
- The condition of and around any outfall, including flow dissipation measures to prevent erosion (scouring);
- Training performed, inspections completed, maintenance performed, quarterly visual examinations, and effective operation of BMPs; and
- Completeness of records.

¹These requirements are specifically identified in Sector AD.a: Department of Public Works and Highway Maintenance Facilities.

²This requirement is specifically identified in Sector A: Timber Products.

³These requirements are specifically identified in Sector N: Recycling Facilities (Source-Separated Materials).

Howard County BES or its designee will write a report summarizing the scope, names of individual(s) conducting the CSCE, date of evaluation, and observations related to the SWPPP implementation (Appendix K). Any corrective actions will be identified as described in the Corrective Action Procedure in Section 7.2. The SWPPP will be modified as necessary based upon the observations noted during the CSCE.

All records of the CSCE including resulting or corrective actions will be maintained for a minimum of 5 years by BES.

7.1.3 Routine Facility Inspections

Routine facility inspections will be conducted at least once per quarter to review the effectiveness of the SWPPP. The landfill superintendent will facilitate the routine inspection of ARL quarterly.

The CSCE (described in Section 7.1.2) of ARL will replace one of the quarterly routine inspections. At minimum, the routine facility inspection will include an inspection of the following where materials or activities are exposed to stormwater:

- Areas where industrial materials, garbage, or debris may collect or be stored and where these materials may have or could come into contact with stormwater;
- Locations where leaks or spills from vehicles/equipment, drums, ASTs, transformers, emergency generators, or other containers that have occurred within the past 3 years;
- Storage areas for vehicles/equipment awaiting maintenance¹;
- Fueling areas¹;
- Indoor/outdoor vehicle equipment maintenance areas¹;
- Material storage areas¹;
- Vehicle/equipment cleaning areas¹;
- Unloading/loading areas¹;
- Wood processing areas²;
- Inbound Recyclable Material areas³
- Outdoor Storage of recyclables³
- Indoor Storage and Material Processing of recyclables³
- Areas where vehicles enter or exit the site to prevent off-site tracking of sediment;
- Tracking or blowing of sediment or materials from covered to uncovered areas;
- Evidence of, or the potential for, pollutants entering the drainage system;
- Evidence of pollutants discharging to surface waters at all facility outfalls;
- The condition of and around any outfall, including flow dissipation measures to prevent erosion (scouring);

- Training performed, inspections completed, maintenance performed, quarterly visual examinations, and effective operation of BMPs; and
- Completeness of records.

¹These requirements are specifically identified in Sector AD.a: Department of Public Works and Highway Maintenance Facilities.

²This requirement is specifically identified in Sector A: Timber Products.

³These requirements are specifically identified in Sector N: Recycling Facilities (Source-Separated Materials).

The landfill superintendent will record the routine facility inspection on the checklist (Appendix K). The checklist will include a certification that the Facility is in compliance with the SWPPP and 12-SW or include a record of deficiencies with follow-up actions.

Howard County BES requests electronic copies of the complete Routine Facility Inspection on a regular basis. BES will review the checklist for completeness and for “triggering events.” BES will be responsible for coordinating and documenting the corrective action process. The SWPPP will be modified as necessary based upon the observations noted during the routine facility inspection.

All records of the routine facility inspection including resulting corrective actions will be maintained for a minimum of 5 years by BES.

7.1.4 Quarterly Visual Inspection

ARL was previously covered under the Individual Industrial Discharge Permit, Discharge Permit Number 07-DP-3224, issued 1 September 2009, which did not require visual inspections. Visual inspections have not been performed to date at the Facility.

Quarterly visual inspections will commence during the first full quarter after the facility has been notified of coverage under the 12-SW. The monitoring quarters are as follows: 1 January through 31 March; 1 April through 30 June; 1 July through 30 September; and 1 October through 31 December. BES is responsible for the quarterly visual inspections and has subcontracted this effort.

The general procedure for visual inspections is as follows:

- At least once each quarter, a designated individual from Howard County’s consultant will collect a stormwater sample from Outfalls X01 through X07.
 - The sample must be collected during an active discharge of stormwater.
 - One is not required to sample during an adverse weather event (i.e., events which are dangerous or create inaccessibility such as flooding, high winds, electrical storms, etc.). A substitute sample must be taken from the next qualifying storm event. Documentation for this must be included in SWPPP records.

- The Facility is not required to sample during conditions which make sampling otherwise impractical, such as drought or extended frozen conditions. A substitute sample must be taken from the next qualifying storm event. Documentation for this must be included in SWPPP records.
- Any deviations from a regular quarterly scheduled inspection must be documented.
- Samples may be taken during any precipitation event where there is a measurable discharge from the outfall. This includes snow melt.
- Samples must be collected within the first 30 minutes of the storm event.
- Samples should be collected within a clear container.
- The Quarterly Visual Monitoring Form (located in Appendix L) is required to be completed for each sample.
- The Quarterly Visual Monitoring Form has entries for visual parameters during the time immediately following sample collection, and visual parameters for 30 minutes following sample collection.

Howard County BES will receive copies of the Quarterly Visual Monitoring form for the Facility from the contractor, once completed. BES will review the form for completeness and for “triggering events.” BES will be responsible for coordinating and documenting the corrective action process.

All records of quarterly visual monitoring forms will be maintained for a minimum of 5 years.

7.1.5 Monthly and Weekly Inspections

Facilities which are subject to Sector L: Landfill and Land Application Sites and Sector N: Scrap Recycling and Waste Recycling Facilities are required to perform additional inspections. Active facilities, except in arid or semi-arid climates, are required to inspect operating landfills and land application sites at least once every 7 days and once every month for stabilized areas. The landfill superintendent will facilitate this inspection.

Weekly inspections will be performed in DAs 4, 6, 7, 9, 11, and 18. These weekly inspections will focus on the following:

- Areas of the landfill which have not yet been stabilized;
- Active land application areas;
- Areas used for material storage and waste exposed to precipitation, stabilization, and structural control measures;

- Leachate collection and treatment systems;
- Areas where equipment or waste trucks enter and leave the site; and
- Ensuring erosion and sediment control measures are properly operating.

Monthly inspections will be performed in DAs 1, 2, 3, 5, 8, 10, and 12 through 17. Monthly inspections will focus on the following:

- Confirming that the areas of the landfill have been stabilized;
- Structural control measures are adequate;
- Leachate collection and treatment systems are performing correctly;
- Ensuring erosion and sediment control measures are properly operating.

Inspections of Waste Recycling Facilities must be performed quarterly. At a minimum, all areas where waste is generated, received, stored, treated, or disposed of and that are exposed to either precipitation or stormwater runoff must be included in the inspection.

7.1.6 Inspection Techniques

Many types of pollution can be observed in waterways and ponds by looking for the correct signs. An oil sheen observed on surface water indicates that an oil spill has reached the waterway. Oil sheens appear to have a rainbow effect on the water or can appear as floating oil globules. A change in color of the water can also indicate a pollutant is present. Make note if the water is milky/cloudy or opaque. Inspectors should also pay attention to odors near the waterway or pond. Table 7-1 below indicates what pollutants can cause certain odors. Other indicators of pollution are brown or dead patches of stream vegetation, a higher than normal number of dead fish or other wildlife, and blooms of algae.

While observation of pollution in and on water can be easily detected, detection of pollution in or on the ground is more challenging. Liquid or fluid pollutants discharged to the ground often soak in and can pollute groundwater or surface water during later storm events. Spills or releases can occasionally begin underground and could be the result of leachate seeps or broken utilities such as force mains or water pipes. Signs of spills or releases include ponded water or soggy ground during dry spells, stressed vegetation, uncharacteristically lush or green vegetation and observation of water or sheens. Leachate seeps have characteristic metallic looking sheens that crack when disturbed. These are different from oil sheens which often reflect rainbows and do not crack or break when disturbed.

Employees identifying pollution or suspected pollution should notify their supervisor immediately. After addressing the spill, the employee and the supervisor should determine

which environmental control program if any must be notified of such release. Some programs required notification within hours and follow through reports to be written within five (5) days).

Table 7-1 General Causes of Odors in Water

Odor	General Causes
Rotten eggs/hydrogen sulfide (septic)	Raw sewage, decomposing organic matter, lack of oxygen
Chlorine	Wastewater treatment plant discharges, swimming pool overflow, industrial discharges
Sharp, pungent odor	Chemicals or pesticides
Musty odor	Presence of raw or partially treated sewage, livestock waste
Gasoline, petroleum	Industrial discharge, illegal dumping of wastes, wastewater
Sweet, fruity	Commercial wash water, wastewater

7.2 CORRECTIVE ACTION PROCEDURE

7.2.1 Internal Corrective Action Procedure

Internal corrective actions refer to non-reportable and reportable corrective actions. Non-reportable corrective actions tend to be proactive in nature. Reportable corrective actions are defined by “triggering events,” which are discussed further in Section 7.2.2. The facility personnel will adhere to the following procedure for managing internal corrective actions resulting from the observations during regular operations, weekly and monthly inspections, quarterly visual inspections, routine facility inspections, and CSCE:

1. General: Maintain proper inspection and follow-up records: The inspection checklists and Quarterly Visual Inspection Form with corrective actions will serve as the records of the inspections. The checklists will include the following information:
 - Date of the inspection
 - Individual(s) conducting the inspection
 - Scope
 - Problems found/Corrective actions identified
 - Response implemented to rectify the problem
2. Corrective Actions: The individual(s) performing the routine facility inspections must use the following procedures to ensure that the appropriate corrective actions are taken:
 - The individual(s) who is responsible for performing the routine inspection must complete all items on the checklist.
 - The inspector must sign the checklist when it is complete.

- Each inspection item on the checklist requiring corrective action must be assigned a responsible party and completion date.
 - The individual(s) addressing the corrective action must complete the appropriate section of the checklist once the action has been implemented.
 - The completed and signed checklist must be maintained with SWPPP records.
3. Management and Documentation of Corrective Actions: BES will be responsible for receiving and reviewing the Facility inspections and documenting and tracking all corrective actions.

7.2.2 Events Triggering MDE Reportable Corrective Actions

Howard County will develop corrective actions if deficiencies are noted during regular operations, quarterly visual inspections, routine facility inspections, and CSCE.

In addition to regular corrective actions, which are proactive in nature and not necessarily a result of a noncompliance event, there are “12-SW MDE Reportable” corrective actions. If any of the following events occur, the P2 Team must review and revise the selection, design, installation, and implementation of the Facility’s control measures to ensure that the condition is eliminated and will not be repeated in the future:

- An unauthorized release or discharge;
- Facility becomes aware, or MDE determines, that the control measures are not stringent enough for the discharge to meet applicable water quality standards;
- An inspection or evaluation of the Facility by an MDE official, determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this permit; or
- Facility observes in the Routine Facility and Quarterly Visual Inspection and CSCE that control measures are not being properly operated and maintained.

7.2.3 Documentation of MDE Reportable Corrective Actions

The documentation of the MDE Reportable Corrective Action must be included with the CSCE documentation. The following timeline for documentation of Corrective Actions is defined within the 12-SW:

- **Within 24 hours of discovery of an event** (defined in Section 7.2.2) the Facility must document the following information: identification of the condition triggering the need for corrective action, description of the problem identified, and the date the problem was identified.

- **Within 14 days of discovery of an event** (defined in Section 7.2.2) the Facility must document the following information: summary of the corrective action taken or to be taken, justification if Facility feels that corrective actions do not need to be taken, notice of whether a SWPPP modification is required as a result of this discovery, the date the corrective action was initiated, and the date the corrected action was (or expected to be) completed.

7.2.4 Reporting of Corrective Actions to MDE

For deficiencies that **cannot be fully addressed within 30 days of discovery**, the Facility must notify Howard County BES immediately. Howard County BES will notify MDE within the 30-day time period.

ARL has multiple permits that cover stormwater, solid waste, air, oil, and compost requirements. The documentation and reporting schedule outlined above only refers to the requirements of the 12-SW permit. However, this timeline does not always align with timelines for other permits to which ARL must adhere. Depending on the source of stormwater pollution, there may be multiple reports due at different times that must be submitted to MDE. Table 7-2 below provides a summary of the reporting requirements and timeframes that are mandated in all of ARL's environmental permits.

Table 7-2 Alpha Ridge Landfill Release Reporting Requirements

Program	Document	Release Reporting	
		Department	Timeframe
Stormwater	Stormwater Pollution Prevention Plan (SWPPP) (General Permit 12-W)	MDE Wastewater Permit Program, (410/537-3323)	Document condition within 24 hours , document corrective action plan with 14 days , notify MDE within 30 days if correction action will take more than 30 days to address
Solid Waste	Refuse Disposal Permit	MDE Solid Waste Program, (410/537-3318)	If leachate or any other waste or discharge leaves the site or has the potential to leave the site, call within one hour .
Air	Title V Permit	MDE Air and Radiation Management Administration, (410/537-3255)	Report all occurrences of excess emissions expected to occur for at least one hour. Notify MDE at the onset and termination of the occurrence. When requested, submit within 5 days a report describing deviations from permit conditions. When requested, submit a written report within 10 days of request concerning an occurrence of excess emissions.
Oil	Spill Prevention Control and Countermeasure (SPCC) Plan	MDE Emergency Response Office, (866/633-4686)	For oil spills, call within two hours , fax report within ten business days
Compost	TBD	TBD	TBD

7.3 RECORDKEEPING

The Facility will maintain a copy of the current SWPPP. The original plan and official records shall be kept at the BES office. The following records will be maintained with the SWPPP for at least 5 years:

- A copy of the NOI and correspondence between the Facility and MDE;
- A copy of the 12-SW Permit (an electronic copy easily available to SWPPP personnel is also acceptable);
- The SPCC Plan;
- Spill log including descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants to waters of the U.S., through stormwater or otherwise; the circumstances leading to the release and actions taken in response to the release; and measures taken to prevent the recurrence of such releases;
- Training records;
- The SMD maintains documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules;
- Routine Facility Inspection, Quarterly Visual Monitoring Forms (including deviations), and Comprehensive Site Compliance Evaluation records; and
- Corrective actions.
- Monthly and weekly inspections will be kept at the facility and periodically consolidated and sent for the retention period to the BES office.

8.0 REFERENCES AND INFORMATION SOURCES

- Maryland Department of the Environment (MDE). 2009. *2000 Maryland Stormwater Design Manual*. Volumes I and II. Revisions. May.
- Maryland Department of the Environment (MDE). 2011. *2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control*. May.
- Maryland Department of the Environment (MDE). 2014. General Permit No. 12-SW for Stormwater Discharges associated with Industrial Facilities.
- U.S. Environmental Protection Agency (USEPA). 1992. *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices*. USEPA 832-R-92-006.
- U.S. Environmental Protection Agency (USEPA). 1992. *Summary Guidance for Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices*. USEPA 833-R-92-002.
- U.S. Environmental Protection Agency (USEPA). 2009. *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*. USEPA 833-B-09-002. February.

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9.0 GLOSSARY

The following glossary was extracted from MDE General Permit No. 12-SW for Stormwater Discharges associated with Industrial Facilities.

Accounting Guidance – ‘Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated’ dated June 2011, or its successor. This document may be found on the Department’s Stormwater Management Program website or with this website link http://bit.ly/MDE_Accounting_Guidance, under Maryland's Stormwater Management Program. Industrial facilities may not consider section 9 of that document “Alternative BMPs for Consideration”, which were alternative BMPs recommended by Maryland's NPDES municipalities for further examination by the Department.

Action Area – all areas to be affected directly or indirectly by the stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities, and not merely the immediate area involved in these discharges and activities.

BAT – Best Available Technology Economically Achievable

Best Management Practices (BMPs) – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2.

BOD5 – Biochemical Oxygen Demand (5-day test)

BPJ – Best Professional Judgment

BPT – Best Practicable Control Technology Currently Available

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

CFR - Code of Federal Regulations

COD – Chemical Oxygen Demand

Co-located Industrial Activities – Any industrial activities, excluding your primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i)-(ix) and (xi). An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the stormwater regulations or identified by the SIC code list in Appendix A of the MDE General Permit No. 12-SW.

COMAR – Code of Maryland Regulations

Control Measure – refers to any BMP or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the State.

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq.)

Department – the Maryland Department of the Environment. Unless stated otherwise, all submissions to the Department shall be directed to the attention of the Wastewater Permits Program.

Design Manual – the updated stormwater management principles, methods and practices found in the “Maryland Stormwater Design Manual, Volumes I & II (Design Manual)”, which serves as the Department’s guide for stormwater management principles, methods, and practices for new development, redevelopment, retrofits and restoration. Modifications were made to the Design Manual in 2009, to include Environmental Site Design (ESD) in addition to the established Best Management Practices (BMPs). The latest edition of the Design Manual is available on the Department’s Stormwater Management Program website or with this website link http://bit.ly/MDE_Design_Manual.

Discharge – when used without qualification, means the "discharge of a pollutant." See 40 CFR 122.2.

Discharge of a pollutant – any addition of any “pollutant” or combination of pollutants to “waters of this State” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of this State from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

Discharge-related activities – activities that cause, contribute to, or result in stormwater and allowable non- stormwater point source discharges, and measures such as the siting, construction and operation of BMPs to control, reduce, or prevent pollution in the discharges.

DMR – Discharge Monitoring Report

Effluent limitation – any restriction or prohibition that:

1. Is established under federal law or a law of this State;
2. Specifies quantities, rates or concentrations of chemical, physical, biological, or other constituents that are discharged into the waters of this State;
3. Includes:
 - a. Parameters for the discharge of toxic and nontoxic substances, and
 - b. Standards of performance for new sources.

Effluent Limitations Guideline (ELG) – defined in 40 CFR § 122.2 as a regulation published by the Administrator under section 304(b) of CWA to adopt or revise effluent limitations.

EPA – U. S. Environmental Protection Agency

EPA Approved or Established Total Maximum Daily Loads (TMDLs) – “EPA Approved TMDLs” are those that are developed by a State and approved by EPA. “EPA Established TMDLs” are those that are developed by EPA.

Existing Discharger – an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.

Facility or Activity – any NPDES “point source” (including land or appurtenances thereto) that is subject to regulation under the NPDES program. See 40 CFR 122.2.

General permit – a State discharge permit issued for a class of dischargers.

Grab sample – an individual sample collected in less than 15 minutes. Grab samples for pH shall be analyzed within 15 minutes of sample collection.

Groundwater – underground water in a zone of saturation.

Hardness Dependent – refers to benchmark values for some metals that are determined as a function of hardness (in units of mg/L) in water. For these parameters, permittees whose discharges exceed the lowest benchmark level of the metal must determine the hardness of the receiving water (see Appendix C of the MDE General Permit No. 12-SW), to identify the benchmark value applicable to their facility.

Hazardous Materials or Hazardous Substances or Hazardous or Toxic Waste – for the purposes of this permit, any liquid, solid, or contained gas that contain properties that are dangerous or potentially harmful to human health or the environment. See also 40 CFR §261.2.

Impaired Water (or “**Water Quality Impaired Water**”) – a body of water identified by the Department or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called “water quality limited segments” under 40 CFR 30.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established. Impaired waters compilations are included in Maryland’s most current List of Impaired Surface Waters as Category 4a, 4b, 4c or 5 waterbodies.

Impervious surface – any surface that does not allow stormwater to infiltrate into the ground, including any area that is paved or used for vehicular storage or traffic, building rooftops, sidewalks, driveways, etc. The surfaces considered impervious for nutrient reduction requirements are further specified in Part III.A of the permit.

Industrial Activity – the 10 categories of industrial activities included in the definition of “stormwater discharges associated with industrial activity” as defined below and in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

Industrial Stormwater – stormwater runoff from industrial activity.

Infeasible – there is a site-specific constraint making it not technologically possible, or not economically practicable and achievable in light of best industry practices, to achieve the required control measures on-site. The burden is on the permittee to demonstrate to the permitting authority that the requirement is infeasible.

Leachate – liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

Measured flow – any method of liquid volume measurement; the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

Minimize – to reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice

MGD – Million Gallons per Day

MSDS – Material Safety Data Sheet

MSGP – EPA’s Multi-Sector General Permit

Municipal Separate Storm Sewer – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. See 40 CFR 122.26(b)(4) and (b)(7).

Municipal Separate Storm Sewer System (MS4) – in Maryland we have several MS4 NPDES Permits. The following are a summary of how they are broken down by size. For a full listing and explanation, visit the Department website for “Maryland’s NPDES Municipal Separate Storm Sewer System (MS4) Permits” or at this link http://bit.ly/MDE_MS4.

Phase I MS4s are for large jurisdictions, which are municipalities with populations of greater than 250,000, and medium jurisdictions, which are municipalities with populations between 100,000 and 250,000. The large Phase I MS4 jurisdictions are Anne Arundel County, Baltimore County, Baltimore City, Montgomery County, and Prince George’s County. The medium Phase I MS4 jurisdictions are Carroll County, Charles County, Frederick County, Harford County, and

Howard County. One statewide MS4 under this category has been issued to the State Highway Administration.

Phase II MS4s include smaller jurisdictions or approximately 60 cities and towns in Maryland with populations greater than 1,000. They also include State and Federal facilities.

NetDMR – a national tool for regulated Clean Water Act permittees to submit discharge monitoring reports (DMRs) electronically via a secure Internet application to U.S. EPA through the Environmental Information Exchange Network. NetDMR allows participants to discontinue mailing in hard copy forms under 40 CFR 122.41 and 403.12.

New Discharger – a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

New Source – any source, the construction of which is commenced after the publication by the EPA of proposed regulations prescribing a standard of performance which will be applicable to the source if the standard is promulgated.

New Source Performance Standards (NSPS) – technology-based standards for facilities that qualify as new sources under 40 CFR 122.2 and 40 CFR 122.29.

No exposure – all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).

Non-Stormwater Discharges – discharges that do not originate from storm events. They can include, but are not limited to, discharges of process water, air conditioner condensate, noncontact cooling water, pavement wash water, external building washdown, irrigation water, or uncontaminated ground water or spring water.

Notice of Intent (NOI) – the form (electronic or paper) required for authorization of coverage under a General Permit.

Notice of Termination (NOT) – the form (electronic or paper) required for terminating coverage under a Permit.

NPDES – National Pollutant Discharge Elimination System

NRC – National Response Center

NSPS – New Source Performance Standard

NTU – Nephelometric Turbidity Unit

Operator – that person or those persons with responsibility for the management and performance of each facility.

Operator – any entity with a stormwater discharge associated with industrial activity that meets either of the following two criteria:

1. The entity has operational control over industrial activities, including the ability to make modifications to those activities; or
2. The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).

Outfall – locations where collected and concentrated stormwater flows are discharged from the facility, including pipes, ditches, swales, and other structures that transport stormwater.

Owner – a person who has a legal interest in the facility or in the property on which the facility is located, or the owner's agent.

Permittee – the person holding a permit issued by the Department, or authorized for coverage under a general permit by the department.

Person – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. See 40 CFR 122.2.

Point source – any discernible, confined and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, large animal feeding operation, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are, or may be, discharged.

Pollutant – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water. See 40 CFR 122.2.

Pollutant of concern – A pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a state's 303(d) list.

Pollution – means any contamination or other alteration of the physical, chemical, or biological properties of any waters of this State, including a change in temperature, taste, color, turbidity, or odor of the waters or the discharge or deposit of any organic matter, harmful organism, or liquid, gaseous, solid, radioactive, or other substance into any waters of this State that will render the waters harmful, or detrimental, to:

- (a) Public health, safety, or welfare;
- (b) Domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses;
- (c) Livestock, wild animals, birds; or
- (d) Fish or other aquatic life.

POTW – Publicly Owned Treatment Works

Primary industrial activity – includes any activities performed on-site which are (1) identified by the facility’s primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). [For co-located activities covered by multiple SIC codes, it is recommended that the primary industrial determination be based on the value of receipts or revenues or, if such information is not available for a particular facility, the number of employees or production rate for each process may be compared. The operation that generates the most revenue or employs the most personnel is the operation in which the facility is primarily engaged. In situations where the vast majority of on-site activity falls within one SIC code, that activity may be the primary industrial activity.] Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 million gallons/day or more.

Proprietary Practices – Stormwater controls approved through the Department’s Review Process for New Technologies as described in the Department’s 2005 Proprietary Stormwater Practice Guidance titled “Facts about ...Maryland’s Stormwater Program & Proprietary Practices” found on the Departments website or at this link http://bit.ly/MDE_Proprietary_Practices.

Qualified Personnel – Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at your facility, and who can also evaluate the effectiveness of control measures.

RCRA – Resource Conservation and Recovery Act

Reportable Quantity Release – a release of a hazardous substance at or above the established legal threshold that requires emergency notification. Refer to 40 CFR Parts 110, 117, and 302 for complete definitions and reportable quantities for which notification is required.

Restoration of Impervious Surfaces – Treatment of untreated impervious surfaces with structural or non-structural stormwater management practices based upon designs that treat the volume from one inch of rainfall. Approved practices for industrial sites are identified in Part III.A of the permit.

RQ – Reportable Quantity

Runoff - that portion of stormwater that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, and the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

Runoff coefficient – the fraction of total rainfall that will appear at the conveyance as runoff. See 40 CFR 122.26(b)(11).

Run-on – water from outside the industrial stormwater area that flows into the area. Run-on includes stormwater from rainfall or the melting of snow or ice that falls directly on the unit, as well as the water that drains from adjoining areas.

SARA – Superfund Amendments and Reauthorization Act

Section 313 water priority chemical – a chemical or chemical categories that: 1) are listed at 40 CFR 372.65 pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, also titled the Emergency Planning and Community Right-to-Know Act of 1986; 2) are present at or above threshold levels at a facility subject to SARA Title III, Section 313 reporting requirements; and 3) that meet at least one of the following criteria: (i) are listed in Appendix D of 40 CFR 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols) or Table V (certain toxic pollutants and hazardous substances); (ii) are listed as a hazardous substance pursuant to Section 311(b)(2)(A) of the Clean Water Act at 40 CFR 116.4; or (iii) are pollutants for which EPA has published acute or chronic water quality criteria.

SIC – Standard Industrial Classification

Significant materials – includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA, commonly known as Superfund; any chemical the facility is required to report pursuant to section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges. See 40 CFR 122.26(b)(12).

Significant spills - includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (40 CFR 110.10 and 40 CFR 117.21) or Section 102 of CERCLA (40 CFR 302.4).

SPCC – Spill Prevention, Control, and Countermeasures

State discharge permit - the discharge permit issued under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland.

Stormwater – stormwater runoff, snow melt runoff, and surface runoff and drainage. See 40 CFR 122.26(b)(13).

Stormwater Discharges Associated with Construction Activity – a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow

areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process are located. See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15) .

Stormwater Discharges Associated with Industrial Activity – the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities include those that are federally, State, or municipally owned or operated that meet the description of the facilities listed in 40 CFR 122.26(b)(14). The term also includes those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). See 40 CFR 122.26(b)(14).

Stormwater management – is, as described in the Design Manual, any

1. Quantitative control, a system of vegetative and structural measures that control the increased volume and rate of surface runoff caused by man-made changes to the land; and
2. Qualitative control, a system of vegetative, structural, and other measures that reduce or eliminate pollutants that might otherwise be carried by runoff.

Stormwater Team – the group of individuals responsible for oversight of the development and modifications of the SWPPP, and oversight of compliance with the permit requirements. The individuals on the “Stormwater Team” must be identified in the SWPPP.

Storm Event – a precipitation event that results in a measurable amount of precipitation.

Surface waters – all waters of this State which are not groundwater.

SWPPP – Stormwater Pollution Prevention Plan

Tier 2 Waters – For antidegradation purposes, pursuant to 40 CFR 131.12(a)(2), Tier 2 waters are characterized as having water quality that exceeds the levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.

Total Maximum Daily Loads (TMDLs) – A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. (See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

Treatment of Impervious Surfaces – Implementing the requirements for stormwater management as prescribed in the Department's "2000 Maryland Stormwater Design Manual, Volumes I & II" or the Design Manual for impervious area. The manual spells out both design and implementation requirements using appropriately sized Best Management Practices or Environmental Site Design, based upon designs that manage on-site the water quality volume (WQv) resulting from the first one inch of rainfall from a 24-hour storm preceded by 48 hours of no measurable precipitation.

TSDf – Treatment, Storage, or Disposal Facility

TSS – Total Suspended Solids

USGS – United States Geological Survey

Wastewater – any:

1. Liquid waste substance derived from industrial, commercial, municipal, residential, agricultural, recreational, or other operations or establishments; and
2. Other liquid waste substance containing liquid, gaseous or solid matter and having characteristics that will pollute any waters of the State.

Water Quality Impaired – See 'Impaired Water'

Water Quality Standards – A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. The Department as promulgated in COMAR 26.08.02 (<http://www.dsd.state.md.us/comar/>) and EPA adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (See CWA sections 101(a)2 and 303(c)). Water quality standards also include an antidegradation policy. See P.U.D. o. 1 of Jefferson County et al v. Wash Dept. of Ecology et al, 511 US 701, 705 (1994).

Waters of the State – includes:

1. Both surface and underground waters within the boundaries of this State subject to its jurisdiction, including that part of the Atlantic Ocean within the boundaries of this State, the Chesapeake Bay and its tributaries, and all ponds, lakes, rivers, streams, tidal and nontidal wetlands, public ditches, tax ditches, and public drainage systems within this State, other than those designed and used to collect, convey, or dispose of sanitary sewage; and

2. The flood plain of free-flowing waters determined by the Department of Natural Resources on the basis of the 100-year flood frequency.

WLA – Waste Load Allocation

“You” and “Your” – as used in this permit are intended to refer to the permittee, the operator, or the discharger as the context indicates and that party’s facility or responsibilities. The use of “you” and “your” refers to a particular facility and not to all facilities operated by a particular entity. For example, “you must submit” means the permittee must submit something for that particular facility. Likewise, “all your discharges” would refer only to discharges at that one facility.

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APPENDIX A

**MDE GENERAL PERMIT FOR DISCHARGES FROM STORMWATER
ASSOCIATED WITH INDUSTRIAL ACTIVITIES**

APPENDIX B

NOTICE OF INTENT

APPENDIX C

ALPHA RIDGE LANDFILL CONTACTS

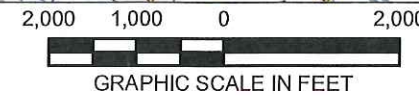
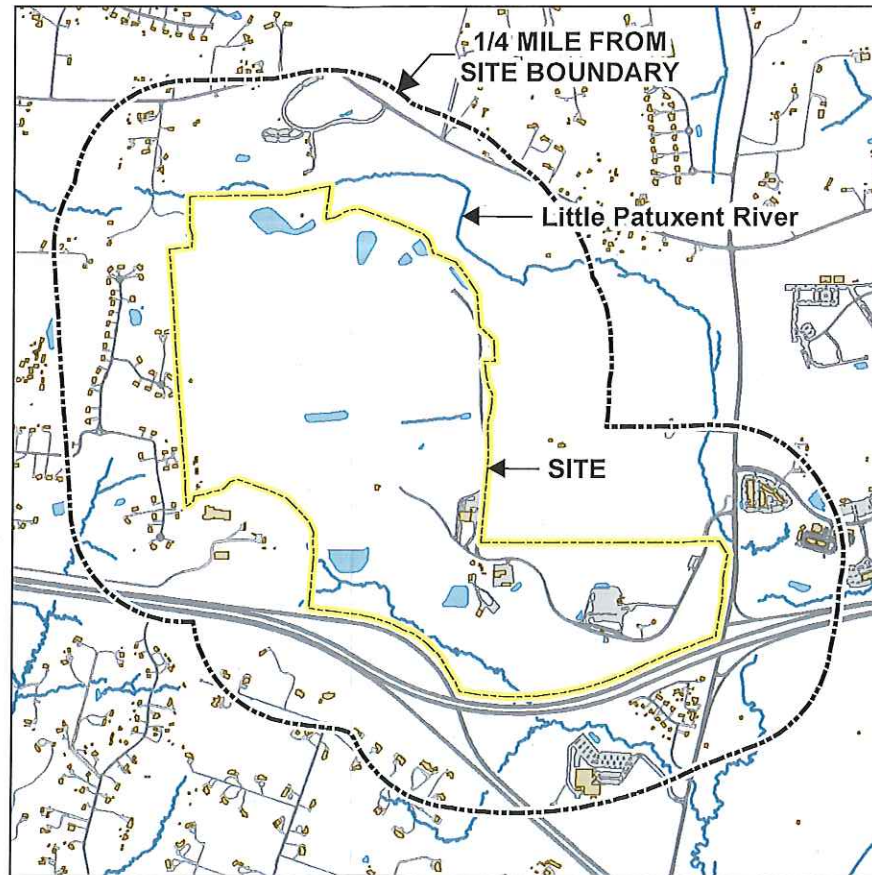
APPENDIX D

POLLUTION PREVENTION TEAM

APPENDIX E
FACILITY MAPS

STORMWATER POLLUTION PREVENTION PLAN HOWARD COUNTY ALPHA RIDGE LANDFILL

MARRIOTTVILLE, MARYLAND
DECEMBER 2016



<u>DRAWING NO.</u>	<u>SHEET NO.</u>	<u>DRAWING TITLE</u>
TS-1	1	TITLE SHEET
A-1	2	AERIAL MAP
S-1	3	SITE MAP
S-1a	3a	SITE MAP A
S-1b	3b	SITE MAP B
S-1c	3c	SITE MAP C

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**EA Engineering, Science,
and Technology, Inc.**

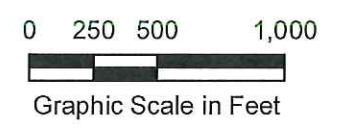
ALPHA RIDGE LANDFILL
STORMWATER POLLUTION PREVENTION PLAN
MARRIOTTVILLE, MD

TITLE SHEET

DESIGNED BY JK	DRAWN BY JK	DATE DEC 2016	PROJECT NO. 1514508
CHECKED BY MG	PROJECT MGR. MS	DRAWING NO. TS-1	FIGURE 1

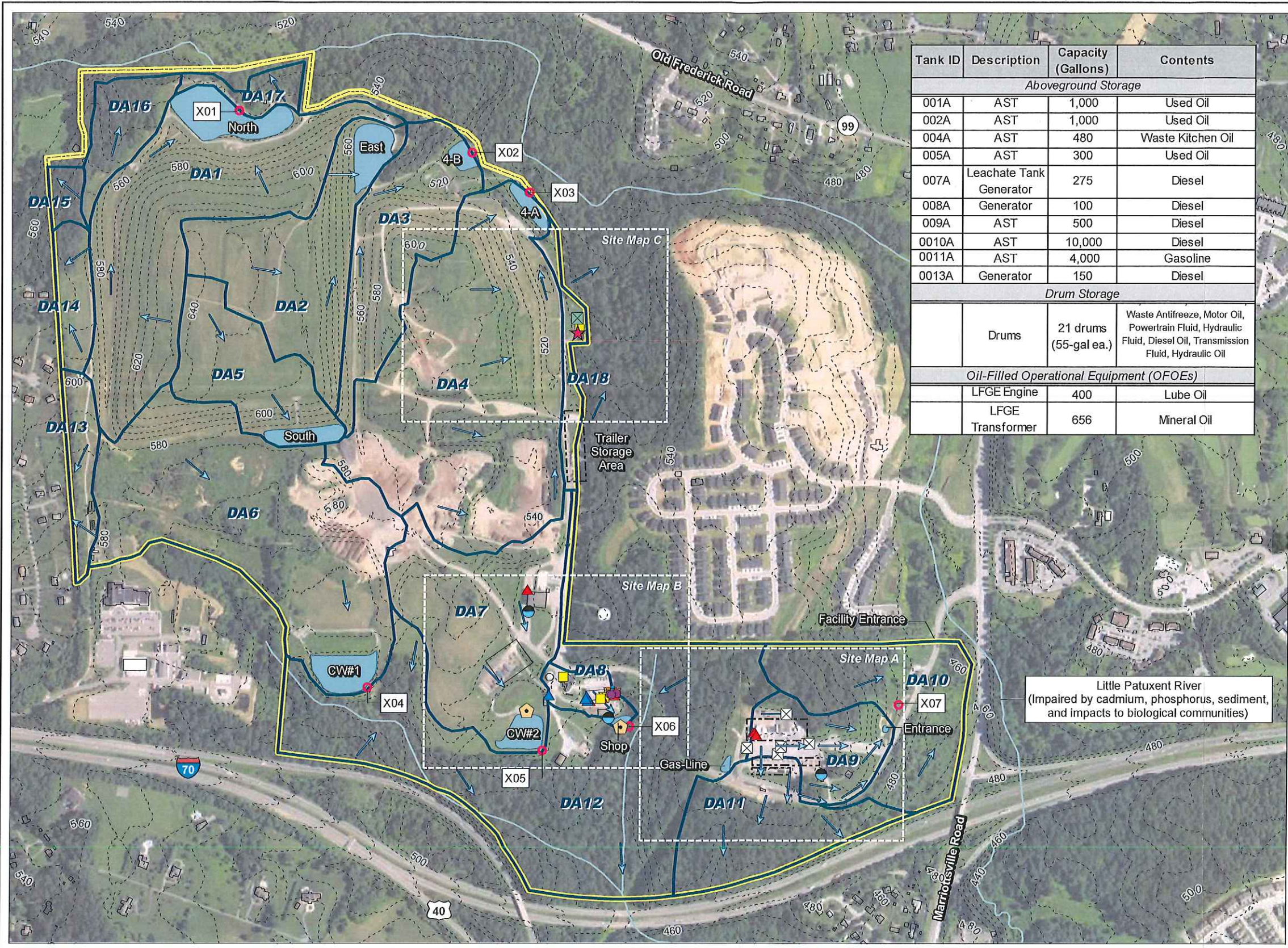


- Legend**
- Outfall
 - ⊕ Monitoring Point
 - Stormwater Pond
 - Storage Area within Facility
 - Property Boundary



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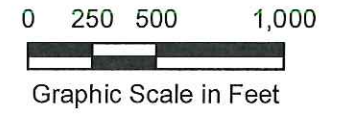
	ALPHA RIDGE LANDFILL STORMWATER POLLUTION PREVENTION PLAN MARRIOTTSVILLE, MD			AERIAL MAP		DESIGNED BY	DRAWN BY	DATE	PROJECT NO.	
						JK	JK	DEC 2016	1514508	
					CHECKED BY		PROJECT MGR.		DRAWING NO.	
					MG		MS		A-1	
									FIGURE	
									2	



Tank ID	Description	Capacity (Gallons)	Contents
Aboveground Storage			
001A	AST	1,000	Used Oil
002A	AST	1,000	Used Oil
004A	AST	480	Waste Kitchen Oil
005A	AST	300	Used Oil
007A	Leachate Tank	275	Diesel
008A	Generator	100	Diesel
009A	AST	500	Diesel
0010A	AST	10,000	Diesel
0011A	AST	4,000	Gasoline
0013A	Generator	150	Diesel
Drum Storage			
	Drums	21 drums (55-gal ea.)	Waste Antifreeze, Motor Oil, Powertrain Fluid, Hydraulic Fluid, Diesel Oil, Transmission Fluid, Hydraulic Oil
Oil-Filled Operational Equipment (OFOEs)			
	LFGE Engine	400	Lube Oil
	LFGE Transformer	656	Mineral Oil

- Legend**
- ▲ AST
 - ▲ Drums
 - Fuel Pump
 - Generator
 - ⊠ Oil-Filled Operational Equipment
 - Oil/Water Separator
 - Outfall
 - ⬠ Pumping Station
 - ⊠ Storm Drain
 - ★ Transformer
 - Surface Water Flow Direction
 - 10' Major Contour
 - Drainage Area
 - Stormwater Pond
 - ⊠ Storage Area within Facility
 - ▭ Property Boundary

Little Patuxent River
(Impaired by cadmium, phosphorus, sediment, and impacts to biological communities)



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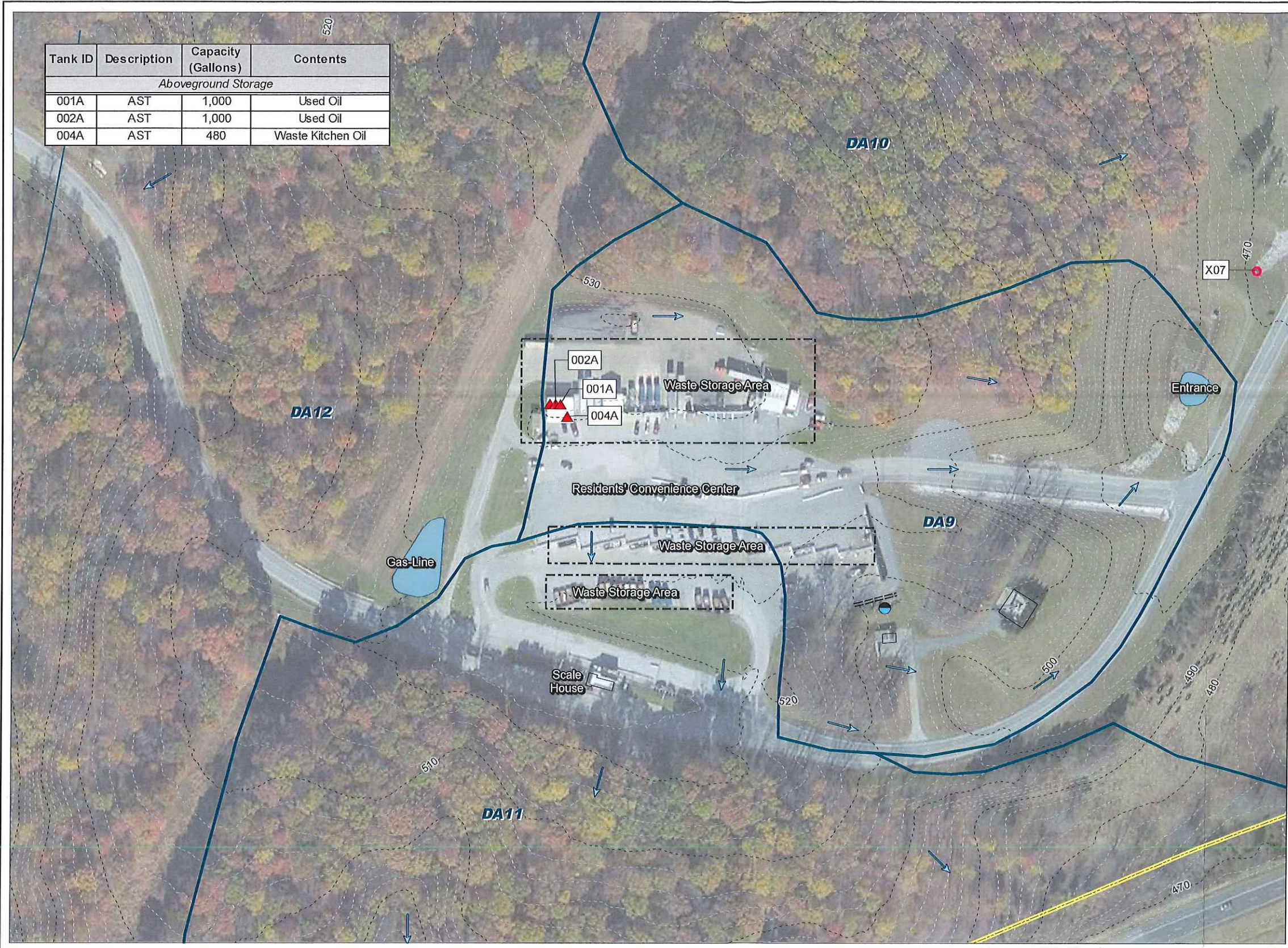
ALPHA RIDGE LANDFILL
STORMWATER POLLUTION PREVENTION PLAN
MARRIOTTSVILLE, MD

SITE MAP

DESIGNED BY JK	DRAWN BY JK	DATE DEC 2016	PROJECT NO. 1514508
CHECKED BY MG	PROJECT MGR. MS	DRAWING NO. S-1	FIGURE 3

Tank ID	Description	Capacity (Gallons)	Contents
<i>Aboveground Storage</i>			
001A	AST	1,000	Used Oil
002A	AST	1,000	Used Oil
004A	AST	480	Waste Kitchen Oil

- Legend**
- ▲ AST
 - Oil/Water Separator
 - Outfall
 - Surface Water Flow Direction
 - - - 2' Minor Contour
 - - - 10' Major Contour
 - === Trench Drain
 - Drainage Area
 - Stormwater Pond
 - ⋯ Storage Area within Facility
 - ▭ Property Boundary

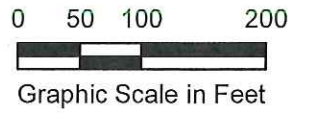
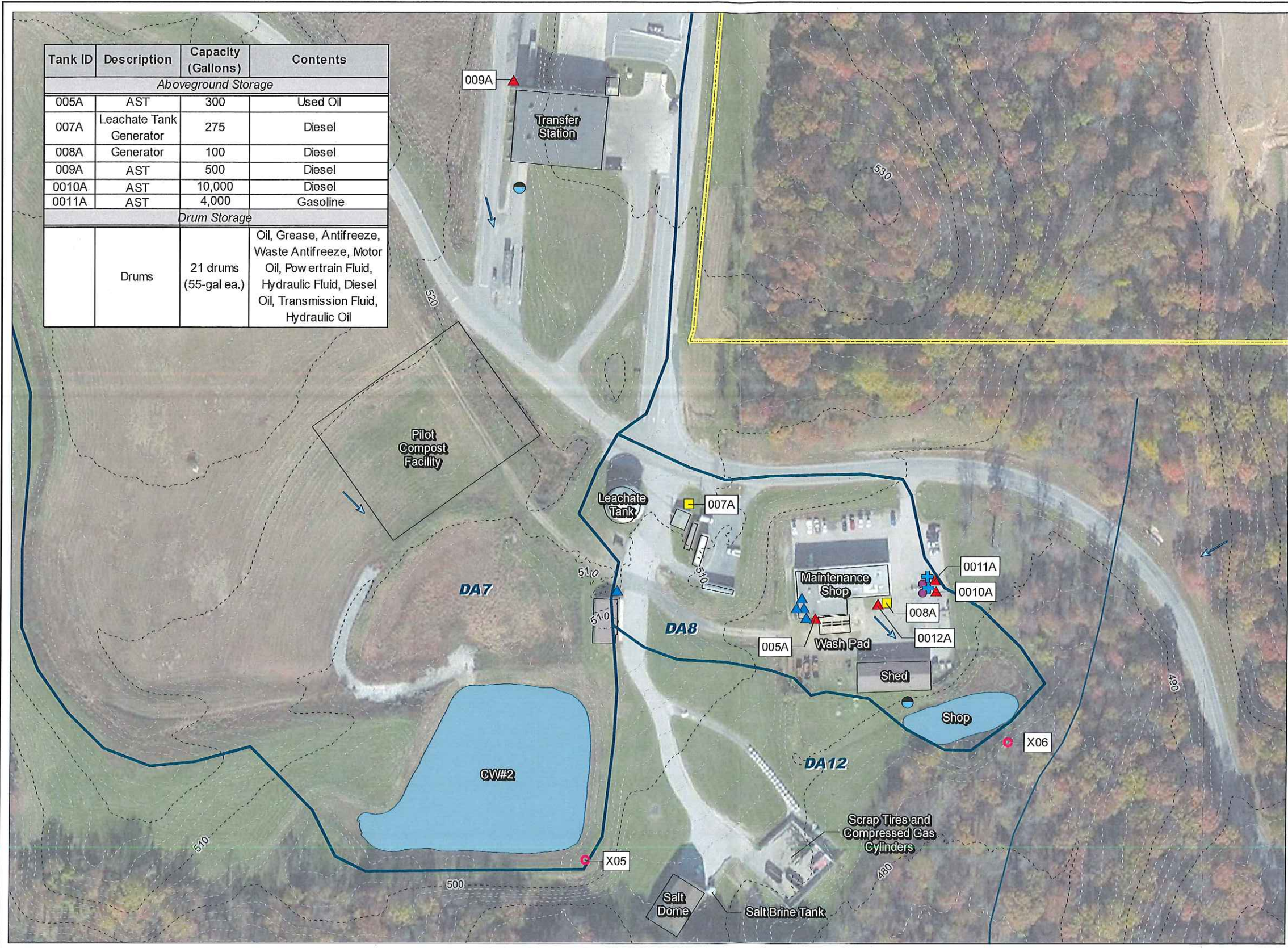


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	ALPHA RIDGE LANDFILL STORMWATER POLLUTION PREVENTION PLAN MARRIOTTSVILLE, MD			SITE MAP A		DESIGNED BY JK	DRAWN BY JK	DATE DEC 2016	PROJECT NO. 1514508
			CHECKED BY MG	PROJECT MGR. MS	DRAWING NO. S-1a	FIGURE 3a			

Tank ID	Description	Capacity (Gallons)	Contents
<i>Aboveground Storage</i>			
005A	AST	300	Used Oil
007A	Leachate Tank Generator	275	Diesel
008A	Generator	100	Diesel
009A	AST	500	Diesel
0010A	AST	10,000	Diesel
0011A	AST	4,000	Gasoline
<i>Drum Storage</i>			
	Drums	21 drums (55-gal ea.)	Oil, Grease, Antifreeze, Waste Antifreeze, Motor Oil, Pow ertrain Fluid, Hydraulic Fluid, Diesel Oil, Transmission Fluid, Hydraulic Oil

- Legend**
- ▲ AST
 - Oil/Water Separator
 - Outfall
 - ▲ Drums
 - Fuel Pump
 - Generator
 - ⊕ Spill Kit
 - Surface Water Flow Direction
 - 2' Minor Contour
 - - - 10' Major Contour
 - === Trench Drain
 - Drainage Area
 - Stormwater Pond
 - Storage Area within Facility
 - Property Boundary



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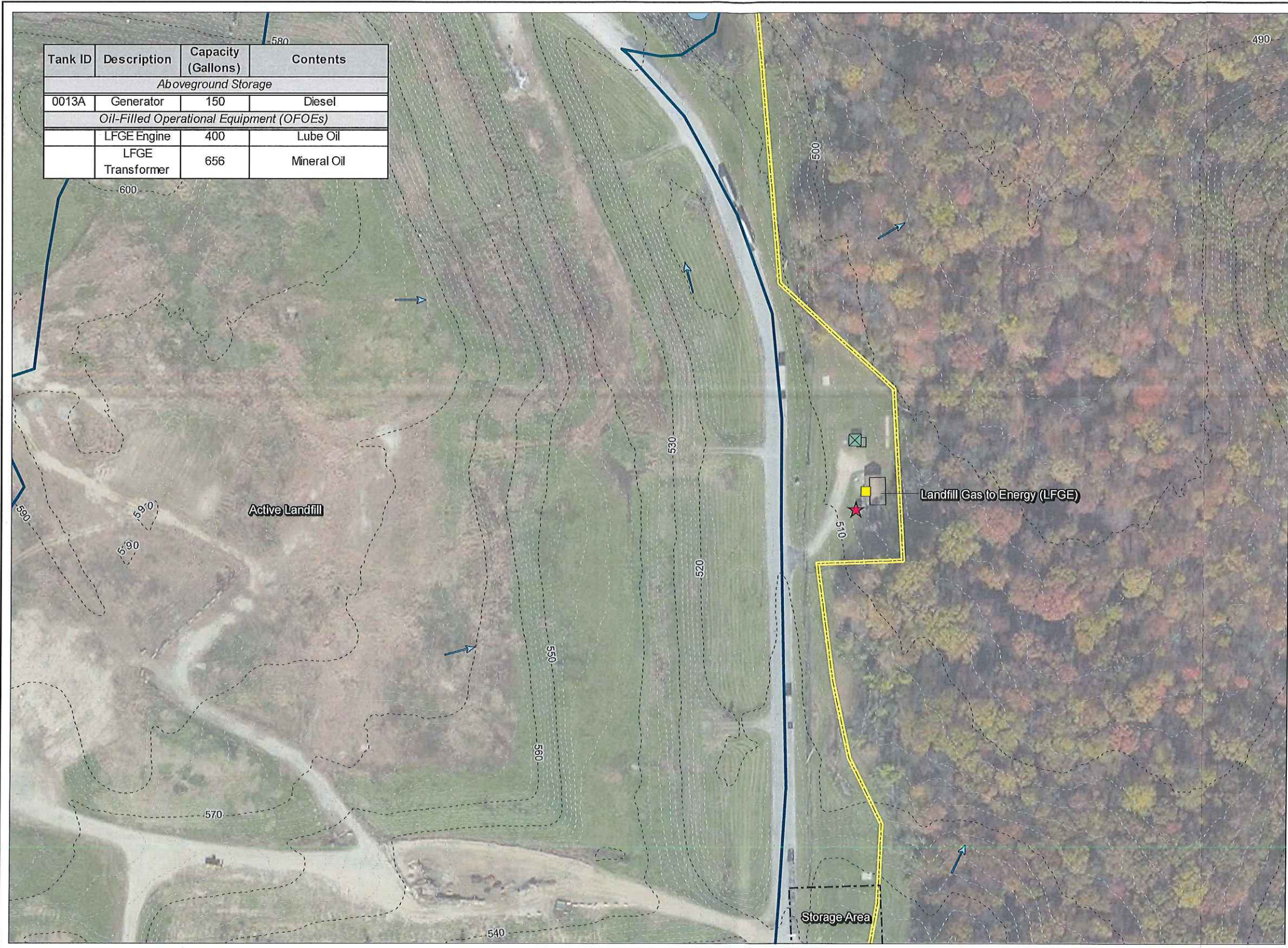


ALPHA RIDGE LANDFILL
STORMWATER POLLUTION PREVENTION PLAN
MARRIOTTSVILLE, MD

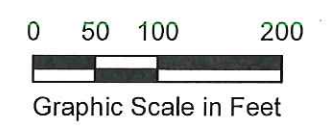
SITE MAP B

DESIGNED BY JK	DRAWN BY JK	DATE DEC 2016	PROJECT NO. 1514508
CHECKED BY MG	PROJECT MGR. MS	DRAWING NO. S-1b	FIGURE 3b

Tank ID	Description	Capacity (Gallons)	Contents
<i>Aboveground Storage</i>			
0013A	Generator	150	Diesel
<i>Oil-Filled Operational Equipment (OFOEs)</i>			
	LFGE Engine	400	Lube Oil
	LFGE Transformer	656	Mineral Oil



- Legend**
- Generator
 - ⊗ Oil-Filled Operational Equipment
 - ★ Transformer
 - Surface Water Flow Direction
 - 2' Minor Contour
 - - - 10' Major Contour
 - === Trench Drain
 - Drainage Area
 - Stormwater Pond
 - Storage Area within Facility
 - Property Boundary



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ALPHA RIDGE LANDFILL
STORMWATER POLLUTION PREVENTION PLAN
MARRIOTTSVILLE, MD

SITE MAP C

DESIGNED BY JK	DRAWN BY JK	DATE DEC 2016	PROJECT NO. 1514508
CHECKED BY MG	PROJECT MGR. MS	DRAWING NO. S-1c	FIGURE 3c

APPENDIX F

NON-STORMWATER DISCHARGE EVALUATION

APPENDIX G

**STORMWATER MANAGEMENT FACILITY INSPECTION AND
MAINTENANCE PROCEDURE**

APPENDIX H

VEHICLE AND EQUIPMENT MAINTENANCE POLICY

APPENDIX I

HOWARD COUNTY SPILL RESPONSE AND NOTIFICATION SOP

APPENDIX J

TRAINING OUTLINE AND ATTENDANCE SHEET

APPENDIX K

ROUTINE FACILITY AND CSCE CHECKLIST

APPENDIX L
QUARTERLY VISUAL MONITORING FORM