PPRP

Coal Ash Resources of Maryland

MARYLAND POWER PLANT RESEARCH PROGRAM

Wes Moore - Governor | Aruna Miller - Lieutenant Governor
Josh Kurtz - Secretary

Contact Information:

Toll Free in Maryland 1-877-620-8DNR ext. 8772 or 410-260-8772
Web: dnr.maryland.gov
Maryland Department of Natural Resources
Resource Assessment Service
Power Plant Research Program
580 Taylor Ave.
Annapolis, MD 21401
Prepared under the direction of Paul Petzrick

PPRP: 171
DNR: 12-071922-322
January 2025

Coal Ash Resources of Maryland
Preface

Coal ash (also known as coal combustion residuals (CCR) or coal combustion by-products (CCBs)) is the solid residue that remains after coal is burned. These terms include both the non-combustible mineral components contained within coal (fly ash, bottom ash, boiler slag, fluidized bed combustion ash (FBC), etc.), and solid emission control residues from scrubbers (flue gas desulfurization material (FGD)). These materials have been generated in one form or another since coal was first used for energy production. While these materials do not generally meet the definition of hazardous wastes as defined under the Resource Conservation and Recovery Act (RCRA), they may contain concentrated levels of toxic metals such as arsenic and mercury that were naturally present in the coal. Furthermore, the small particle size and high surface area of some coal ash materials, especially fly ash, facilitates the leaching of these metals into groundwater and surface water. Beyond just being a waste product, the various types of coal ash have distinctive chemical and physical properties that make them useful as raw materials in a variety of manufactured products such as cement, concrete, grout, brick, tile, and wallboard.

In acknowledgment of the potential beneficial uses of CCBs, the Maryland Pozzolan Act was passed in 1974. The act addresses materials with pozzolanic properties, meaning they will participate in cementitious reactions when mixed with free lime and water. Fly ash is a classic example of an effective and high-quality pozzolan material. The Pozzolan Act provided that pozzolanic materials should be beneficially used or stored in a manner to allow for future beneficial use.

In part because of the utility of coal ash for manufactured products, the 1980 Bevill Amendment excluded coal ash materials from the definition of waste under RCRA. Under this regulatory framework, coal ash was stored or disposed of in a variety of lined and unlined ponds and landfills and was utilized as structural fill at many sites across the United States. National attention was drawn to the handling of coal ash when a dam failure in Kingston, Tennessee in December 2008 resulted in a large release of coal ash and impacted water that caused severe environmental damage. During the period following, the United States Environmental Protection Agency (EPA) released reports about other cases in which coal ash fills had been found to have caused environmental damage; among these "damage cases" was the BBSS site in Gambrills, Maryland. These damage cases led the EPA to establish a federal rule for coal ash disposal (the 2015 Federal CCR Rule). This rule established requirements for site selection and construction of new disposal sites, groundwater monitoring requirements for new and existing disposal sites, and closure timelines for non-compliant disposal sites.

However, the 2015 Federal CCR Rule did not address the millions of tons of coal ash that had been placed into unlined landfills, ponds, and structural fill sites that were closed before its enactment (also called "legacy sites"). These sites continue to have the potential to impact groundwater and surface water resources, not just in their immediate vicinity but at downstream locations as well. Within Maryland, there are more than 60 sites known to contain coal ash materials. Some of these sites date back to the 1950s. Some sites are currently in use, others are awaiting closure, and some were closed previously, following the standards of that time. Some have groundwater monitoring networks in place, some have been the subject of groundwater investigations, but many have never been subject to groundwater monitoring, as it was not required at the time of ash placement. The continuing potential of legacy coal ash sites to impact water quality was highlighted by a report published in 2019 by the Environmental Integrity Project (EIP, 2019). The EIP used groundwater monitoring data published under the 2015 Federal CCR Rule to determine that the majority of coal ash disposal sites regulated under the Rule exhibit elevated concentrations of metals in nearby groundwater resources.

This inventory of coal ash deposits in Maryland has been prepared to document what is known about the relationship of these deposits to water quality. The Maryland Power Plant Research Program (PPRP) seeks to promote recovery of coal ash deposits for beneficial use in a manner that will minimize their future impact on water quality to protect the environment. Ash that is recovered and beneficially used in solidified products like concrete, grout, brick, and tile has far less potential to impact the environment. Thus, the beneficial use of coal ash in manufactured products provides both environmental and economic benefits. Even at sites where recovery of ash for beneficial use may not be logistically, or economically feasible, a reliable record of their presence in closed disposal and fill sites is important for monitoring and protecting water resources in the vicinity. It is necessary to retain a record of where these sites are located and track

them, particularly in the event of planned redevelopment activities and natural river channel changes that could disturb the soil in these areas. This inventory was created to provide this kind of record and includes information on 67 sites in Maryland. While information on the volume of CCR present is not available for all sites, the amounts that are documented range from less than 2 thousand to more than 4 million tons of CCR

TABLE OF CONTENTS

Allegany County

AMCELLE RUBBLE LANDFILL COAL ASH DEPOSIT

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland; Image Date: Summer 2022
Dashed line shows possible fill area based on surface morphology and historic aerial imagery.

Site Name: Amcelle Rubble Landfill

State, County, City: Maryland, Allegany County, Cumberland

Site Address: 13800 McMullen Hwy, SW, Cumberland

Coordinates: 39°35'51.76"N, 78°49'2.47"W

Owner/Contact: Carl Lazerow; Maryland Department of Public Safety; and Correctional Services

Number and Type of CCR Storage Units: 1 Structural fill

Accepted Materials (e.g. fly ash, gypsum): Unknown, likely Class F fly ash and bottom ash under the landfill; the landfill received building demolition debris

Estimated Quantity of CCRs: Unknown

Estimated Area: 6.3 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

AMCELLE RUBBLE LANDFILL COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology and historical aerial imagery.

Notes

Site History: The rubble landfill was constructed over a portion of a former CCR lagoon owned by Celanese, a manufacturing plant in Cumberland. The remaining portion of the former lagoon may have been intended to be a county landfill that was never constructed. The rubble landfill was closed and capped as of 2010. MDE 2010 CCR fact sheet indicates that vegetation is present on the CCR fill area not covered by the rubble landfill. The location marked in this image is based on the appearance of land in this area and its proximity to Amcelle St.

Environmental Impacts: Groundwater is monitored through a groundwater discharge permit that was renewed in 2020 (MDE, 2020).

Sources: Allegany County, 2015; MDE, 2010; MDE, 2019; MDE, 2022

CABIN RUN/VINDEX ENERGY #6 COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: April 2023
Dashed line shows possible fill area based on surface morphology.

Site Name: Cabin Run/Vindex Energy #6

State, County, City: Maryland, Allegany County

Site Address: Southwest quadrant of the intersection of Cabin Run Road and Rt. 36

Coordinates: 39°36'49.25"N 78°55'18.19"W

Owner/Contact: Allegany Coal-Land Co.

Number and Type of CCR Storage Units: 1 Structural fill

Accepted Materials (e.g. fly ash, gypsum): FBC Fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

CABIN RUN/VINDEX ENERGY #6 COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

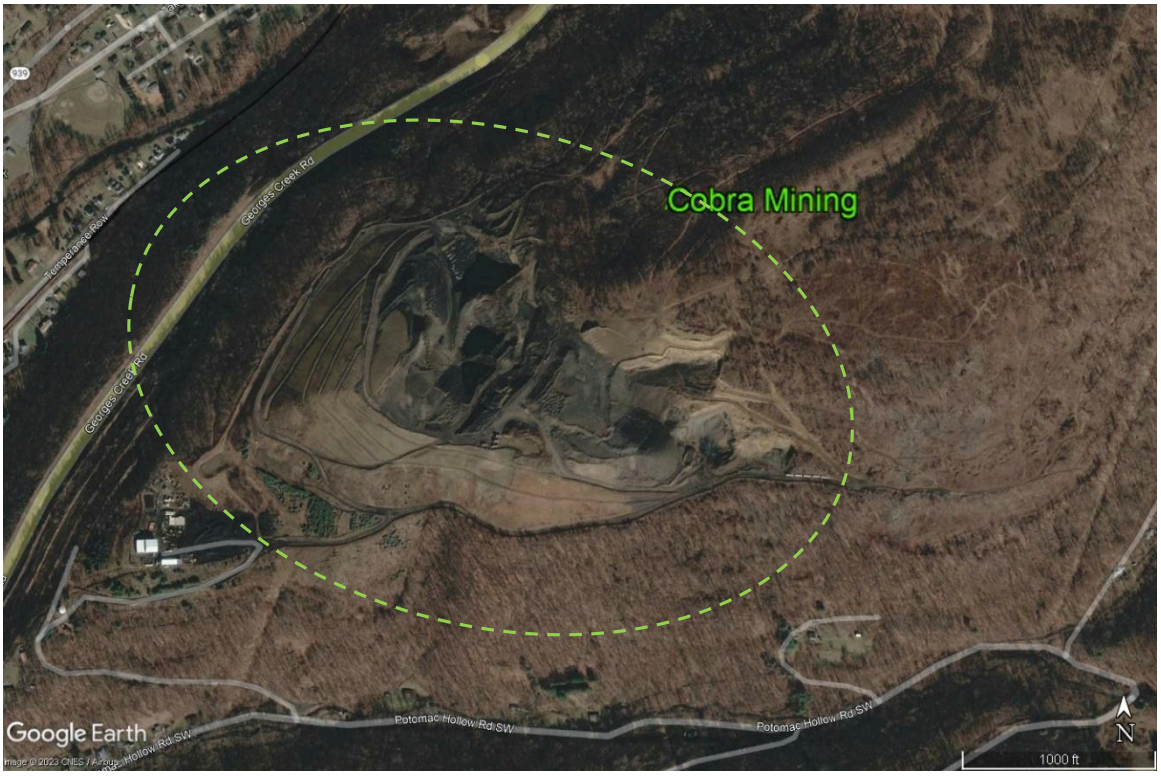
Notes

Site History: MDE Site ID# SM-01-439. Alkaline fluidized bed combustion (FBC) fly ash and bottom ash from Warrior Run Power Plant were used to reclaim a surface mine. The site was listed as having received CCR as recently as 2022 in the tonnage report submitted to MDE by Warrior Run Power plant. A records search indicates a Cabin Run Landfill for mixed wastes operated from 1975-1981. The landfill was associated with a former coal surface mine, but there are no records of CCR disposal there (see MDE, 2010). It is unclear if the mining and use of CCRs to backfill the mine (2012-2022) are associated with that site.

Environmental Impacts: Investigations were performed by MDE and EPA associated with Cabin Run Landfill in the late 1990s; it is unclear if this is associated with recent CCR use (2012-2016).

Sources: MDE, 2010; Hooker, 2017; MDE CCB, 2008-2023; Maryland MERLIN Online

COBRA MINING, INC. COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: February 2020
Dashed line shows possible fill area based on surface morphology.

Site Name: Cobra Mining, Inc.

State, County, City: Maryland, Allegany County

Site Address: Potomac Hollow Road - 0.5 miles East of Barton

Coordinates: 39°32'0.80"N 79°0'15.89"W

Owner/Contact: Moran Coal Co.

Number and Type of CCR Storage Units: 1 Structural fill

Accepted Materials (e.g. fly ash, gypsum): FBC Fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

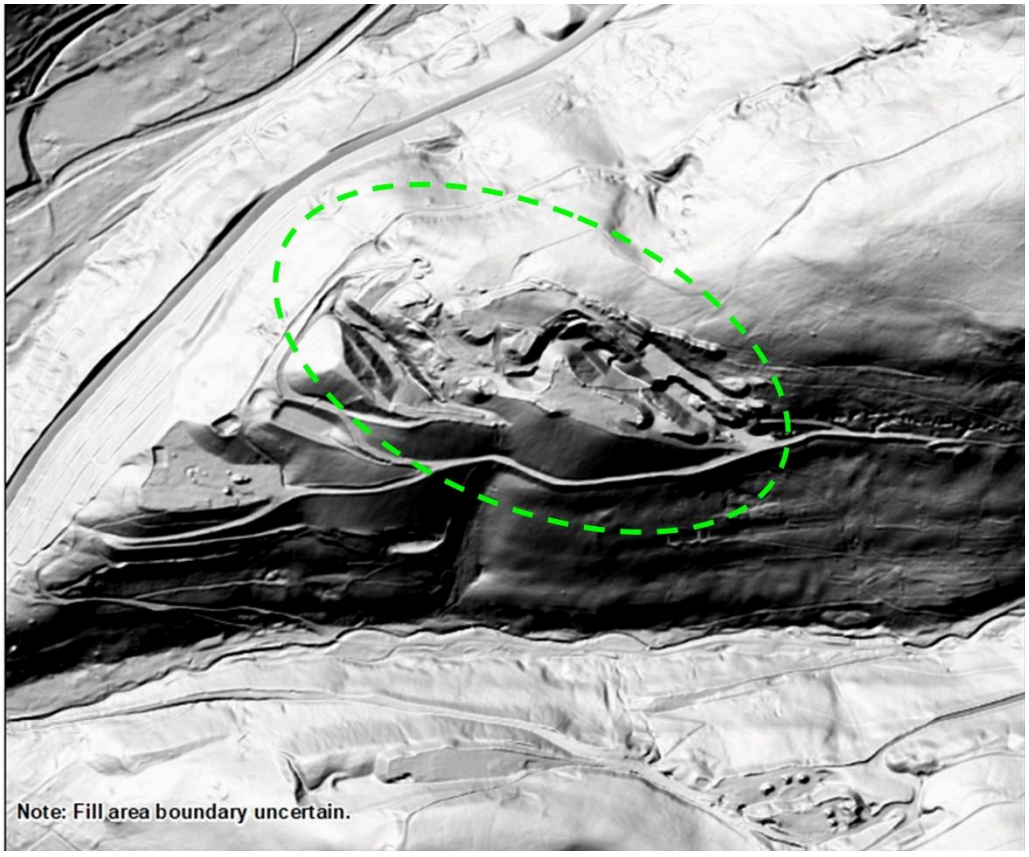
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

COBRA MINING, INC. COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE Site ID# SM-01-437. As of June 2017, the site status was listed as Active. Alkaline fluidized bed combustion (FBC) fly ash and bottom ash from the Warrior Run Power Plant were used to reclaim the surface mine between 2004 and 2010.

Environmental Impacts: No information available.

Sources: MDE, 2010; Hooker, 2017; PPSP, 1982a; MDE, 2008-2023; Maryland MERLIN Online

CUMBERLAND SITE 1 COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: September 2016

Site Name: Cumberland Site 1

State, County, City: Maryland, Allegany County, Cumberland

Address: West Side of Rt. 220 near the intersection with Upper Potomac Industrial Park St.

Coordinates: 39°38'14.50"N 78°47'55.36"W

Owner: Franklenberry Barth A. Sr-Donald K.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Approximately 5 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

CUMBERLAND SITE 1 COAL ASH DEPOSIT– LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data

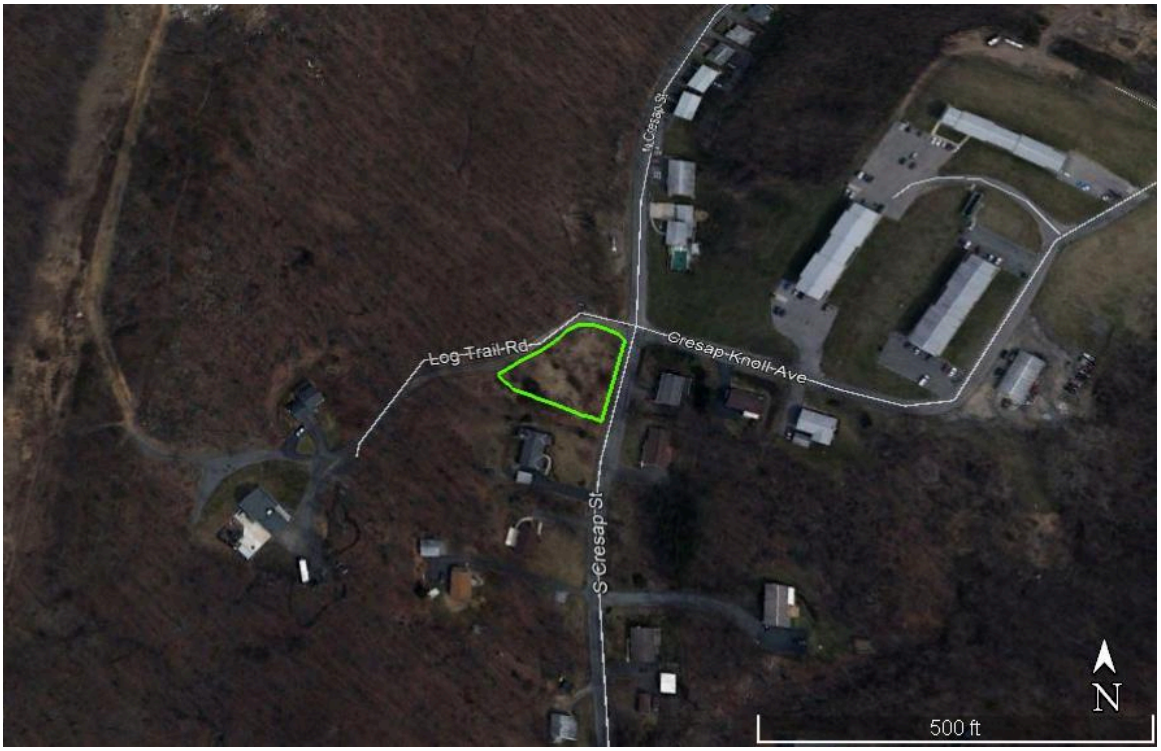
Notes

Site History: Site location and area are approximate. The site received fly ash and bottom ash from the Cumberland Power Plant from the late 1950s to the early 1960s. The Cumberland Power Plant generated relatively small quantities of ash that, at this time, were disposed of in "landfills south of Cumberland" (PPSP, 1982a). The plant stopped burning coal in 1970.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

CUMBERLAND SITE 2 COAL ASH DEPOSIT



Source: GoogleEarth, 2020; Image Date: November 2016

Site Name: Cumberland Site 2

State, County, City: Maryland, Allegany County, Cumberland

Address: West of N. Cresap St.

Coordinates: 39°37'6.67"N 78°48'42.63"W

Owner: Oster Wayne A. Firlie

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Approximately 5 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

CUMBERLAND SITE 2 COAL ASH DEPOSIT– LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

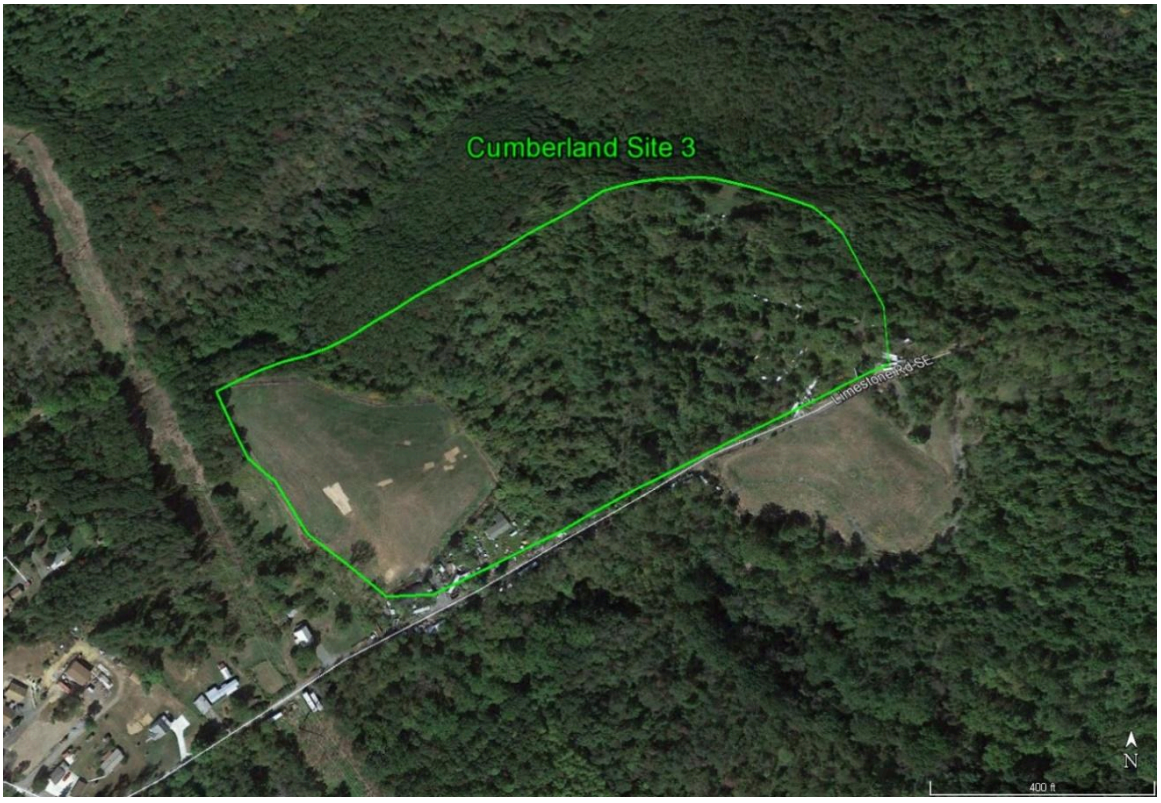
Notes

Site History: Site location and area are approximate. It appears that Log Trail Road may have been constructed over part of the fill site. The Cumberland Power Plant generated only small quantities of ash that were disposed of in landfills south of Cumberland. The Cumberland Power Plant stopped burning coal in 1970 (PPSP, 1982a).

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

CUMBERLAND SITE 3 COAL ASH DEPOSIT



Source: GoogleEarth, 2020; Image Date: September 2016

Site Name: Cumberland Site 3

State, County, City: Maryland, Allegany County, Cumberland

Address: North of Limestone Rd.

Coordinates: 39°37'31.89"N 78°43'34.55"W

Owner: Diggs, Joseph T. (associated with a former landfill), possibly also Brabson Delmas Ray-Carolyn

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Class F fly ash, bottom ash, domestic waste

Estimated Quantity of CCRs: Unknown

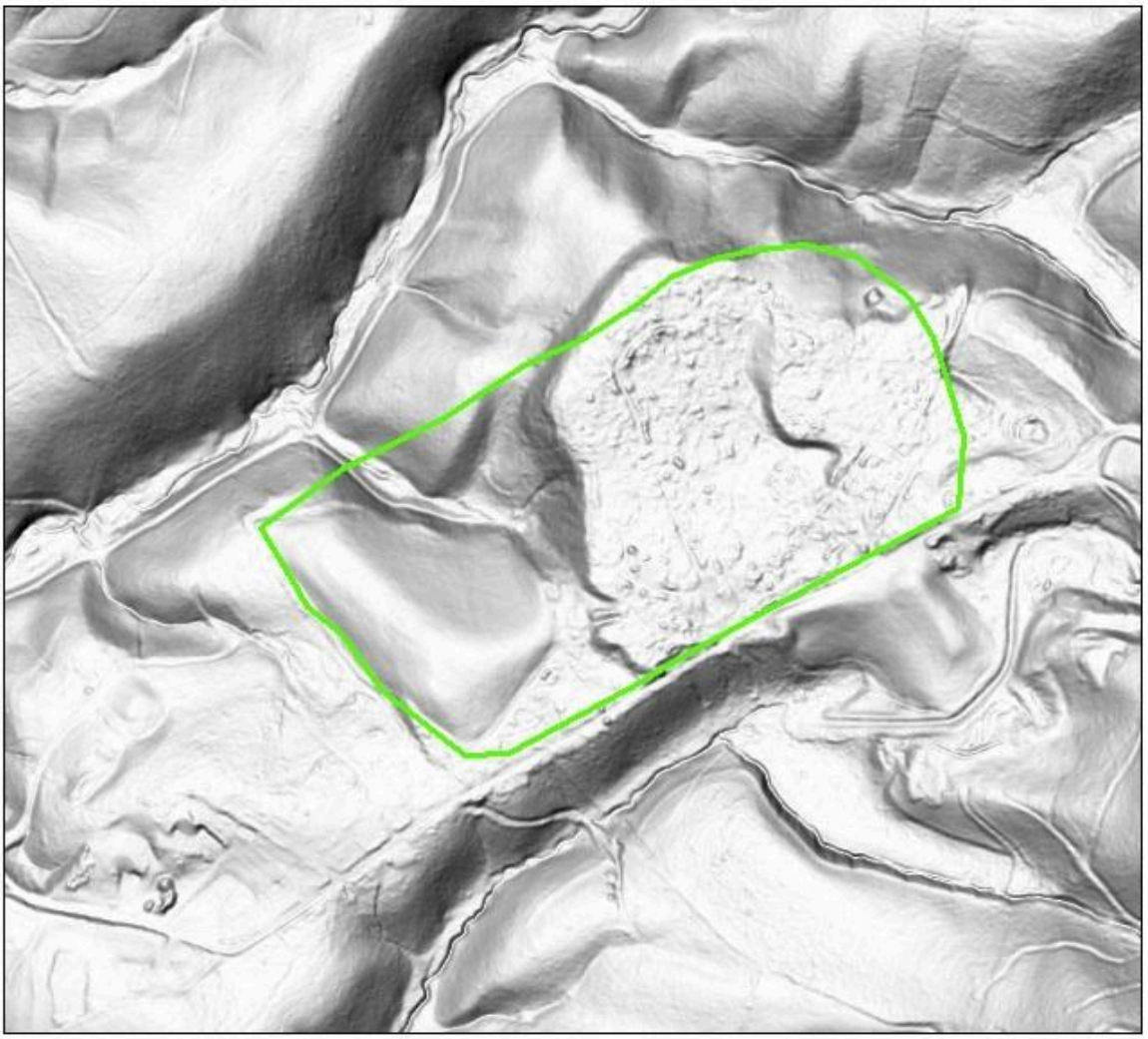
Estimated Area: 5 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

CUMBERLAND SITE 3 COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

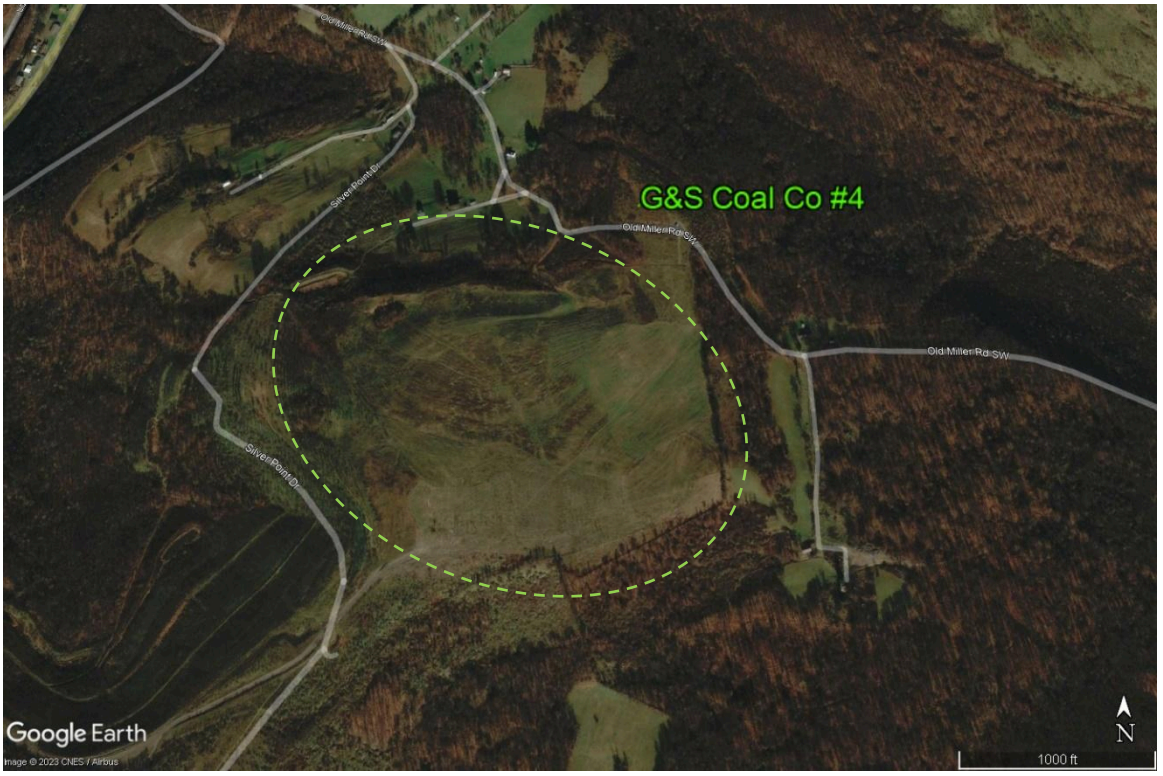
Notes

Site History: Site location and area are approximate. The site received fly ash and bottom ash from the Cumberland Power Plant from the late 1950s to the early 1960s. The Cumberland Power Plant generated relatively small quantities of ash that, at this time, were disposed of in "landfills south of Cumberland". The plant stopped burning coal
in 1970.

Environmental Impacts: The site is located on Limestone Road south of Cumberland and is near the Diggs Sanitary Landfill former Superfund site. Operations ceased in 1968. The site was listed with the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) in 1981. State and federal investigations occurred in 1981, 1986, and 1992. The site was archived in CERCLIS in 1994.

Sources: PPSP, 1982a; Maryland MERLIN Online

G&S COAL CO. #4 COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: November 2020
Dashed line shows possible fill area based on surface morphology.

Site Name: G&S Coal Co. #4

State, County, City: Maryland, Allegany County

Address: Miller Road, South of Barton, 1 mile east of Rt. 36 Intersection

Coordinates: 39°30'33.45"N 79°0'36.60"W

Owner: North Branch Holdings, LLC.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

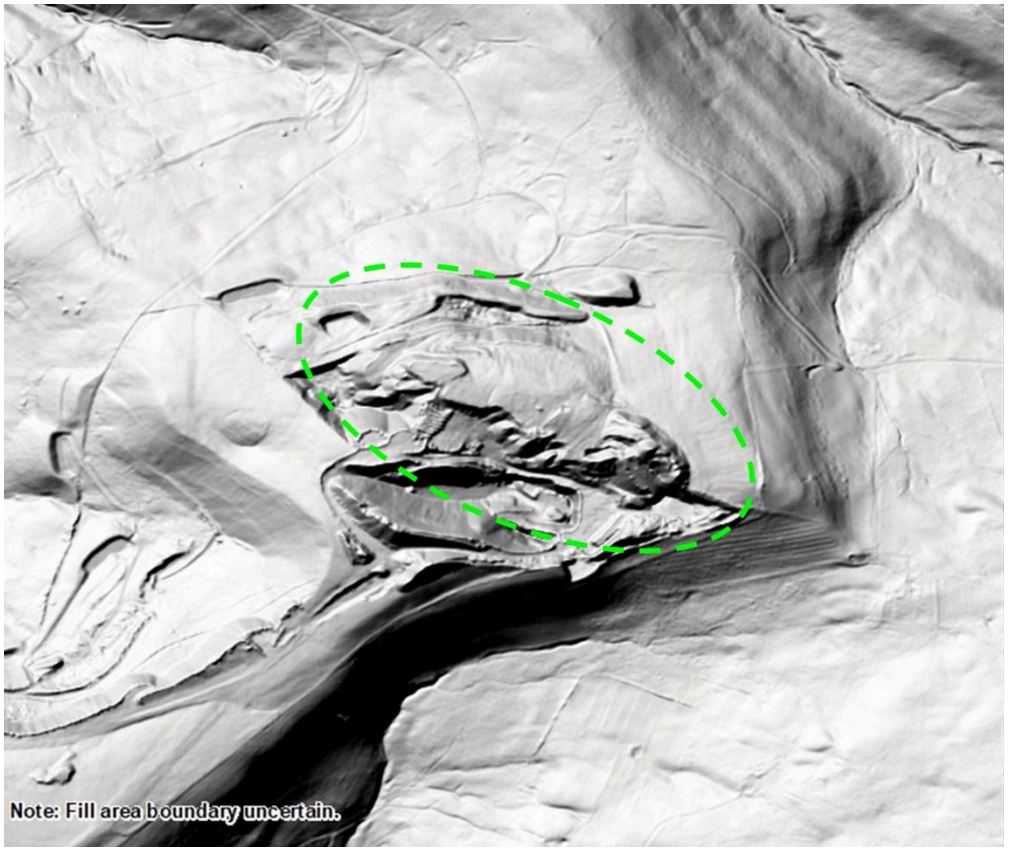
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: September 2020

G&S COAL CO. #4 COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology and historical imagery.

Notes

Site History: MDE ID#: SM-01-440. As of June 2017, the site status was listed as Active. Alkaline FBC fly ash and bottom ash from the Warrior Run Power Plant were used to reclaim the surface coal mine.

Environmental Impacts: MDE, 2010 indicates that offsite water monitoring has been performed.

Sources: Hooker, 2017; MDE, 2010; Maryland MERLIN Online

MOUNTAIN VIEW LANDFILL COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2016

Site Name: Mountain View Landfill

State, County, City: Maryland, Allegany County

Address: 13300 New George's Creek Road, Frostburg

Coordinates: 39°36'43.81"N 78°54'35.32" W

Owner: Chambers of MD, Inc.

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Class F fly, possible bottom ash, and domestic waste

Estimated Quantity of CCRs: Approximately 10,000 tons (MDE, 2010)

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

MOUNTAIN VIEW LANDFILL COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

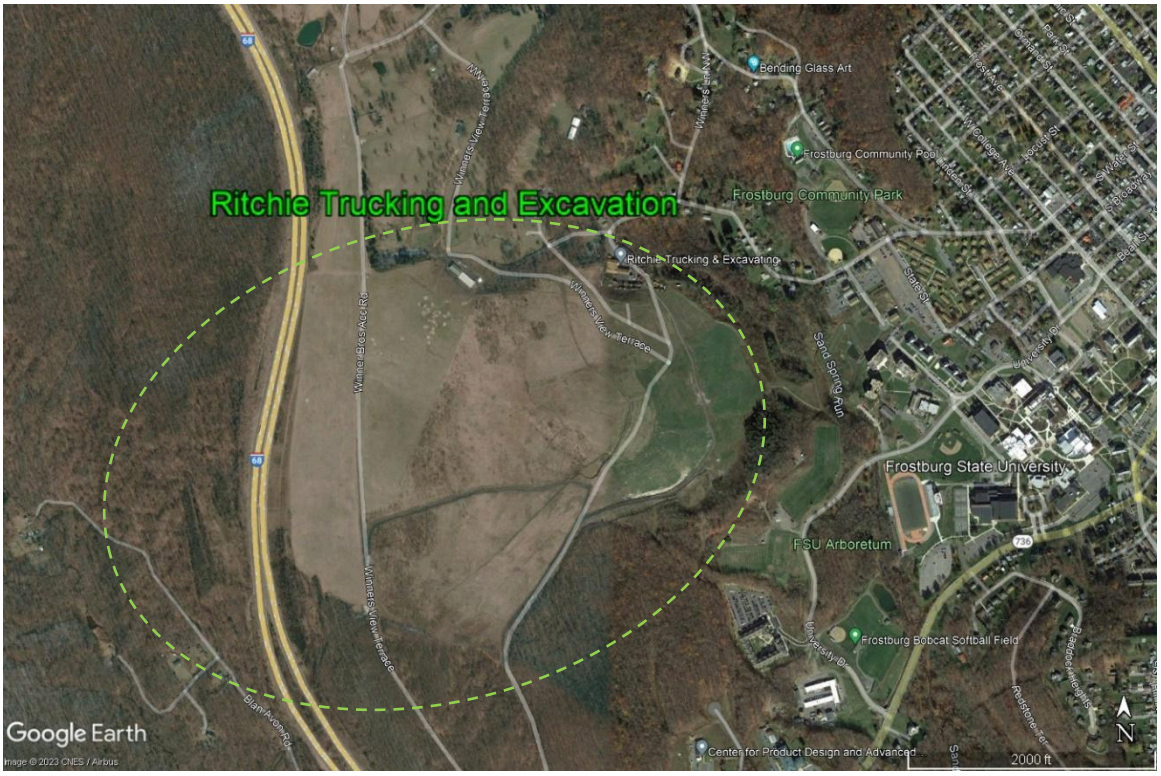
Notes

Site History: Class F fly ash from the Brandon Shores and H.A. Wagner Power Plant was disposed of at the site. The full period of active disposal is unknown but as of 2008 approximately 10,000 tons of CCRs had been disposed of at the site (MDE, 2010). The facility was still active as of 2023.

Environmental Impacts: Groundwater monitoring is performed onsite in accordance with the landfill permit (MDE, 2010).

Sources: MDE, 2010; Allegany Co. Maryland, 2023.

RITCHIE TRUCKING AND EXCAVATION COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: November 2020
Dashed line shows possible fill area based on surface morphology.

Site Name: Ritchie Trucking and Excavating

State, County, City: Maryland, Allegany County

Site Address: Midlothian Rd 1 mile south of Frostburg

Coordinates: 39°39'4.73"N 78°56'55.94"W

Owner/Contact: Allegany Coal Land Co.

Number and Type of CCR Storage Units: 1 Structural fill

Accepted Materials (e.g. fly ash, gypsum): FBC Fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

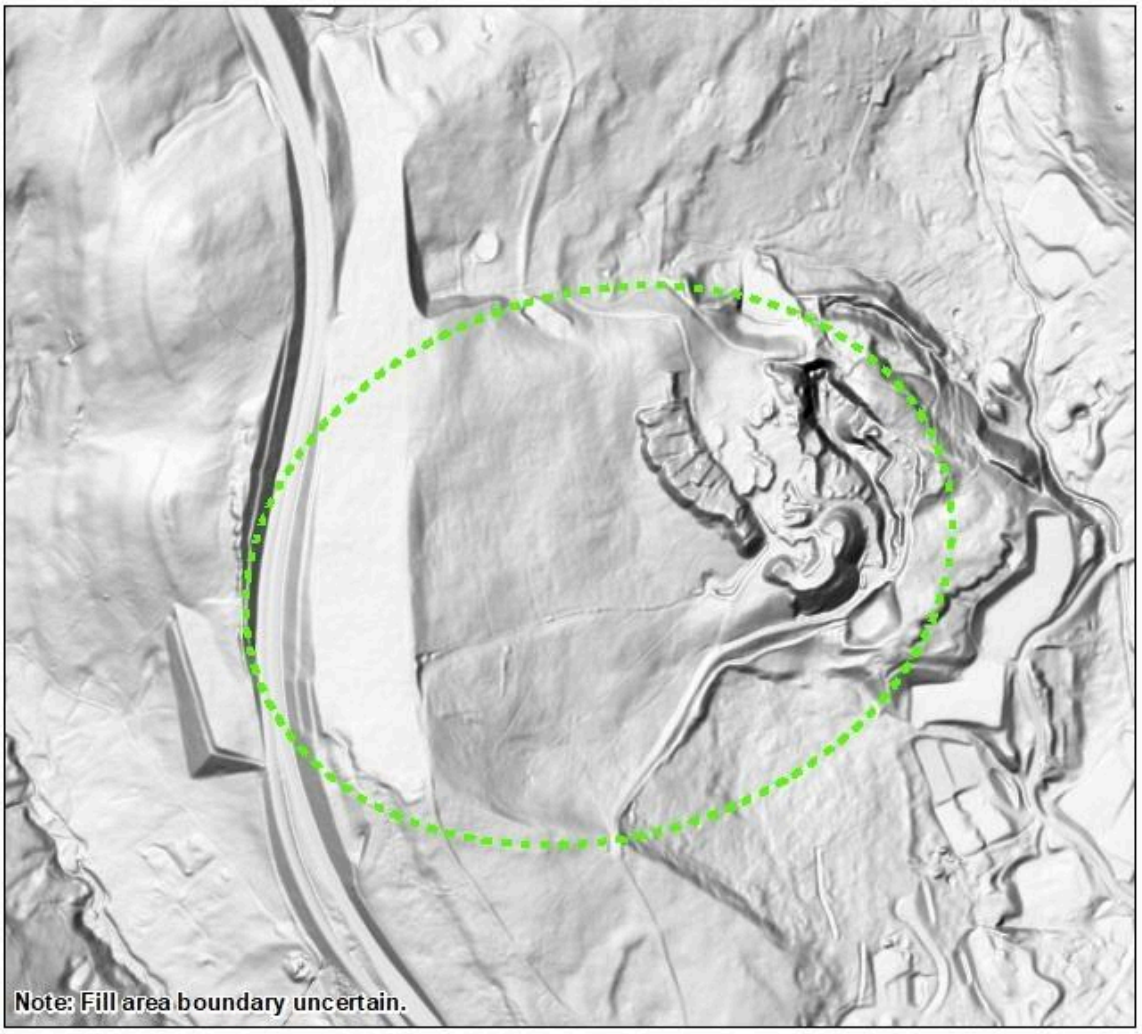
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

RITCHIE TRUCKING AND EXCAVATION COAL ASH DEPOSIT
– LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-08-40. As of June 2017, the site status is listed as capped. Alkaline fluidized bed combustion (FBC) fly ash and bottom ash from the Warrior Run Power Plant were used to reclaim the surface mine. The site has been inactive since 2010 (MDE, 2010).

Environmental Impacts: MDE, 2010 indicates that offsite water monitoring has been performed.

Sources: Hooker, 2017; MDE, 2010

TRI-STAR MINING #3 COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: February 2020
Dashed line shows possible fill area based on surface morphology and historical aerial imagery.

Site Name: Tri-Star Mining#3

State, County, City: Maryland, Allegany County

Site Address: Michael Road via Bartlett Run Rd - 2.1 miles west of Barton

Coordinates: 39°31'54.10"N 79°1'57.48"W

Owner/Contact: BTC Development

Number and Type of CCR Storage Units: 1 Structural fill

Accepted Materials (e.g. fly ash, gypsum): FBC Fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

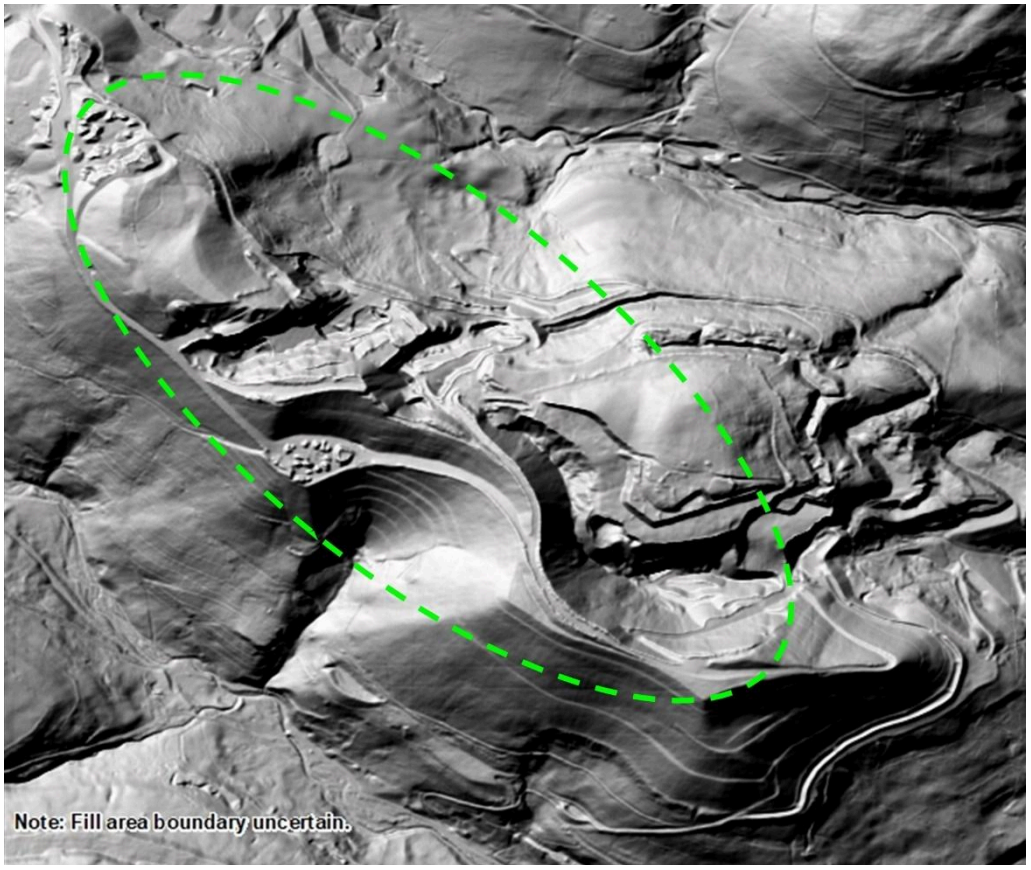
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

TRI-STAR MINING #3 COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-91-419. Alkaline fluidized bed combustion (FBC) fly ash and bottom ash from the Warrior Run Power Plant were used to reclaim a surface coal mine. Exact filling dates are uncertain, however, the 2022 CCB tonnage report for the Warrior Run Generating Station lists the "419 Coal Mine" as having received CCBs during 2022. The 419 Coal Mine is believed to correlate to the Tri-Star #3 mine.

Environmental Impacts: No information available.

Sources: Hooker, 2017; MDE, 2010; Maryland MERLIN Online

TRI-STAR MINING #4 COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: November 2020
Dashed line shows possible fill area based on surface morphology.

Site Name: Tri-Star Mining#4

State, County, City: Maryland, Allegany County

Site Address: Rt. 36 1.3 miles north of Westernport

Coordinates: 39°29'57.46"N 79° 2'3.34"W

Owner/Contact: Campbell Coal Co.

Number and Type of CCR Storage Units: 1 Structural fill

Accepted Materials (e.g. fly ash, gypsum): FBC Fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

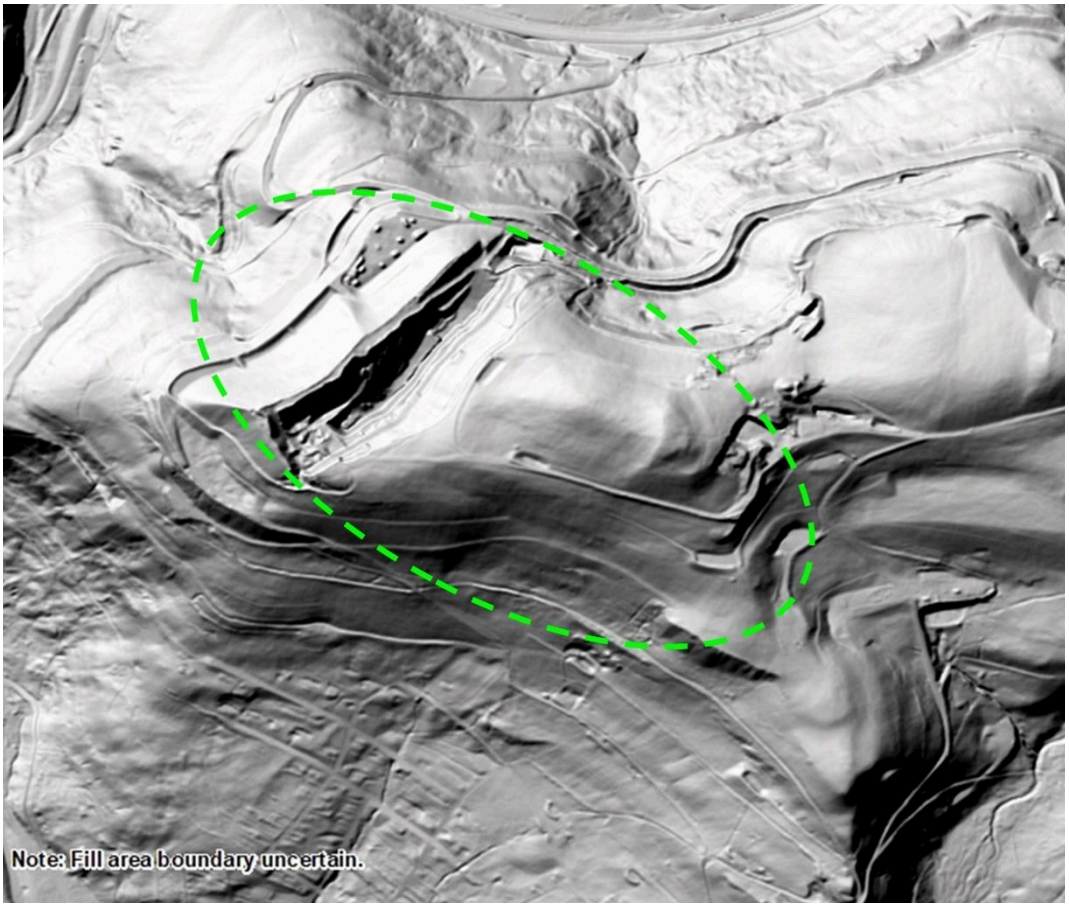
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

TRI-STAR MINING #4 COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-84-264. As of June 2017, the site status was listed as complete. Alkaline fluidized bed combustion (FBC) fly ash and bottom ash from the Warrior Run Power Plant were used to reclaim a surface coal mine. Exact filling dates are uncertain, however, MDE records indicate that filling activities were completed before 2017.

Environmental Impacts: No information available.

Sources: MDE, 2010; Maryland MERLIN Online

VINDEX ENERGY 4 COAL ASH DEPOSIT

Source: GoogleEarth, 2019; Image Date: November 2016.
Dashed line shows possible fill area based on surface morphology.

Site Name: Vindex Energy 4

State, County, City: Maryland, Allegany County

Address: Potomac Hollow Road - 0.2 miles east of Barton

Coordinates: 39°31'18.33"N 78°59'43.74"W

Owner: Cobra Mining, Inc.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

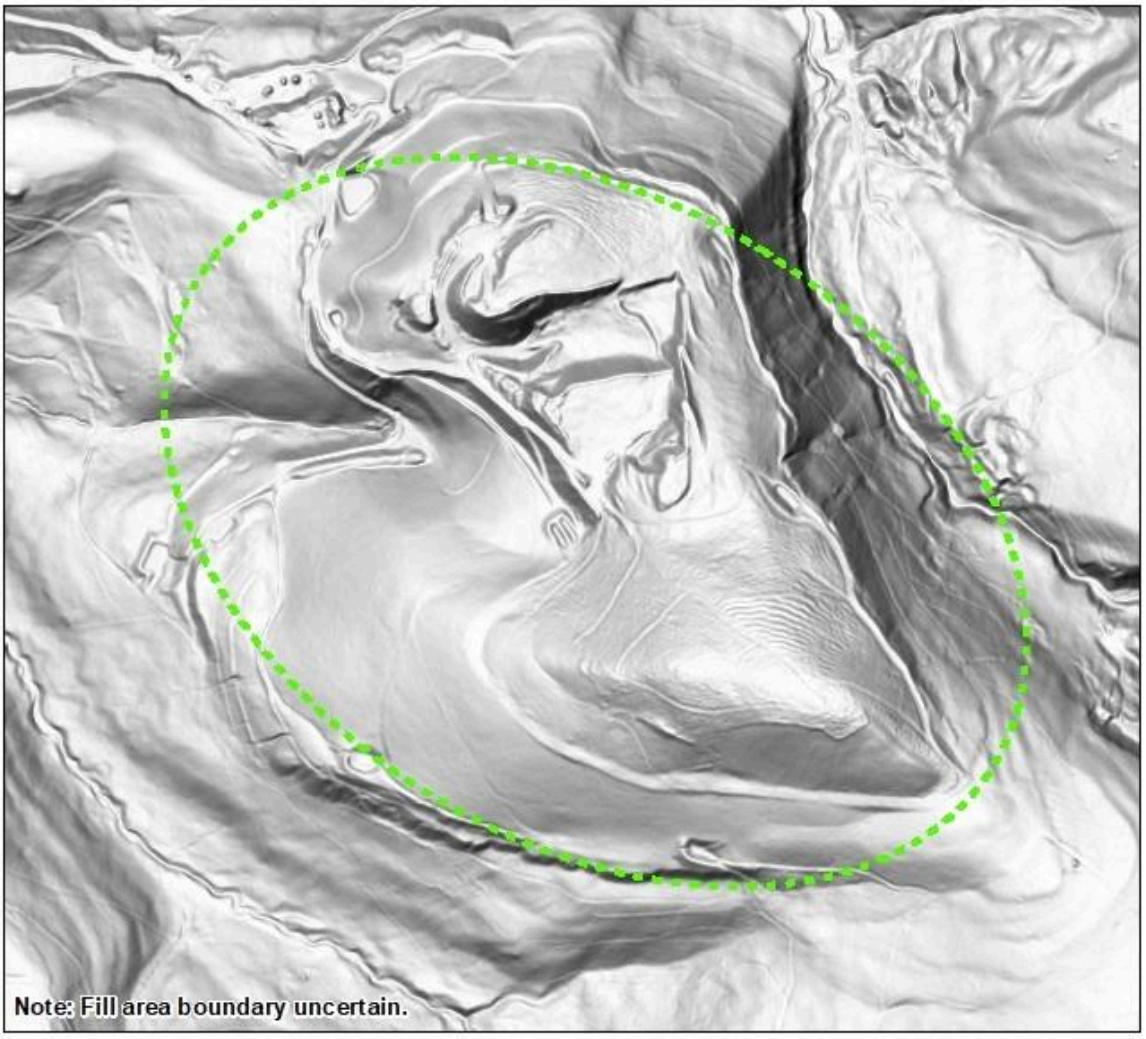
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

VINDEX ENERGY 4 COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-96-427. As of 2017, MDE lists the site status as complete. Alkaline fluidized bed combustion (FBC) fly ash and bottom ash were used to reclaim a surface coal mine. The period of active filling is uncertain but may have been between 2008 and 2009.

Environmental Impacts: No information available.

Sources: MDE, 2010; MDE, 2008-2023; Maryland MERLIN Online

VINDEX ENERGY 5 COAL ASH SITE

Source: GoogleEarth, 2019; Image Date: November 2016
Dashed line shows possible fill area based on surface morphology.

Site Name: Vindex Energy 5

State, County, City: Maryland, Allegany County

Address: Potomac Hollow Rd east of Barton

Coordinates: 39°31'50.95"N 78°58'50.04"W

Owner: Vindex Energy Corp.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC Fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

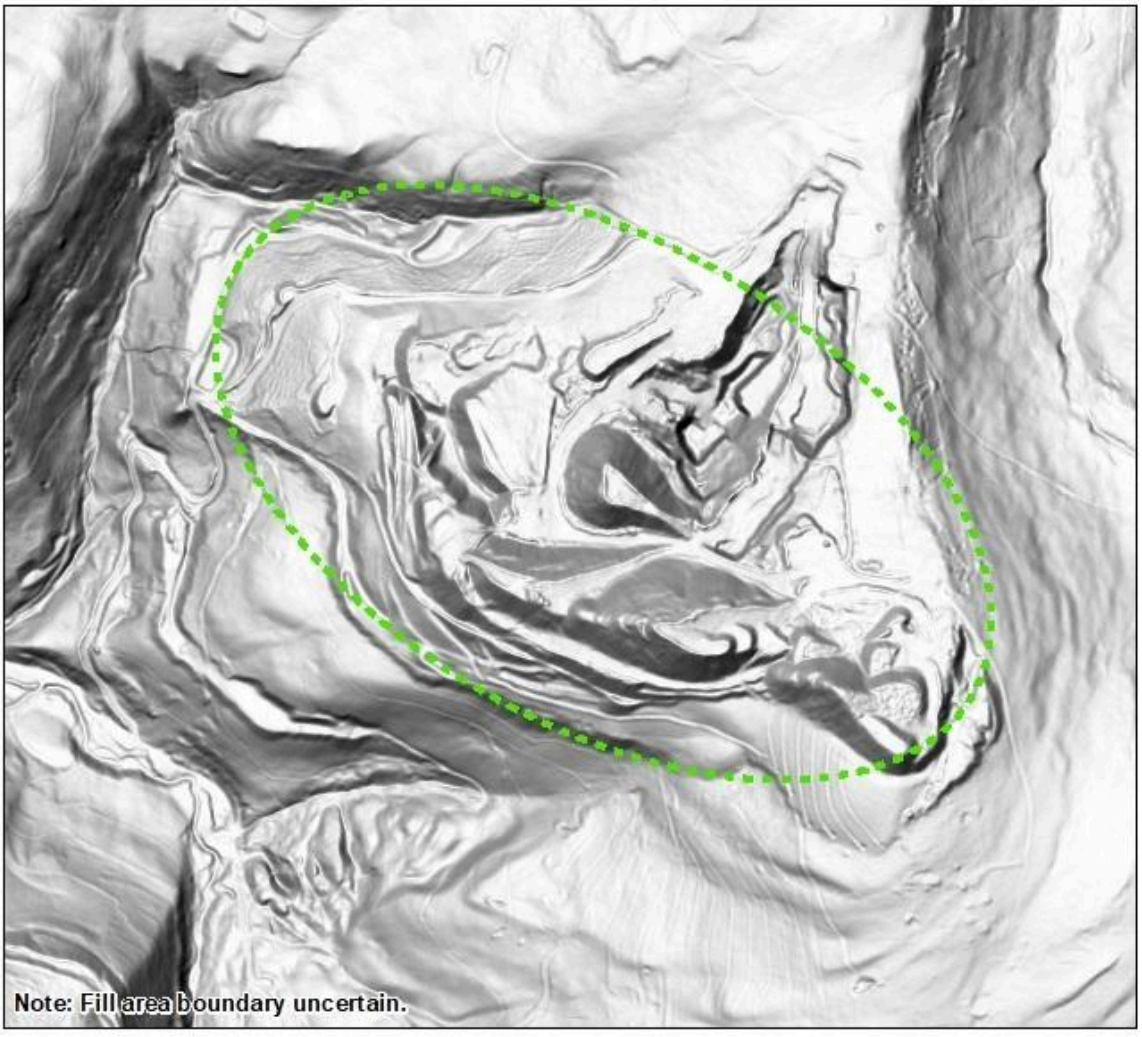
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

VINDEX ENERGY 5 COAL ASH SITE – LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-99-432. As of 2017, MDE lists the site status as active. Alkaline FBC fly ash and bottom ash from the Warrior Run Power Plant were used to reclaim a surface coal mine. The period of active filling is uncertain but may be 2008-2009.

Environmental Impacts: No information available.

Sources: Hooker, 2017; MDE, 2010; MDE, 2008-2023; Maryland MERLIN Online

VINDEX ENERGY CORP. – CARLOS COAL ASH SITE

Source: GoogleEarth, 2019; Image Date: November 2016
Dashed line shows possible fill area based on surface morphology.

Site Name: Vindex Energy Corp. Carlos

State, County, City: Maryland, Allegany County

Address: Legislative Rd 1.4 miles south of Midlothian

Coordinates: 39°37'21.69"N 78°58'30.92"W

Owner: Ritchie Jody L.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC Fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: October 2020

VINDEX ENERGY CORP. – CARLOS COAL ASH SITE – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-84-393. As of 2017, MDE lists the site status as active. The site is also listed on tonnage reports sent to MDE as having received CCBs from Warrior Run Power Plant in 2022. Alkaline FBC fly ash and bottom ash from the Warrior Run Power Plant were used to reclaim a surface coal mine.

Environmental Impacts: No information available.

Sources: ArchCoal, 2012; Coal Diver, 2020; MDE, 2008-2023; Maryland MERLIN Online; PPSP, 1982a

WALKER BROTHERS COAL ASH DEPOSIT

Source: GoogleEarth, 2019; Image Date: February 2020
Dashed line shows possible fill area based on surface morphology.

Site Name: Walker Brothers

State, County, City: Maryland, Allegany County

Address: West Side of Fair View Farm Rd., north of the intersection with Morgan Ct.

Coordinates: 39°37'58.15"N 78°57'55.52"W

Owner: Walker Land Holdings, LLC

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC Fly ash and bottom ash

Estimated Quantity of CCRs: 12,118 tons

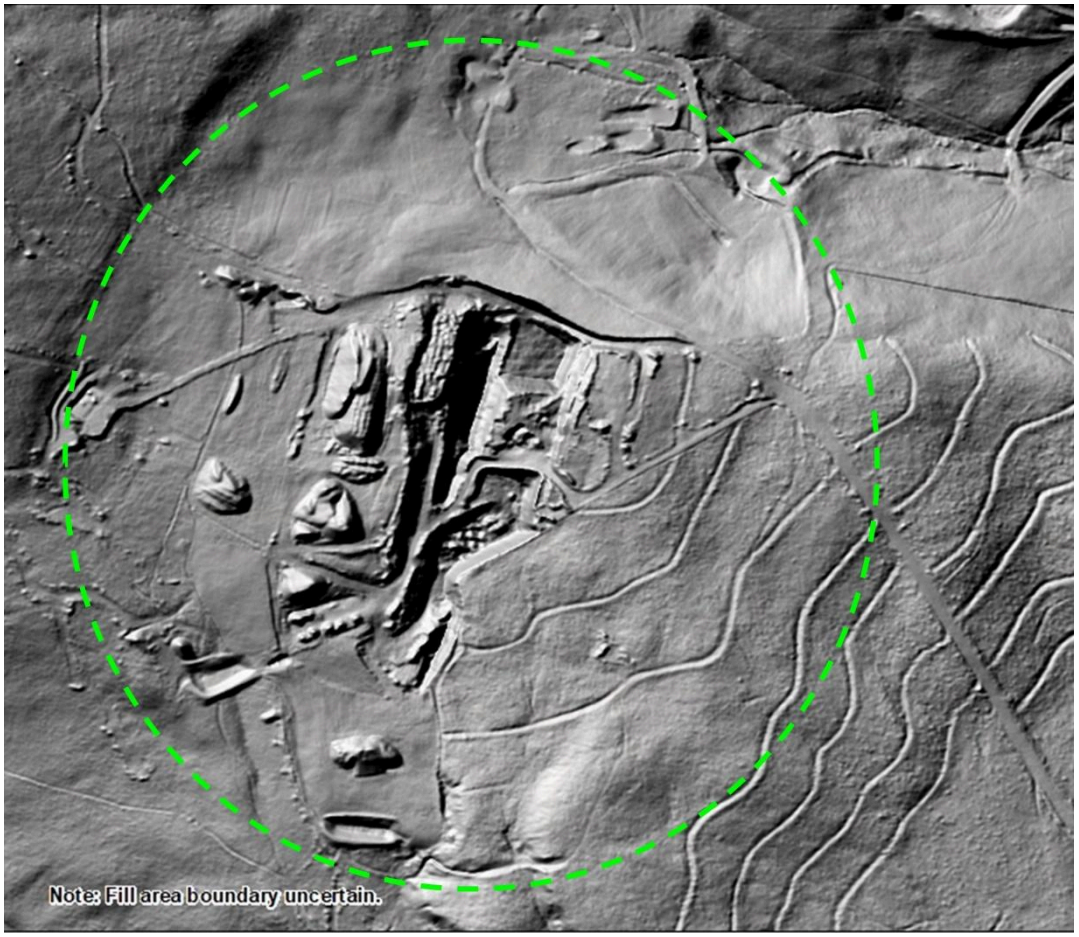
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

WALKER BROTHERS COAL ASH DEPOSIT - LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-07-453. As of 2017, MDE lists the site status as active.

Environmental Impacts: No information available.

Sources: Hooker, 2017

Anne Arundel County

BBSS COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: May 2023

Site Name: BBSS

State, County, City: Maryland, Anne Arundel County, Gambrills

Site Address: MD Rt. 3 between Evergreen Road and Waugh Chapel Road

Coordinates: 39°1'57.23"N, 76°41'11.86"W

Owner: BBSS, LLC; LOBS, LLC; Waugh Chapel R&D South, LLC

Number and Type of CCR Storage Units Onsite: 2 Structural fill

Accepted Materials (e.g. fly ash, gypsum): Class F fly ash

Estimated Quantity of CCRs: 4,000,000 tons (total) (MDE, 2010)

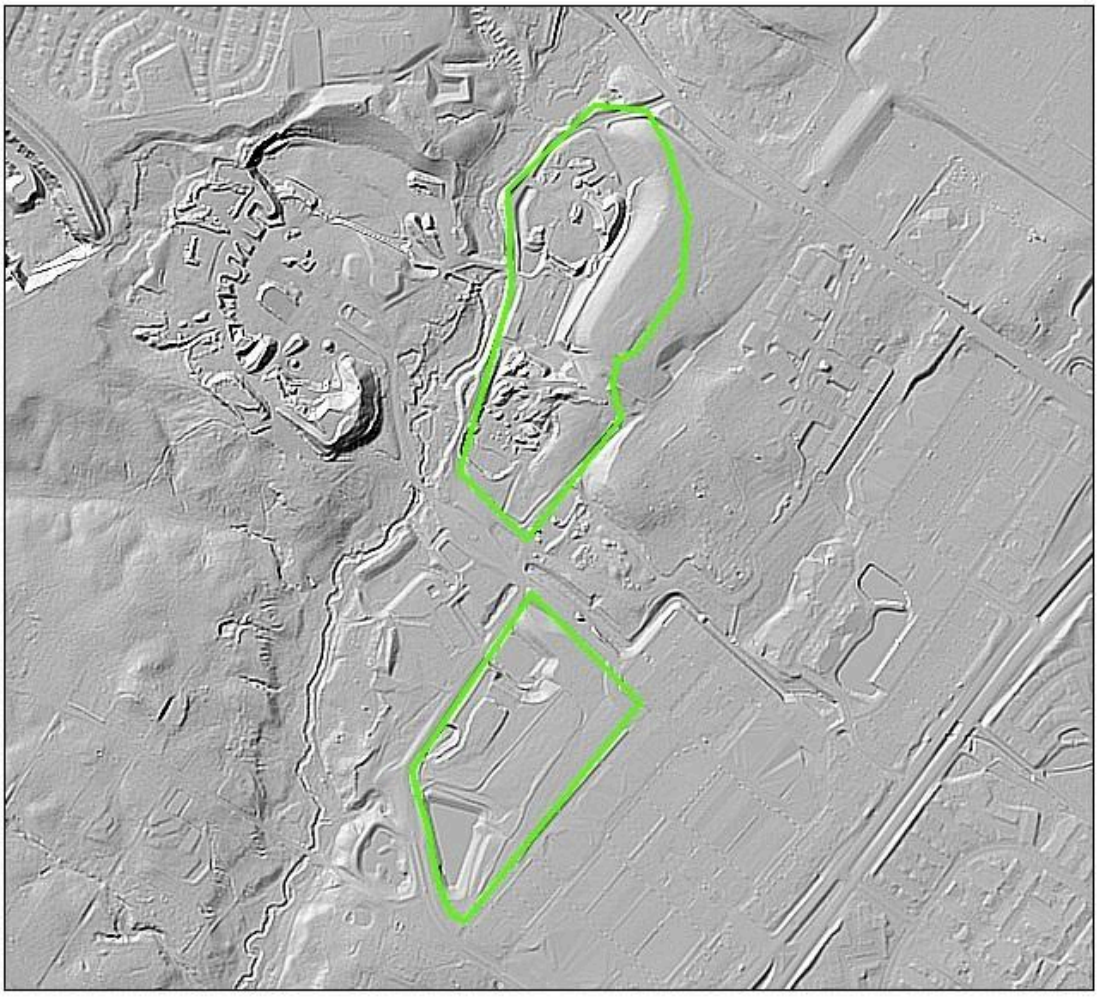
Estimated Area: Approximately 48 acres (Waugh Chapel Pit) and approximately 30 acres (Turner Pit)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

BBSS COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

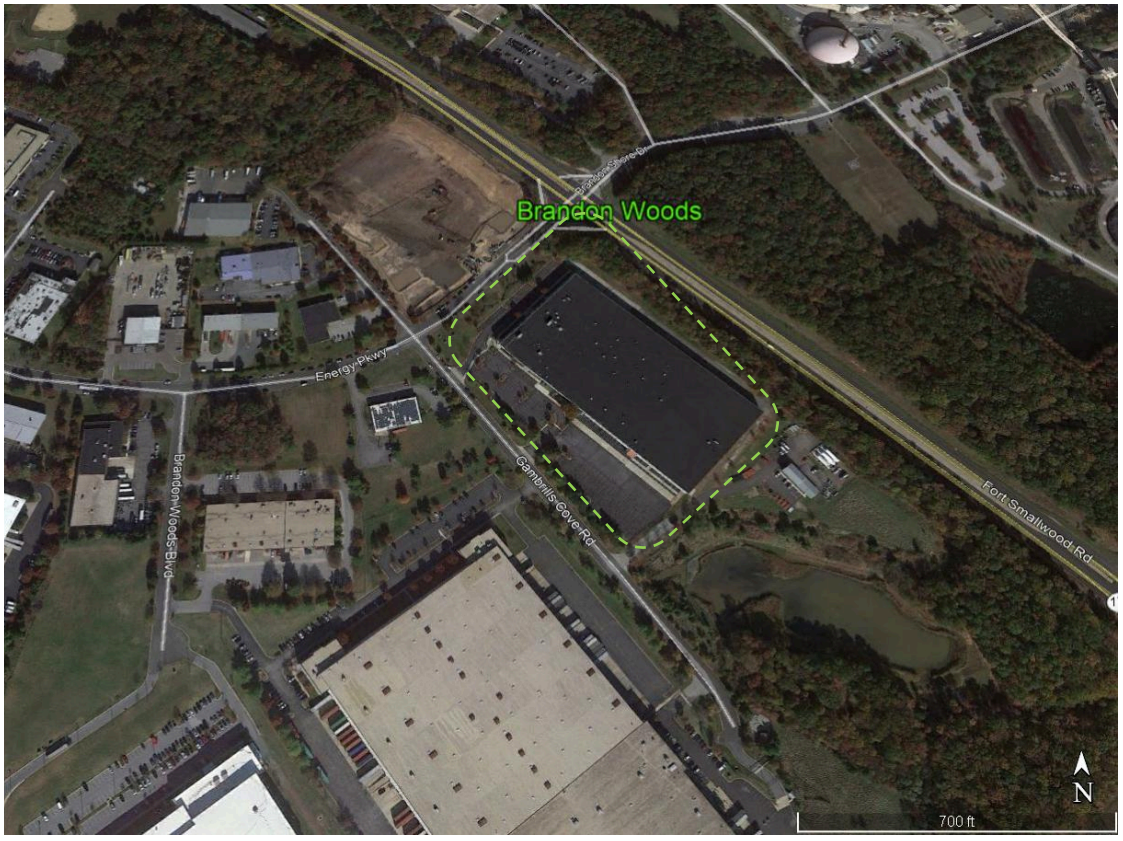
Notes

Site History: Class F fly ash from the Brandon Shores and H.A. The Wagner Power Plant was used to reclaim former sand and gravel pits between 1995 and 2007. The site is divided into two major sections: the Turner Pit and the Waugh Chapel Pit. The Turner Pit is a small portion of the BBSS site. The majority of the Turner Pit has been capped and is covered by a shopping center and parking lots, but satellite imagery indicates that the western portion of the Turner Pit is not redeveloped or vegetated. The Waugh Chapel Pit portion of the BBSS site has been capped but appears not to have been fully redeveloped.

Environmental Impacts: Groundwater impacts were identified in 2006-2007. Cleanup and penalties were ordered by MDE and Anne Arundel County in 2007. The lawsuit filed in 2007 by adjacent residents was settled in 2008. Groundwater monitoring and treatment are currently occurring. The BBSS site was one of 38 proven CCR damage cases identified by the EPA in the lead-up to publishing the 2015 CCR disposal rule.

Sources: MDE, 2010; PPRP, 2007; Maryland MERLIN Online

BRANDON WOODS COAL ASH DEPOSIT



Source: GoogleEarth, 2020; Image Date: November 2019
Dashed line shows possible fill area based on surface morphology.

Site Name: Brandon Woods

State, County, City: Maryland, Anne Arundel County, Shawville

Site Address: 7629 Gambrills Cove Rd., Curtis Bay

Coordinates: 39°10'32.43"N, 76°32'29.13"W

Owner: Brandon Woods, LLC

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials (e.g., fly ash, gypsum): Class F fly ash

Estimated Quantity of CCR: 3,500,000 tons

Estimated Area: 200 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

BRANDON WOODS COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: Class F fly ash from the Brandon Shores and H.A. Wagner Power Plants were placed at the site between 1982 and 1993. CCR is believed to be approximately 10 feet thick across the site. Site cover consists of concrete, asphalt, landscaping, and a 351,620 square-foot slab-on-grade warehouse used for overflow and distribution. Part of the CCR is likely under Solley Rd., due to road widening completed on the Brandon Woods side around 1996.

Environmental Impacts: Groundwater monitoring was performed from 1981 through at least 1997. Reports on the site were prepared before, during, and after the placement of CCR. A VCP application for the site was filed in 2014 (resolution uncertain). A Phase II investigation was performed in 2014, it included an evaluation of the cap materials and a survey by the Wildlife Heritage Service. Cap material thickness was found to be variable across the site with a higher permeability than anticipated. The WHS survey resulted in site activity restrictions due to a colony of Least Terns nesting on the building.

Sources: MDE, 2010; PPER, 1994; Siegel, 1996

JOY-BOEHM COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: April 2022
Dashed line shows possible fill area based on surface morphology.

Site Name: Joy/Boehm Landfill

State, County, City: Maryland, Anne Arundel, Crownsville

Site Address: 1373 St. Stephens Church Rd., Crownsville, MD

Coordinates: 39° 0'46.73"N, 76°37'34.64"W

Owner: Boehm, Lois

Number and Type of CCR Storage Units Onsite: 1 Landfill (exact location not mapped in available resources)

Accepted Materials (e.g., fly ash, gypsum): Industrial waste, tires, CCRs of unspecified type (likely fly ash and bottom ash)

Estimated Quantity of CCR: Unknown

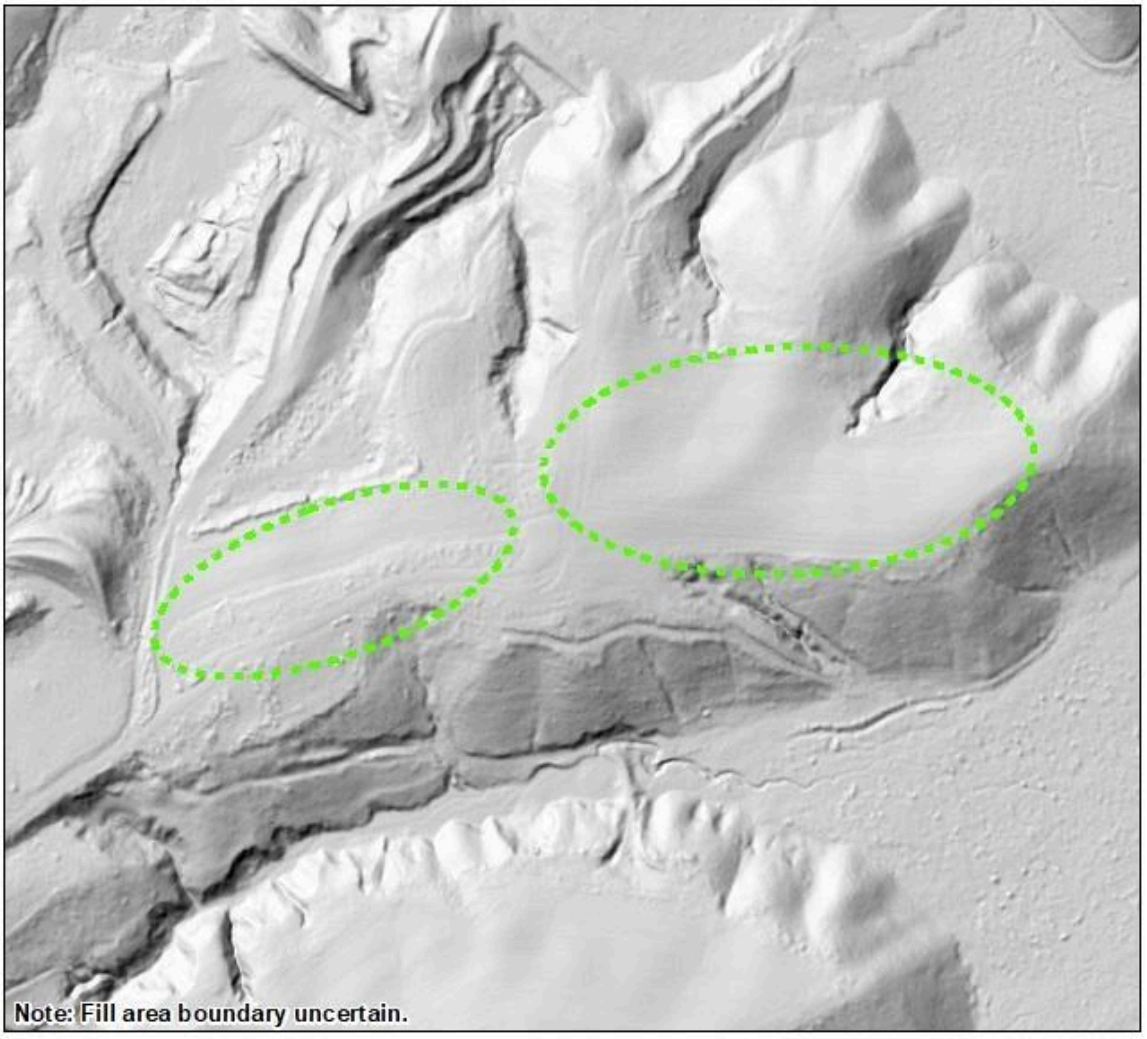
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

JOY-BOEHM COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on site morphology.

Notes

Site History: The landfill was permitted to receive various industrial wastes in the mid-1970s until it was closed through state enforcement in the mid-1980s. CCRs are believed to have been used as structural fill and to have been placed in a clay-lined industrial portion of the landfill beginning in the late 1970s until 1985.

Environmental Impacts: Monitoring wells are present onsite. MDE filed a lawsuit for tire cleanup in 2010.

Sources: MDE, 2010; Jackson, 2012; Barr, 2012

MILLERSVILLE LANDFILL COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: April 2022
Dashed line shows possible fill area based on surface morphology.

Site Name: Millersville Landfill

State, County, City: Maryland, Anne Arundel County, Millersville

Site Address: 389 Burnes Crossing Road, Millersville, MD

Coordinates: 39° 5'31.53"N, 76°40'6.30"W

Owner: Anne Arundel County

Number and Type of CCR Storage Units: The number of cells containing CCR is unknown.

Accepted Materials (e.g., fly ash, gypsum): Class F fly ash, municipal waste

Estimated Quantity of CCBs: 64,000 cubic yards

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

MILLERSVILLE LANDFILL COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: Class F fly ash from Brandon Shores and Wagner Power Plants was disposed of at this municipal landfill. The site is still an active municipal landfill as of 2021 however, CCR disposal is no longer occurring. The exact cells in which CCRs were disposed of are uncertain; they may be within closed portions of the landfill.

Environmental Impacts: Groundwater monitoring is currently occurring under MDE municipal landfill requirements.

Sources: MDE, 2010

SOLLEY ROAD COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: May 2023

Site Name: Solley Road Site

State, County, City: Maryland, Anne Arundel County, Glen Burnie

Address: 7890 Solley Road, Glen Burnie, MD

Coordinates: 39°09'28.91"N 76°34'19.18"W

Owner: BFI Waste Systems of North America

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials (e.g., fly ash, gypsum): Class F fly ash, commercial and industrial wastes and sludges

Estimated Quantity of CCR: Unknown

Estimated Area: 53 Acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

SOLLEY ROAD COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Fly ash from the Wagner Power Plant was disposed of at the site from 1965 through 1975. From 1963 to 1970 municipal and industrial wastes were burned at the site. In 1973, Browning Ferris Industries purchased the site and began landfilling the east area. The west fill area was closed in 1977 and the east fill area closed in 1980.
A portion of the east fill area operated as a secure hazardous waste facility from 1980 to 1982. The entire site is closed at this time.

Environmental Impacts: Various environmental studies have been performed at the site. A 1981 site investigation identified elevated levels of chromium, manganese, and several organic compounds in groundwater. A leachate collection system was installed in 1991. In 1993, a TCE plume was identified at the site and a groundwater extraction system was installed in response. EPA issued a Corrective Action Permit in 1991 and a Final Remedy was issued in July 2012.

Sources: PPSP, 1982a; MDE, BFI Fact Sheet; EPA, 2012a; EPA, 2020a; Maryland MERLIN Online

WAGNER POWER PLANT COAL ASH DEPOSITS

Source: GoogleEarth, 2020; Image Date: May 2023

Site Name: Wagner Power Plant

State, County, City: Maryland, Anne Arundel County, Curtis Bay

Site Address: Wagner Station Rd. Curtis Bay

Coordinates: 39°11'14.08"N 76°32'16.36"W and 39°10'50.16"N 76°31'49.41"W

Owner: Raven FS Property Holdings, LLC

Number and Type of CCR Storage Units Onsite: 2 Structural fills

Accepted Materials (e.g. fly ash, gypsum): Class F fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

WAGNER POWER PLANT COAL ASH DEPOSITS – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: An investigation in 1982 indicated that onsite disposal of Class F fly ash and bottom ash occurred between 1980 and 1982; it is unknown whether filling continued beyond 1982. Wagner Site 1 is described as being along the railroad that is adjacent to the power plant. A windshield survey performed on 26 July 2017 confirmed that about 60% of the Wagner Site 2 is paved, the remainder vegetated. Of particular note was a vegetated wetlands-like ravine within this area. The presence of old railroad tracks was also confirmed.

Environmental Impacts: No information was available.

Sources: PPSP, 1982a; Hoyt, 2017; Maryland MERLIN Online

Baltimore City

CHERRY HILL COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: May 2023

Site Name: Cherry Hill Site

State, County, City: Maryland, Baltimore City

Site Address: Northwest quadrangle where 895 meets West Patapsco Ave.

Coordinates: 39°14'36.55"N 76°36'52.64"W

Owner: Individual small parcels on the western side all have different owners. Eastern vegetated areas are listed as part of Middle Branch and Reedbird Park and owned by the Mayor & City Council, some larger parcels in the western area are listed as being owned by the Housing Authority.

Number and Type of CCR Storage Units: 1 Landfill

Accepted Materials (e.g., fly ash, gypsum): Fly ash, bottom ash, domestic waste

Estimated Quantity of CCR: Unknown

Estimated area: 250 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

CHERRY HILL COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Fly ash and bottom ash from the Westport, Gould Street, and Wagner Power Plants were placed at the site during the 1950s and early 1960s. By 1982, it was reported that housing had been built over a portion of the site containing CCR and that an active solid waste disposal facility was still operating adjacent to the Patapsco River.

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

COFFIN POINT COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: April 2022

Site Name: Coffin Point Site

State, County, City: Maryland, Baltimore County, Dundalk

Address: 4330 Broening Hwy.

Coordinates: 39°13'56.92"N 76°30'15.41"W

Owner: State of Maryland (Highway Administration)

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

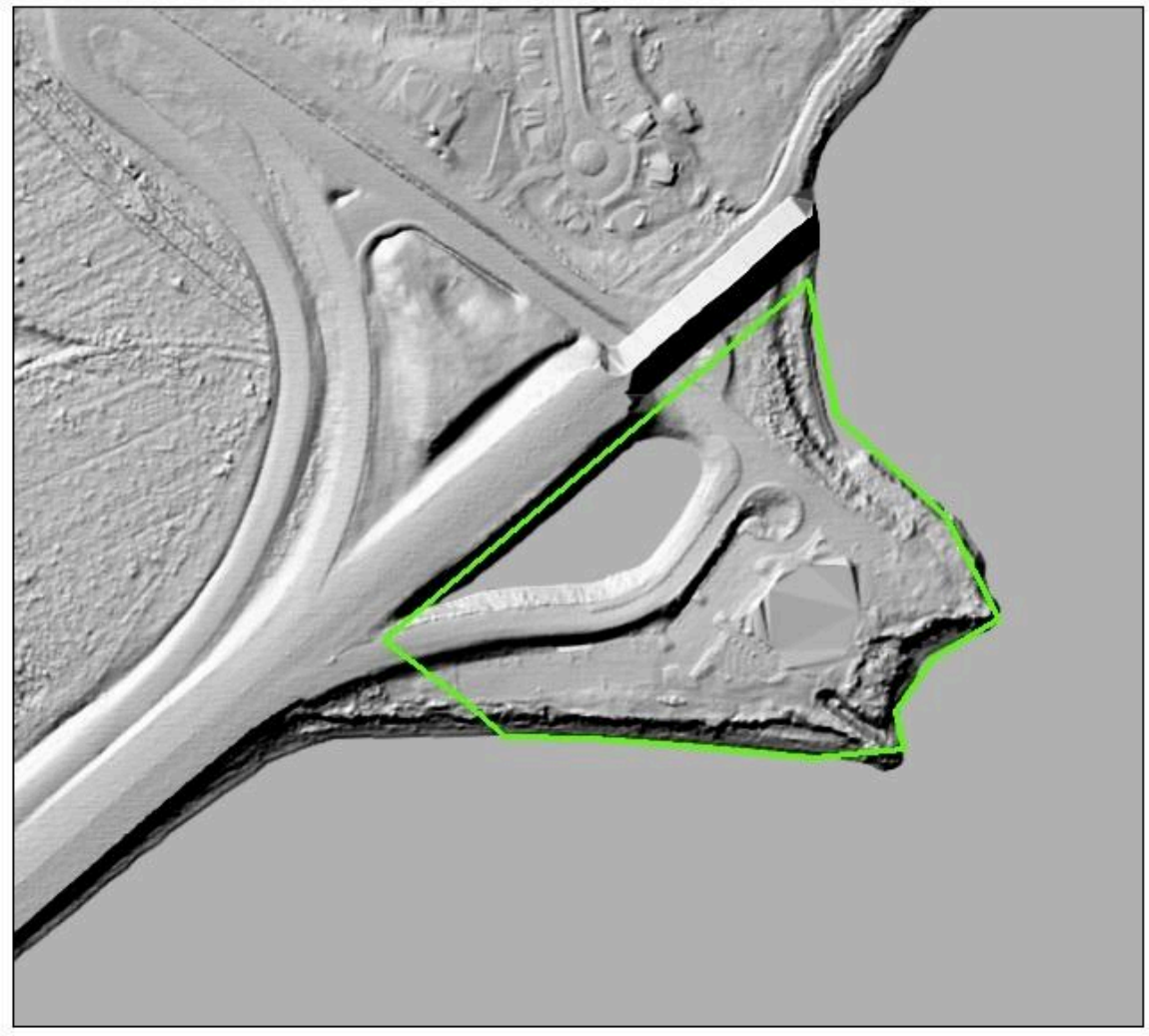
Estimated Area: Approximately 8 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

COFFIN POINT SITE COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Class F fly ash and bottom ash from the Riverside Power Plant were placed at the site during the early 1950s. While the quantity of CCR placed at the site is not known, PPSP, 1982a refers to this as a relatively small fill site.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

FORT ARMISTEAD COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: May 2023

Site Name: Fort Armistead Lot 15 Industrial Landfill

State, County, City: Maryland, Baltimore City

Site Address: 3601 Fort Armistead Rd., Baltimore

Coordinates: 39°11'59.16"N: 76°32'18.33"W

Owner: Raven Lot 15, LLC

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Class F fly ash, Class C fly ash, bottom ash, FGD material

Estimated Quantity of CCRs: 710,600 tons (As of 2017)

Estimated Area: 75 acres

Beneficial Use Projects: None

CCR Compliance Website: https://www.talenenergy.com/ccr-rule-compliance-data-information/

Last Update: November 2023

FORT ARMISTEAD COAL ASH DEPOSIT– LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

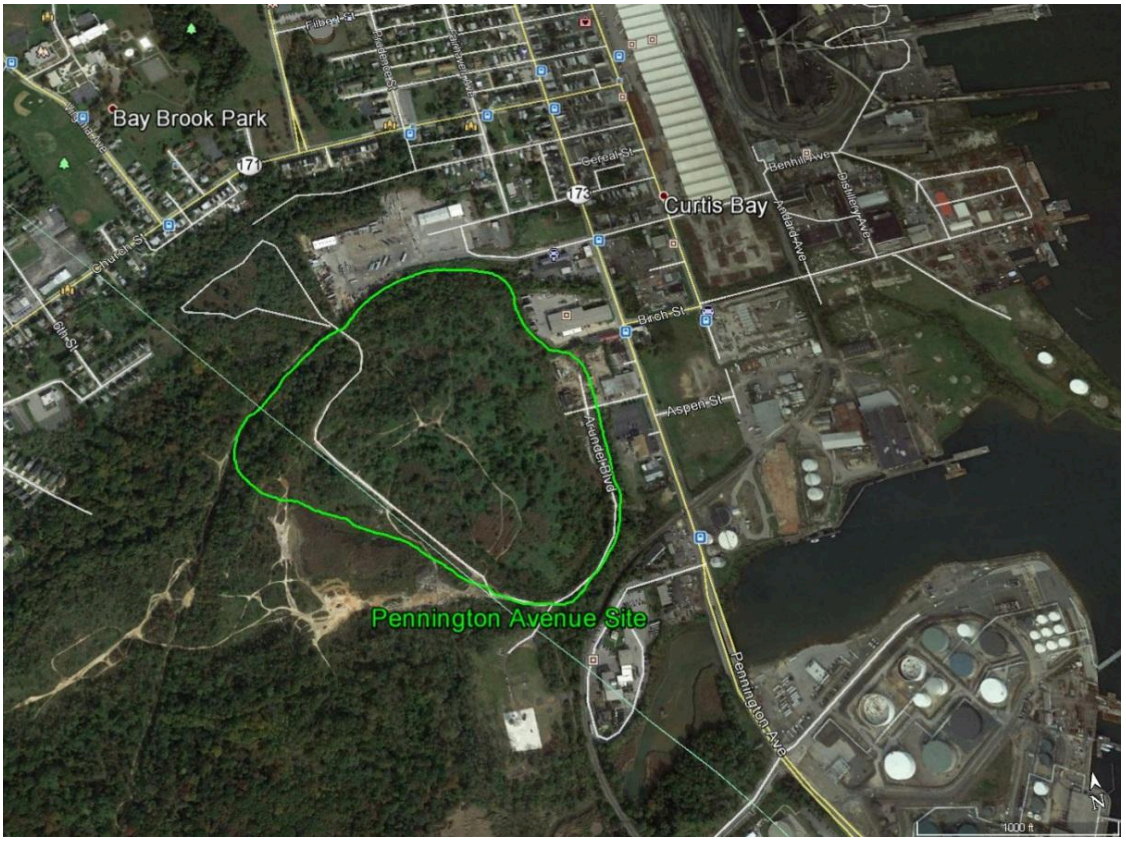
Notes:

Site History: Landfill is permitted under MDE permit #2018-WIF-0653. Disposal of CCRs at the site began in 2011. The landfill is active as of 2020. The landfill has historically received CCRs from the Brandon Shores, H.A. Wagner, and C.P. Crane Power Plants. The overall capacity of the landfill is 6.3 million cubic yards.

Environmental Impacts: The landfill was constructed in compliance with Maryland state requirements for CCR disposal as of 2010 (including synthetic liner and leachate collection system). Groundwater monitoring is performed in compliance with state and federal regulations.

Sources: MDE, 2008-2023; MDE, 2020b; Talen Energy, 2020a

PENNINGTON AVENUE COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: October 2018

Site Name: Pennington Avenue Site

State, County, City: Maryland, Baltimore City

Site Address: 1501 Aspin St., Baltimore, MD

Coordinates: 39°13'3.32"N 76°35'29.38"W

Owner: Mayor & City Council

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Class F fly ash,

Estimated Quantity of CCRs: Unknown

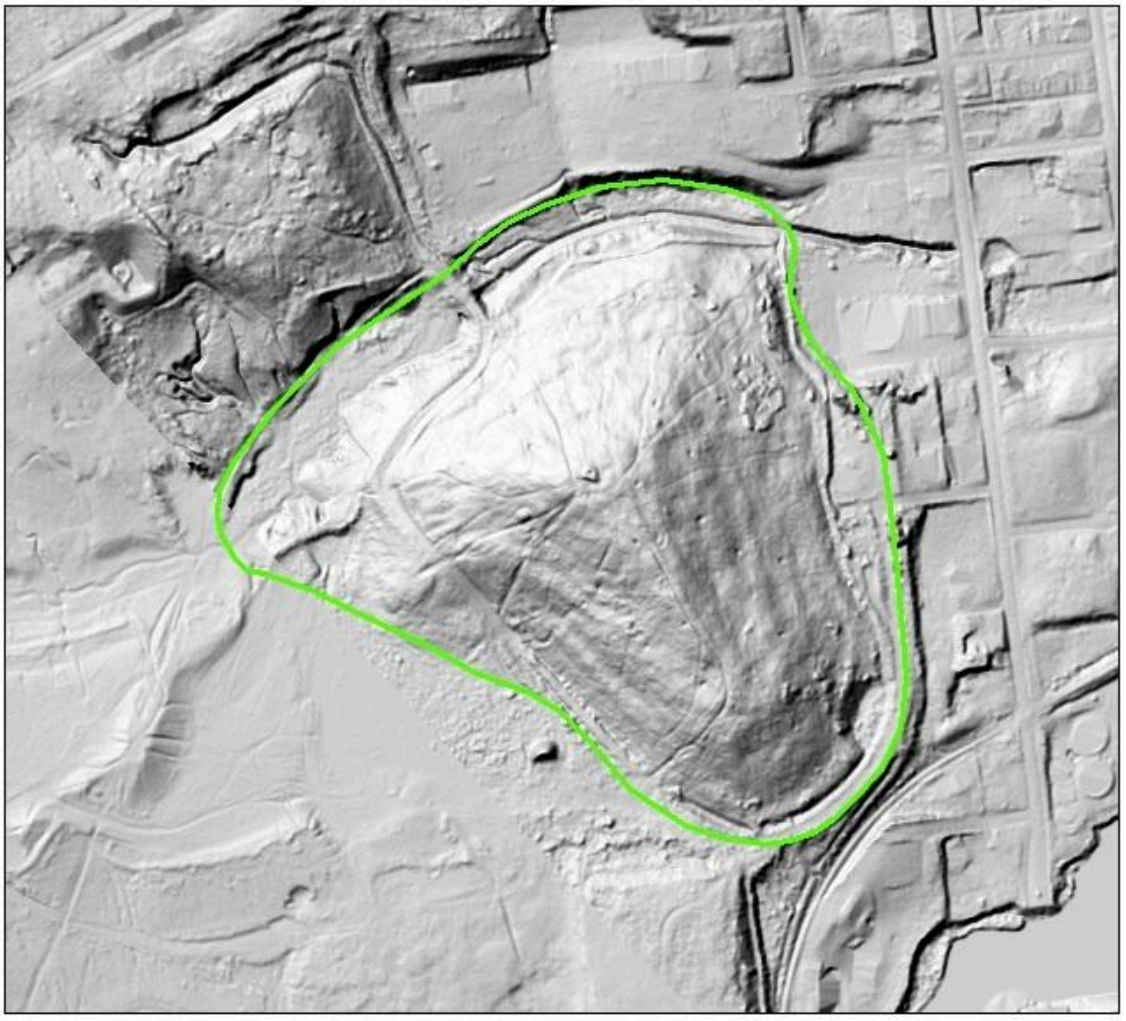
Estimated Area: 68 Acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

PENNINGTON AVENUE COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: A clay mine operated at the site from the 1950s into the 1970s. MDE 2009a indicates that filling activities occurred between the closure of the clay mine and the beginning of municipal landfill operation in 1976, which lasted until the landfill closed in 1981. PPSP, 1982a reports that fly ash from the Gould Street, Westport, and Wagner Power Plants was placed at the site during the 1960s and that, as of the preparation of that report, the site was an active landfill.

Environmental Impacts: A 1997 investigation by MDE identified slightly elevated levels of metals in the sediment and soil and slightly elevated levels of metals and volatile organic compounds in groundwater beneath the site. EPA reviewed the available data and in 1998 issued a No Further Remedial Action Plan status letter. A 2007 Phase I site assessment for the property identified recognized environmental conditions associated with the previous use as a landfill.

Sources: MDE, 2009a; PPSP, 1982a; Maryland MERLIN Online

QUARANTINE ROAD COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: October 2018

Site Name: Quarantine Road Site

State, County, City: Maryland, Baltimore City

Site Address: 5901 Quarantine Road, Curtis Bay, MD 21226

Coordinates: 39°12'28.28"N 76°33'17.19"W

Owner: Mayor & City Council of Baltimore

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Industrial waste, municipal waste, designated hazardous wastes, and class F fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: 85 Acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

QUARANTINE ROAD COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Fly ash from the Wagner Power Plant was placed at the site between 1968 and 1975. The landfill stopped receiving waste in 1979 and was capped in 1984. The landfill primarily accepted commercial and industrial solid wastes and sludges, fly ash was mixed with sludges used as a cover along Quarantine Road. The landfill was closed and capped in 1984. Note that there is an active municipal landfill adjacent to this site to the west (6100 Quarantine Road).

Environmental Impacts: A leachate collection and treatment system was initially constructed in 1980 but dismantled in 1983 and 1984. An investigation performed by NUS in 1984 determined that groundwater beneath the landfill contained low to moderate levels of cyanide, arsenic, and other organic and inorganic contaminants. During the last site inspection in 1985, no leachate seeps were identified. Leachate is currently collected and taken off-site for treatment and disposal. EPA recommended that the site be given a No Further Remedial Action Planned status.

Sources: PPSP, 1982a; MDE, 2014a; Maryland MERLIN Online

REED BIRD ISLAND COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: October 2022

Site Name: Reed Bird Site

State, County, City: Maryland, Baltimore City

Site Address: Northeast quadrant where 895 meets West Patapsco Ave.

Coordinates: 39°9'54.44"N 76°41'8.57"W

Owner: Mayor & City Council

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Incinerator ash, domestic waste, demolition debris, fly ash, and bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: 18 Acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

REED BIRD COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: The fact sheet for this site indicates that it was historically connected with the Cherry Hill Park site, which lies to the west. Before filling activities, the site was part of a waterway bounded by a marsh. The area was filled in with incinerator ash and landfill disposal in the area included domestic waste as well as demolition debris. Fly ash and bottom ash from the Wagner, Gould Street, and Westport Power Plants were placed at the site during the 1960s. All disposal activities at the site ceased in 1997.

Environmental Impacts: Site investigations in 1983 and 1992 identified elevated lead in groundwater and sediment and low levels of PCBs in soil. Following a site review in 1990, MDE recommended that EPA archive the site.

Sources: PPSP, 1982a; MDE, 2014c; Maryland MERLIN Online

THOMAS COVE COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: April 2022

Site Name: Thomas Cove Site

State, County, City: Maryland, Baltimore City

Site Address: 5501 Quarantine Road, Baltimore, MD 21226

Coordinates: 39°12'27.97"N 76°32'46.83"W

Owner: State of Maryland

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Fly ash, chrome ore waste, lime-containing waste

Estimated Quantity of CCRs: Unknown

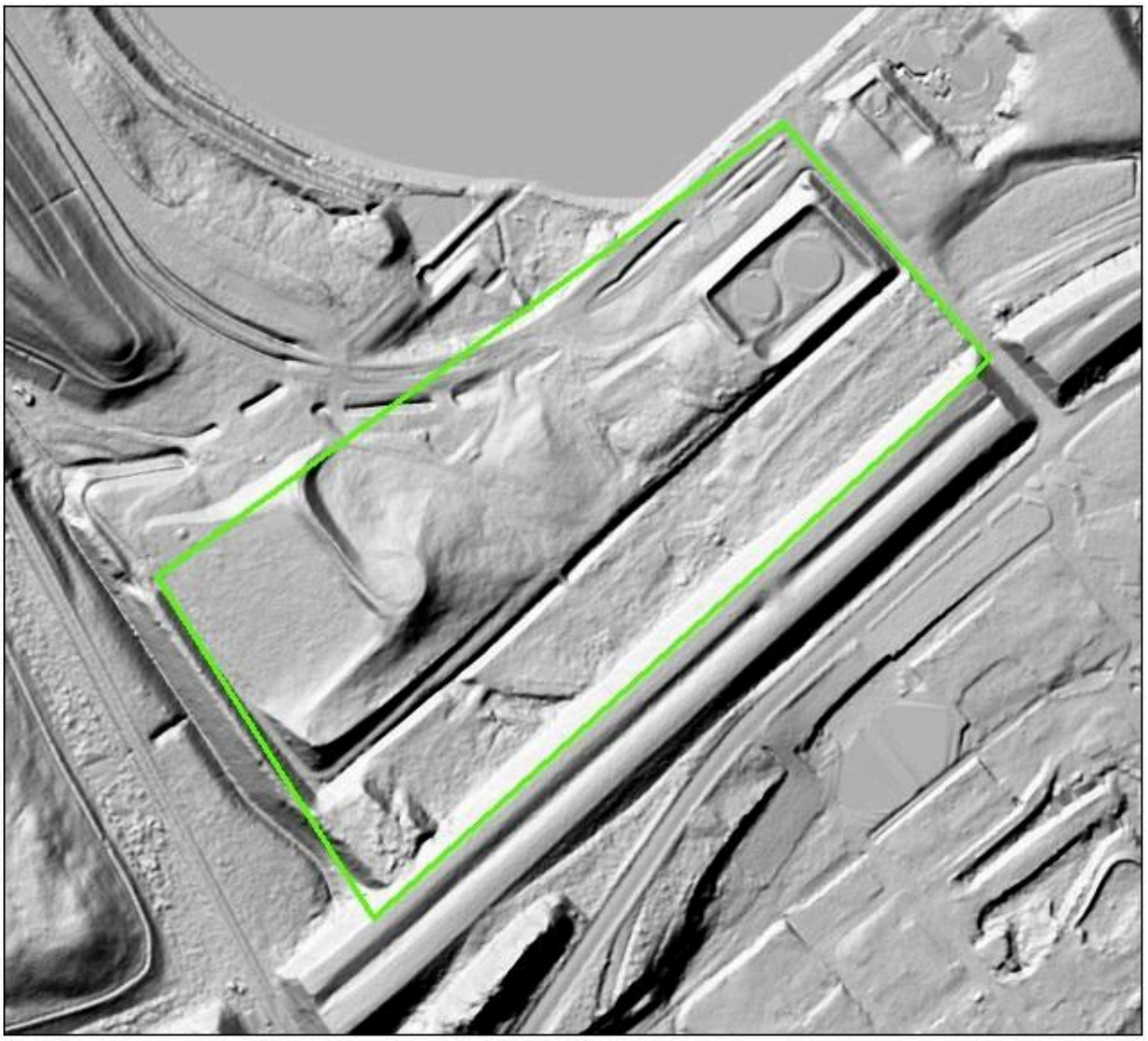
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: none

Last Update: November 2023

THOMAS COVE COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Fly ash from the Wagner Power Plant was placed at the site in 1979. Map available at EPA, 2020 indicates that this site overlaps with the Hawkins Point Hazardous Waste Landfill.

Environmental Impacts: None available for the Thomas Cove site specifically, broader information about the Hawkins Point site is available at EPA, 2020.

Sources: PPSP, 1982a; EPA, 2020b; Maryland MERLIN Online

WESTPORT POWER PLANT COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: March 2020
Dashed line shows possible fill area based on surface morphology.

Site Name: Westport Power Plant Sites 1 and 2

State, County, City: Maryland, Baltimore City

Site Address: 2101 Kloman St., Baltimore, MD

Coordinates: 39°15'57.76"N 76°37'40.52"W and 39°15'45.42"N 76°37'48.88"W

Owner: Westport Capital Development

Number and Type of CCR Storage Units Onsite: 2 Structural fill sites

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

WESTPORT POWER PLANT COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: Both sites received fly ash and bottom ash from the Westport Power Plant from approximately 1960 through 1970. The plant stopped burning coal in 1970. Westport Site 1: Ash was used to fill the cooling ponds and low areas adjacent to the plant; a parking lot was built over this area. Westport Site 2: Ash was transported by narrow gauge railroad to the edge of the plant property and landfilled. A windshield survey of both sites was performed on 26 July 2017, both sites were viewed from Kloman St., which runs along the western site boundary. Onsite observations combined with aerial imagery indicate that about 30% of Site 1 and 60% of Site 2 are paved. An abandoned railroad spur was visible and appeared to cross a corner of Site 2.

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

Baltimore County

BATTLE GROVE COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: April 2022

Site Name: Battle Grove Park

State, County, City: Maryland, Baltimore County, Dundalk

Address: New Battle Grove Circle

Coordinates: 39°15'45.19"N 76°28'3.37"W

Owner: There are multiple small parcels within site boundaries, but a large open parcel of Battle Grove Park is listed as owned by Baltimore County

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Approximately 15 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

BATTLE GROVE PARK COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

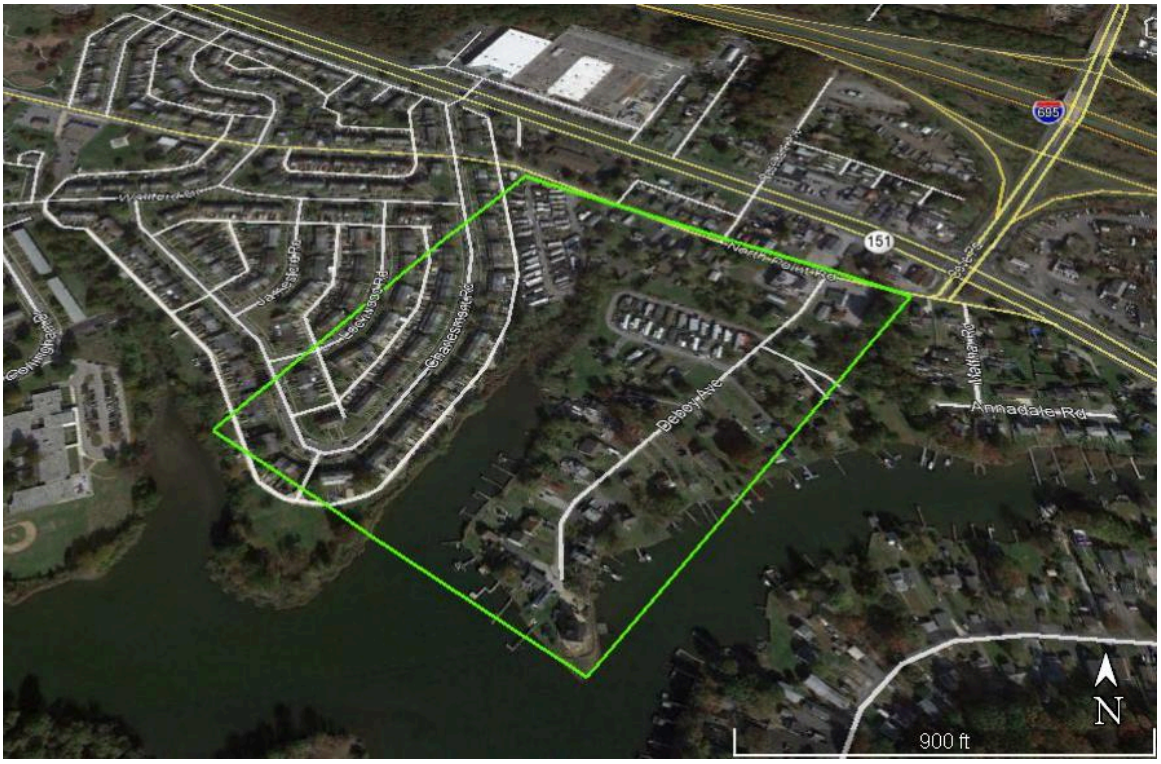
Notes

Site History: Class F fly ash and bottom ash from the Riverside Power Plant were placed at the site during the early 1950s. While the quantity of material placed is not known, PPSP, 1982a reports that this was a relatively small fill site.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

CHARLESMONT SITE COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: November 2019

Site Name: Charlesmont Site

State, County, City: Maryland, Baltimore County

Address: Southwest of North Point Road and Deboy Avenue

Coordinates: 39°16'27.78"N 76°28'46.52"W

Owner: Baltimore County, fill possibly also extends under multiple private homes.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Approximately 30 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

CHARLESMONT SITE COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Class F fly ash and bottom ash from the Riverside Power Plant were placed at the site during the early 1950s. While the quantity of CCR placed at the site is not known, PPSP, 1982 refers to this as a relatively small fill site.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

C.P. C RANE POWER PLANT COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: November 2019

Site Name: C. P. Crane Power Plant Site

State, County, City: Maryland, Baltimore County

Site Address: 1021 Carroll Island Road, Middle River, MD 21220

Coordinates: 39°19'33.34"N, 76°22'1.84"W

Owner: Bowleys Quarters Investments I LLC

Number and Type of CCR Storage Units Onsite: Unknown, likely one or more structural fills

Accepted Materials: Boiler Slag and fly ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

C.P. CRANE POWER PLANT COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes:

Site History: During the period between 1961 and 1980, most slag from the plant was sold, but some was disposed of on-site near the plant and along the railroad right-of-way. In 2010 the C.P. Crane Power Plant began using Powder River Basin coal, which meant that Class C fly ash was generated. This material was disposed of in off-site landfills. In 2018 the plant stopped burning coal and thus stopped producing CCR. The plant was demolished by implosion in August 2022.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

I695 SPARROW'S POINT OVERPASS COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: November 2019
Dashed line shows possible fill area based on surface morphology.

Site Name: I695 Sparrow's Point

State, County, City: Maryland, Baltimore County

Address: I-695 adjacent to the Former Sparrow's Point Steel Plant

Coordinates: 39°14'12.77"N 76°28'25.82"W

Owner: Maryland State Highway Administration

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash

Estimated Quantity of CCRs: 320,000 tons

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

I695 SPARROW'S POINT OVERPASS COAL ASH DEPOSIT
– LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: Class F fly ash from the Brandon Shores and HA Wagner Power Plants was used to construct embankments at the I695 overpass at Sparrow's Point. Filling activities occurred between 1996 and 1998.

Environmental Impacts: Groundwater data was collected before placement of CCR and both groundwater and pore water were monitored following completion of the construction project. A follow-up groundwater study was performed in 2014.

Sources: MDE, 2010; PPRP, 2004; PPRP, 2017a

NORRIS FARM COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: April 2022

Site Name: Norris Farm Site

State, County, City: Maryland, Baltimore County, Dundalk

Site Address: 101 Norris Lane, Dundalk

Coordinates: 39°17'11.34"N 76°28'44.64"W

Owner: Browning-Ferris Inc.

Number and Type of CCR Storage Units: 1 Landfill

Accepted Materials (e.g., fly ash, gypsum): Various municipal and industrial wastes (see below), fly ash, and bottom ash for a limited period.

Estimated Quantity of CCR: Unknown

Estimated Area: 230 acres (total landfill area)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

NORRIS FARM COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: The site was a sand and gravel operation before 1967 when the site was converted to a sanitary landfill. Municipal and industrial wastes including acids, bases, pesticides, organics, and commercial sludges were received at the facility. PPSP, 1982a indicates that fly ash and bottom ash from Riverside and Wagner Power Plants were placed at the site during portions of the 1960s and 1970s. The landfill was capped in 1990. October 2014, the aerial image showed no activity onsite. Beginning in February 2017 construction activity is visible in the center of the site. Activity continues through at least November 2019.

Environmental Impacts: EPA conducted a preliminary assessment of the site in 1980. Another site assessment was performed by NUS Corporation in 1986. Analytical results showed low levels of organic and inorganic groundwater contamination. In 1992, the EPA listed the site as "No Further Remedial Action Planned".

Sources: PPSP, 1982a; MDE, Norris Farm Landfill; Maryland Merlin Online

PATAPSCO FLATS COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: November 2023

Site Name: Patapsco Flats Site

State, County, City: Maryland, Baltimore County

Site Address: Southwest quadrant where 895 meets West Patapsco Ave.

Coordinates: 39°14'5.56"N 76°37'36.75"W

Owner: Baltimore County

Number and Type of CCR Storage Units: 1 Landfill

Accepted Materials (e.g., fly ash, gypsum): Fly ash, bottom ash, domestic waste

Estimated Quantity Unknown

Estimated Area: 260 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

PATAPSCO FLATS COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

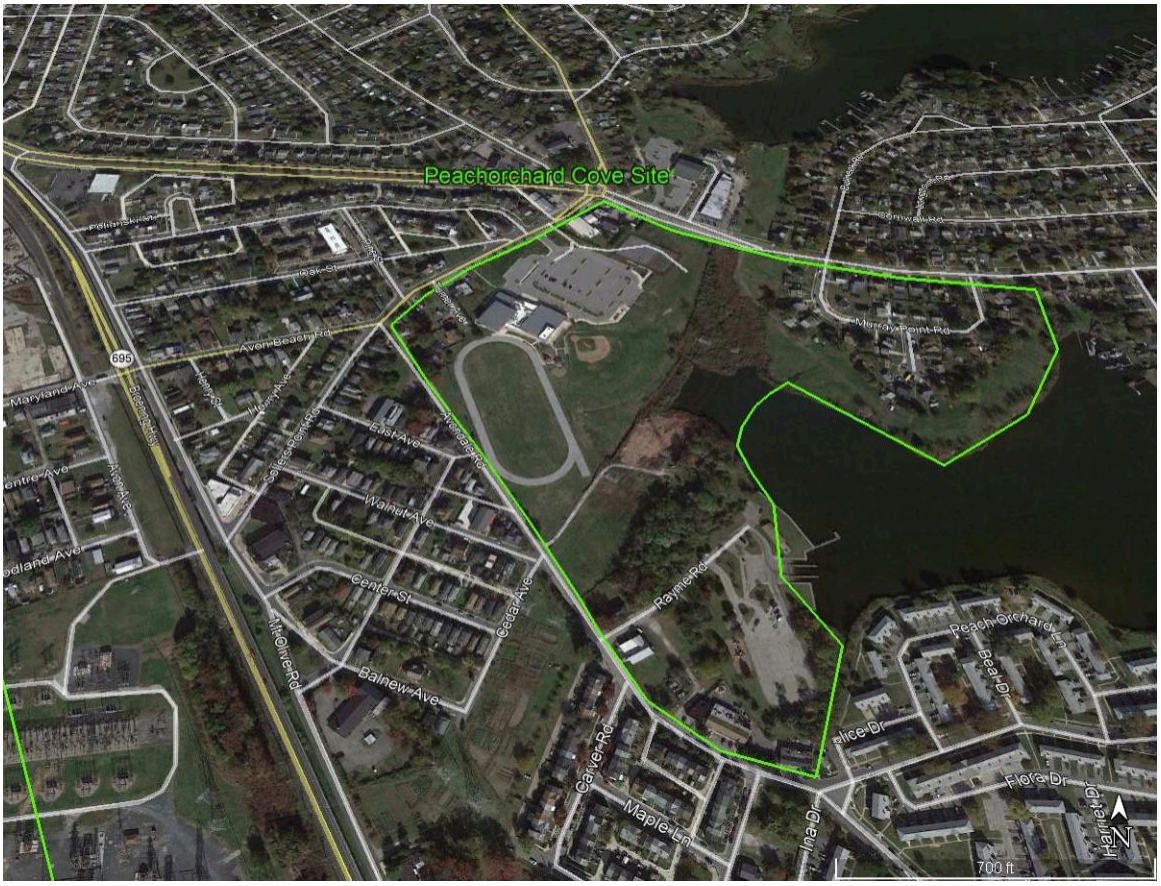
Notes

Site History: The 1982 report lists this as an inactive landfill and that fly ash and bottom ash from the Westport, Gould Street, and Wagner Power Plants were placed at the site intermittently from the 1950s into the 1960s. The site is listed in the 2009 MDE Historic Landfill Initiative also known as Reliable SLF and a site with no defined location or owner. Maryland MERLIN online lists the site as Southwest Area Park, owned by Baltimore County.

Environmental Impacts: No information available.

Sources: MDE, 2009b; PPSP, 1982a; Maryland MERLIN Online

PEACH ORCHARD COVE COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: November 2019

Site Name: Peach Orchard Cove Site

State, County, City: Maryland, Baltimore County, Baltimore

Site Address: 335 Sollers Point Rd.; Baltimore, MD
(multiple smaller individual addresses)

Coordinates: 39°14'35.74"N 76°30'26.53"W

Owner: Baltimore County; Our Lady of Lavang Roman Catholic Church;
multiple other private owners

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials (e.g., fly ash, gypsum): Fly ash and bottom ash

Estimated Quantity of CCR: Unknown

Estimated Area: 15 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

PEACH ORCHARD COVE COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Fly ash and bottom ash from the Riverside Power Plant were placed at the site during the 1950s and early 1960s.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

RIVERSIDE POWER PLANT COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: November 2019

Site Name: Riverside Power Plant Site

State, County, City: Maryland, Baltimore County, Dundalk

Site Address: 4000 Broening Hwy., Dundalk, MD

Coordinates: 39°14'17.21"N 76°30'52.23"W

Owner: Constellation Power Generator; Baltimore Gas & Electric (BGE)

Number and Type of CCR Storage Units Onsite: Unknown, likely one or more structural fills

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

RIVERSIDE POWER PLANT COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Some ash was disposed of in various portions of plant property during the early 1950s (PPSP, 1982a). A windshield survey was performed on 25 July 2017. The presence of buildings, above-ground storage tanks, and paved areas was confirmed. The southern portion of the site was not easily visible. Trucks owned by BGE were noted at the site. The area where CCRs had been placed could not be discerned.

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

ROSSVILLE INDUSTRIAL SITE COAL ASH DEPOSIT

Sources: GoogleEarth Pro; Image Date: November 2023
Dashed line shows possible fill area based on surface morphology.

Site Name: Rossville Industrial Park

State, County, City: Maryland, Baltimore County, Rosedale

Site Address: 9114-9200 and 9107-9201 Yellow Brick Rd. and left side of Lennings Lane

Coordinates: 39°20'49.86"N 76°28'2.43"W

Owner: Philly Elder, LLC

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash

Estimated Quantity of CCRs: 45,000 tons (MDE, 2010)

Estimated Area: 35 acres (MDE, 2013)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

ROSSVILLE INDUSTRIAL SITE COAL ASH – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes:

Site History: Class F fly ash from the C.P. Crane, Brandon Shores, and H.A. Wagner Power Plants were used at this site. BGE applied to the Maryland Department of Health (formerly the Dept. of Health & Mental Hygiene) in July 1982 for a permit to develop the site by reclaiming the former clay mine with CCRs. In Oct. 1982, the Baltimore County Dept. of Health issued a Special Waste Disposal Facilities Permit to dispose of fly ash at the site. MDE issued an Industrial Waste Disposal Permit to dispose of fly ash at the site in Jan. 1988. MDE issued a Pozzolan exemption for the disposal of coal ash at the site in Apr. 1988. This essentially voided previous permits by exempting the disposal of Pozzolan from waste regulations; however, BGE continued to monitor the site.

Environmental Impacts: Investigations of soil and groundwater impacts and the extent of CCRs were performed in 2008 and 2010. In 2011, the site was accepted into the MDE VCP program with proposed future use of restricted commercial/industrial use. According to Brownfields Master List April 2017, the site was still active with monitoring, though no active remediation was occurring.

Sources: MDE, 2010; MDE, 2013; MDE, 2020a

Charles County

FAULKNER FLY ASH STORAGE SITE COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: November 2023
Dashed line shows possible fill area based on surface morphology.

Site Name: Faulkner Fly Ash Storage Site

State, County, City: Maryland, Charles County, Faulkner

Site Address: 10200 Faulkner Road, Faulkner, MD 20664

Coordinates: 38°26'19.33"N 76°57'30.99"W

Owner: NRG

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCRs: 7 million cubic yards (MDE, 2010)

Estimated Area: 180 acres (Wheeler, 2013)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

FAULKNER FLY ASH STORAGE SITE COAL ASH DEPOSIT
– LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

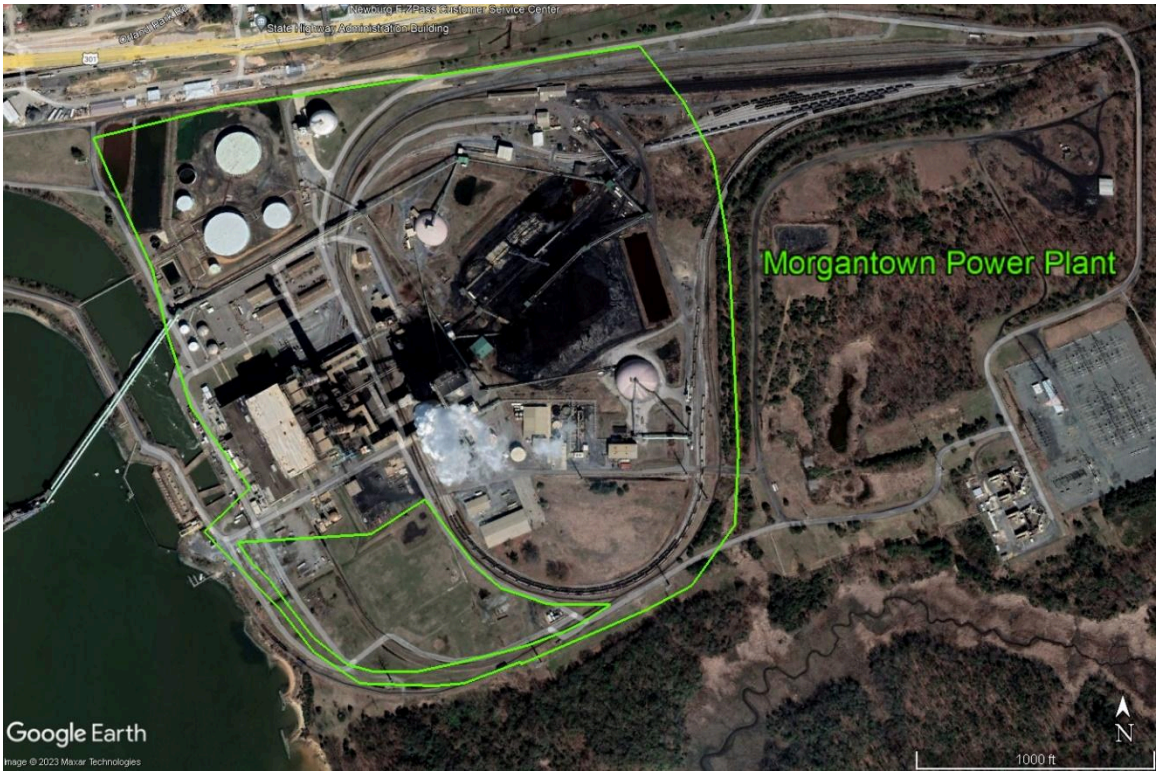
Notes:

Site History: Class F fly ash from the Morgantown Power Plant was disposed of at the site from 1975 until 2010.

Environmental Impacts: A report on site environmental aspects was published in 1983 (PPRP, 1983). A consent decree was issued in 2013 that settled lawsuits from the state and environmental groups.

Sources: MDE, 2010; PPRP, 1983; Wheeler, 2013

MORGANTOWN POWER PLANT COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: April 2022

Site Name: Morgantown Power Plant Site

State, County, City: Maryland, Charles County, Faulkner

Site Address: 12620 Crain Hwy, Newburg, MD 20664

Coordinates: 38°21'39.37"N 76°58'20.60"W

Owner: NRG

Number and Type of CCB Storage Units Onsite: Unknown, likely one or more structural fills

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCBs: Unknown

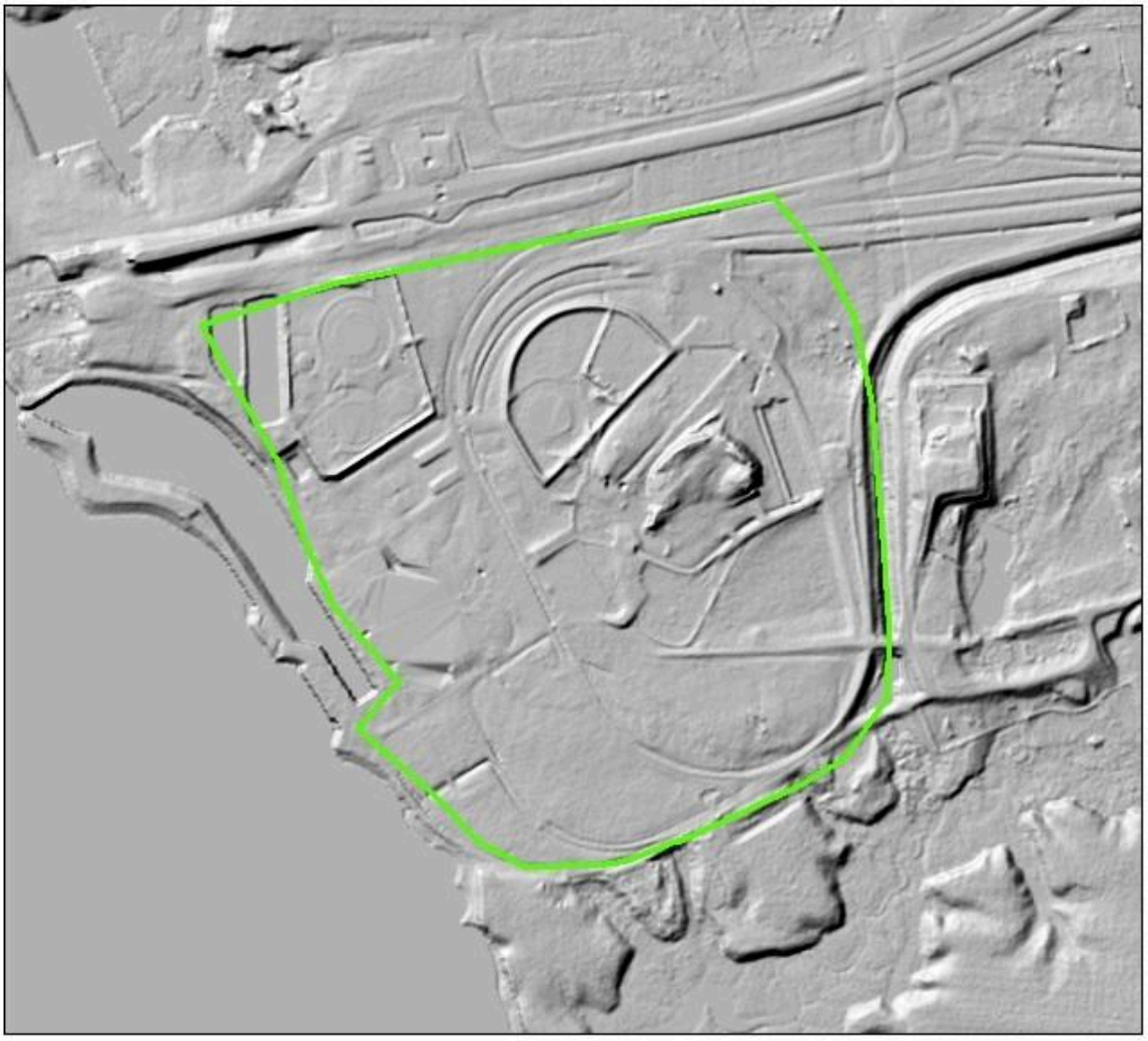
Estimated Area: Unknown

Beneficial Use Projects: None

CCB Compliance Website: None

Last Update: November 2023

MORGANTOWN POWER PLANT COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

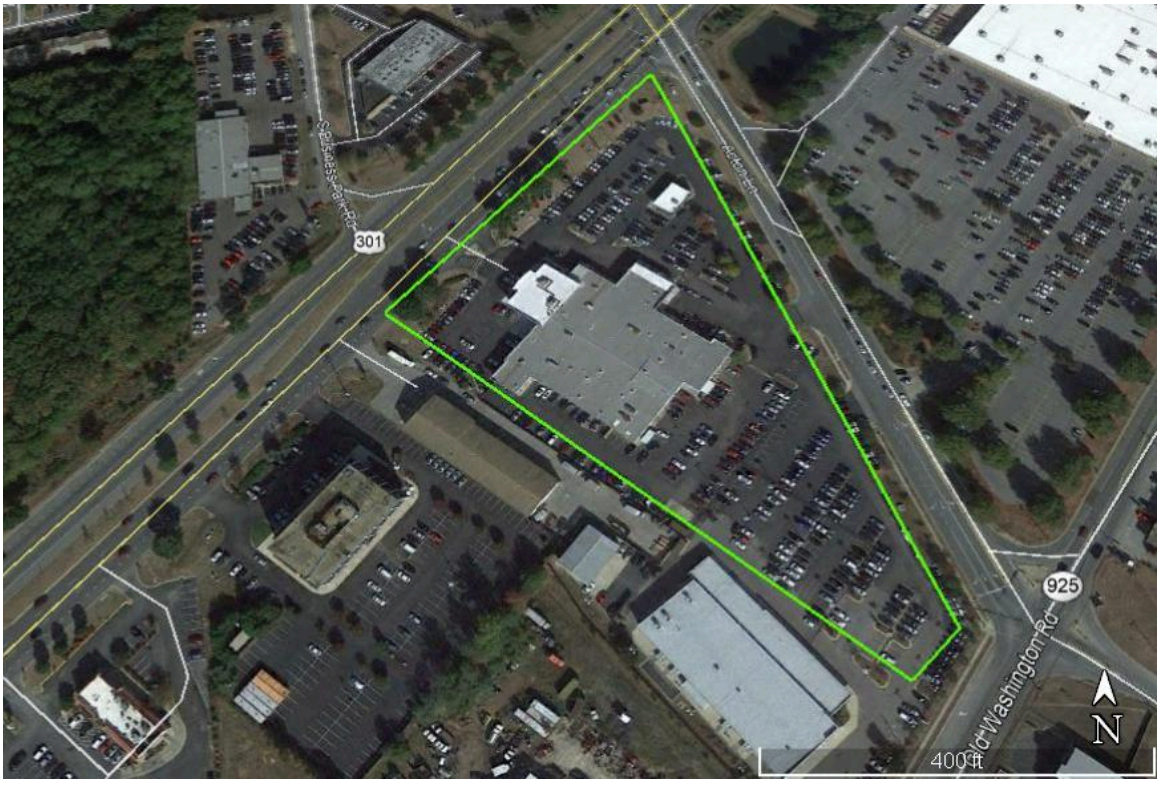
Notes

Site History: Small quantities of ash were co-disposed with dredge spoils in low areas adjacent to the Morgantown Power Plant during the early 1970s (PPSP, 1982). The plant stopped burning coal in June 2022.

Environmental Impacts: None available.

Sources: PPSS, 1982a; Knight, 2017; Maryland MERLIN Online; MDE, 2008-2023

WALDORF SITE COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: October 2019

Site Name: Waldorf Site

State, County, City: Maryland, Charles County, Waldorf

Address: 2600 Crain Hwy, Waldorf, MD 20601

Coordinates: 39°38'16.79"N 76°53'52.95"W

Owner: Waldorf Toyota (Kody Holdings, LLC)

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

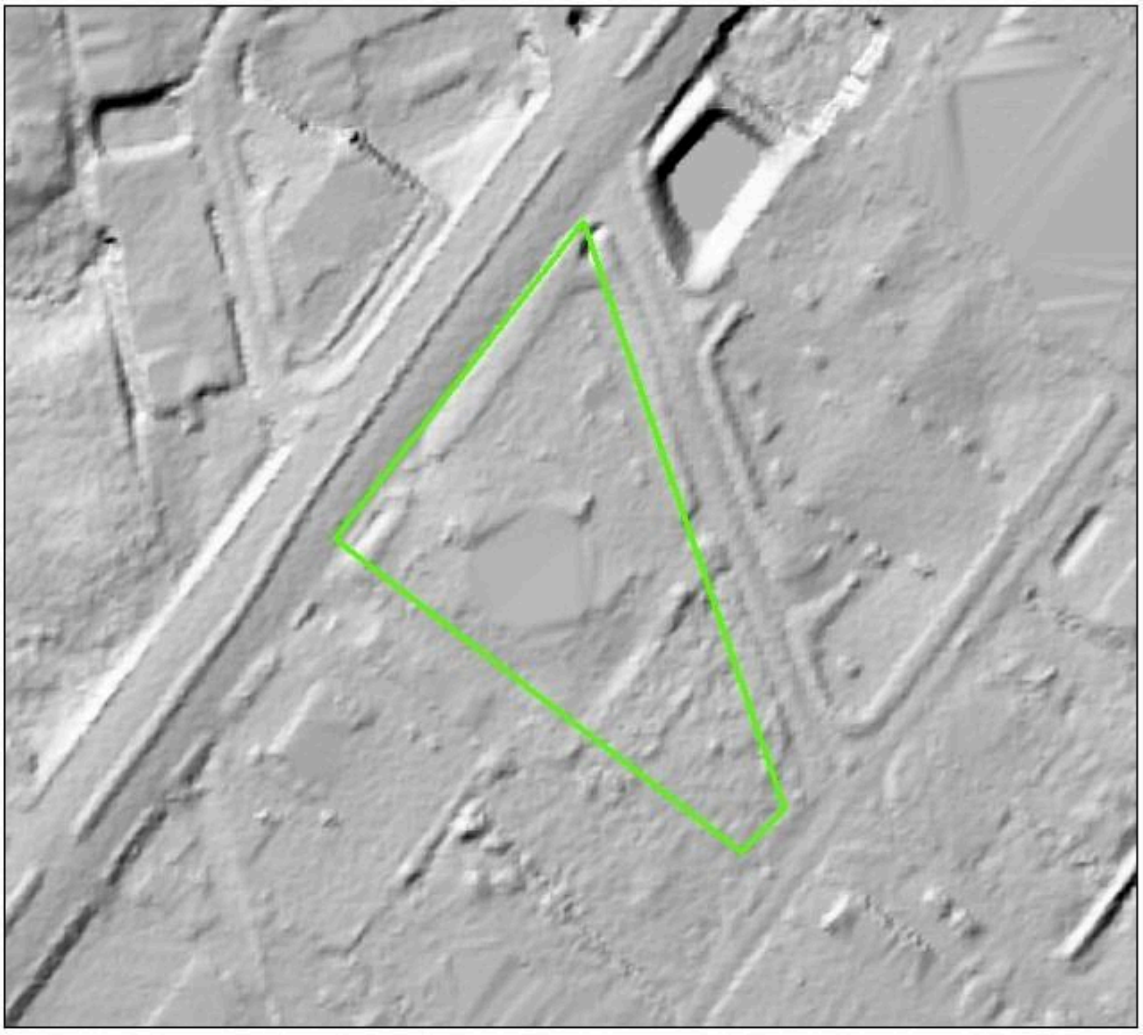
Estimated Area: Approximately 5 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

WALDORF SITE COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Class F fly ash and bottom ash from the Morgantown Power Plant were placed at the site during the early 1970s.

Environmental Impacts: Some EPA and MDE site records were identified that relate to the operation of an auto dealership, but no information was available regarding environmental impacts related to CCR at the site.

Sources: PPSP, 1982a; Maryland MERLIN Online

Dorchester County

VIENNA POWER PLANT COAL ASH DEPOSITS

Source: GoogleEarth Pro; Image Date: August 2023

Site Name: Vienna Power Plant Sites 1 and 2

State, County, City: Maryland, Dorchester County, Vienna

Site Address: Chapel of East Road, Vienna

Coordinates: 38°29'11.21"N 75°49'16.18"W and 38°29'2.93"N 75°48'46.66"W

Owner: Vienna Power Plant Site 1 – Vienna Power; Vienna Site 2 - Delmarva Power

Number and Type of CCB Storage Units Onsite: 1 or more structural fills;
1 closed surface impoundment

Accepted Materials: Class F fly ash

Estimated Quantity of CCBs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCB Compliance Website: None

Last Update: November 2023

VIENNA POWER PLANT COAL ASH DEPOSITS – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes:

Site History: The Vienna Power Plant stopped burning coal in 1972. Between 1950 and 1966, Class F fly ash is reported to have been sluiced to a settling basin onsite (Site 1), but no further details are given as to the exact location of the basin (PPSP, 1982). From 1966 to 1972, CCR was sluiced from the power plant to a diked area located on the east side of the Nanticoke River (Site 2). During that time, the majority of bottom ash was sold.

Environmental Impacts: Several environmental impact studies were published between 1982 and 1984. PPSP 1982b indicates that the diked area east of the Nanticoke River experienced multiple breaches during the period in which it received fly ash. There are no records of legal action, cleanup, or response actions related to environmental impacts.

Sources: PPSP, 1982a; PPSP, 1982b; Maryland MERLIN Online

Garrett County

ARJ CONSTRUCTION COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2020
Dashed line shows possible fill area based on surface morphology.

Site Name: ARJ Construction Site

State, County, City: Maryland, Garrett County

Address: West of Westernport Road

Coordinates: 39°30'44.96"N 79° 6'0.72"W

Owner: Moran Coal Company, Inc.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Between 68,690 and 180,000 tons

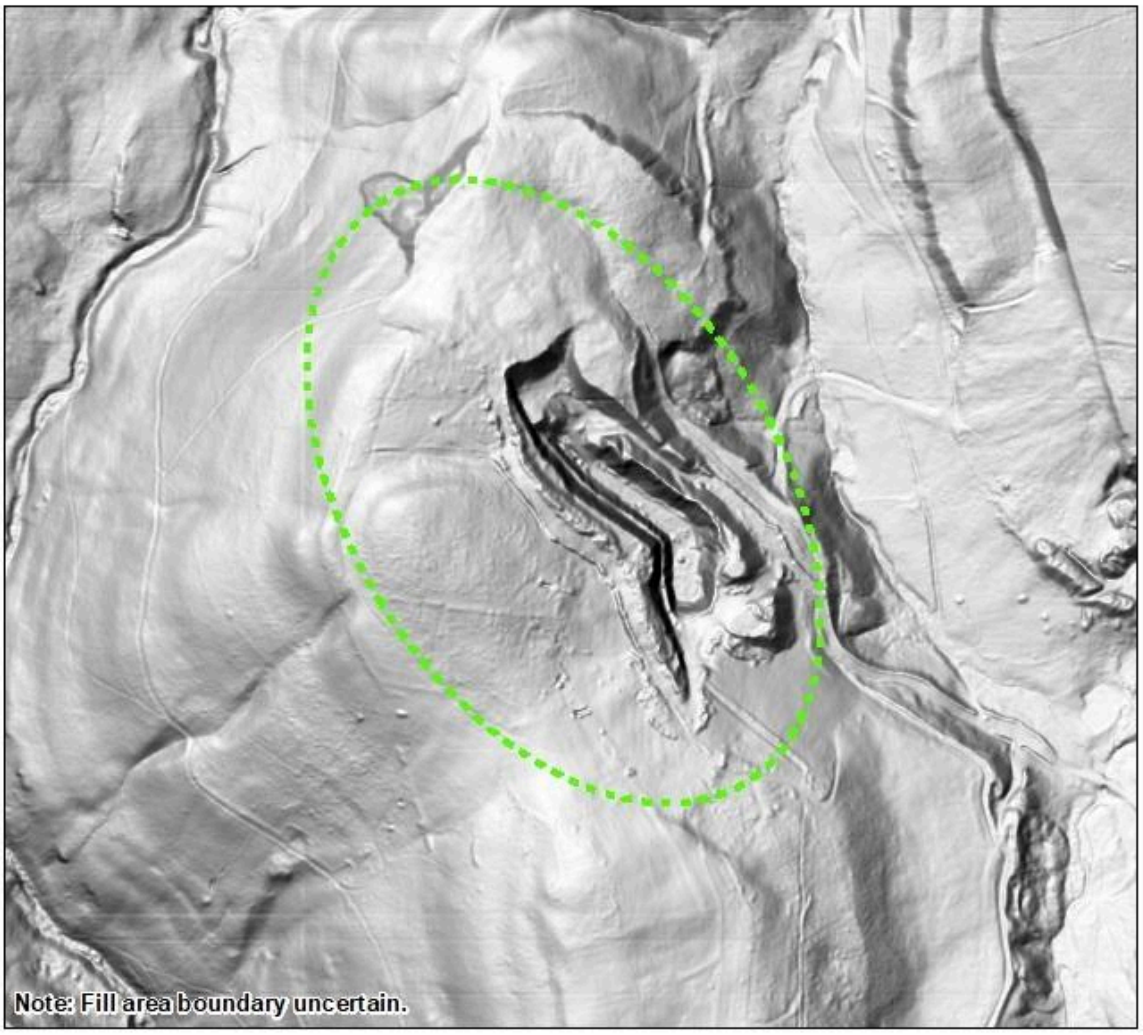
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

ARJ CONSTRUCTION COAL ASH DEPOSIT– LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-13-463, as of 2017, the MDE site status is listed as active.
The site is permitted to receive a maximum of 180,000 tons of alkaline FBC material from the Warrior Run Power Plant. As of 2017, 68,690 tons had been placed. Fill activities began in 2016.

Environmental Impacts: No information available.

Sources: Hooker, 2017

G&S COAL #1 COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2016
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Site Name: G&S Coal #1

State, County, City: Maryland, Garrett County

Address: Mt. Zion Road - 2.9 Miles SE of Rt. 135

Coordinates: 39°26'24.88"N 79°10'47.03"W

Owner: Savage Forest, LLC

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

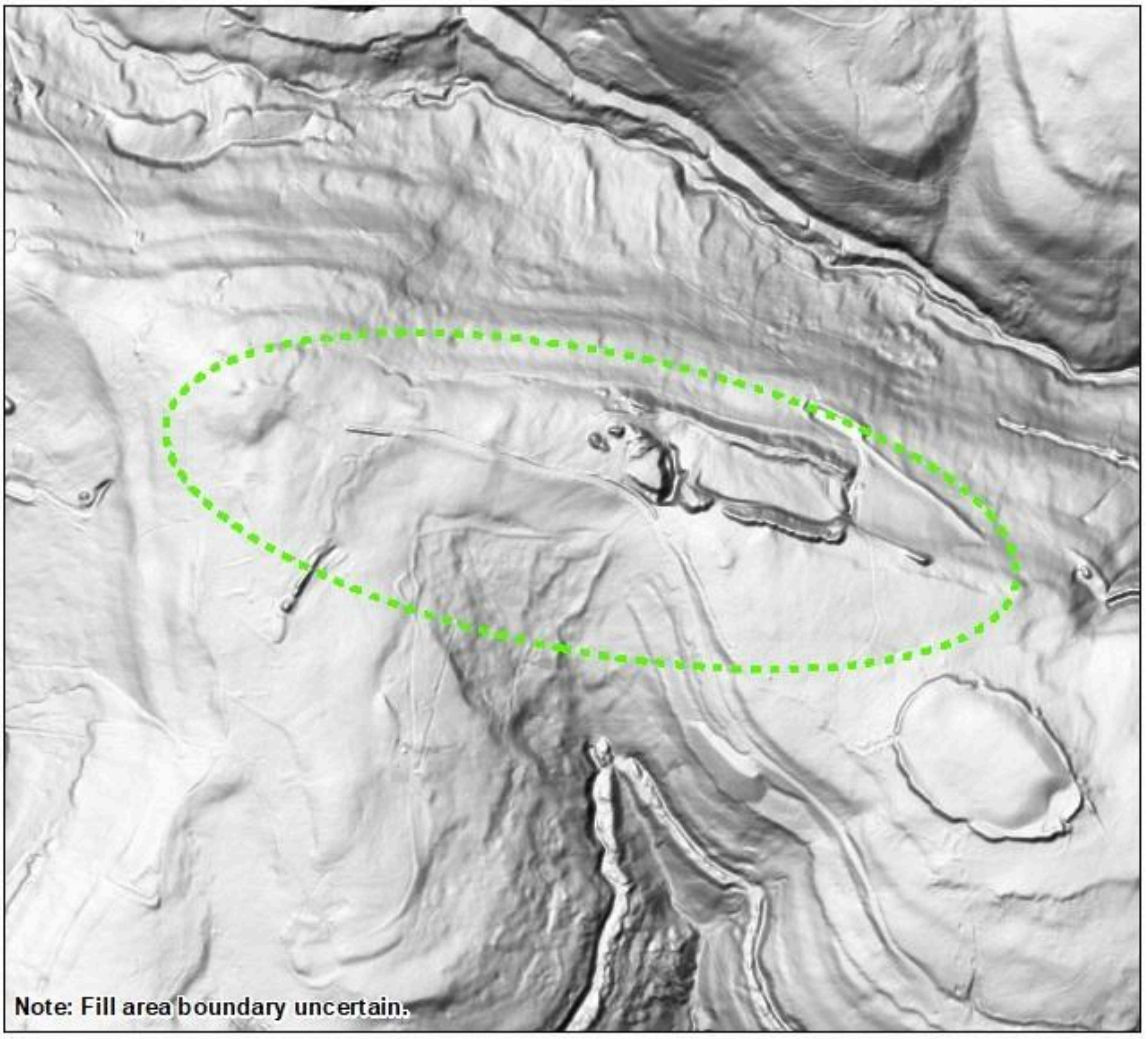
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

G&S COAL #1 COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Notes

Site History: MDE ID#: SM-92-421, as of 2017, the MDE site status is listed as active. Alkaline FBC fly ash and bottom ash from Warrior Run Power Plant were used to reclaim a surface coal mine.

Environmental Impacts: No information available.

Sources: Hooker, 2017; MDE, 2010; Maryland MERLIN Online

G&S COAL #2 COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2020
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Site Name: G&S Coal #2

State, County, City: Maryland, Garrett County

Address: Pee Wee Road - 1 Mile east of Rt. 38

Coordinates: 39°23'56.91"N 79°10'31.67"W

Owner: Savage Forest, LLC; HOP Brothers, LLC

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

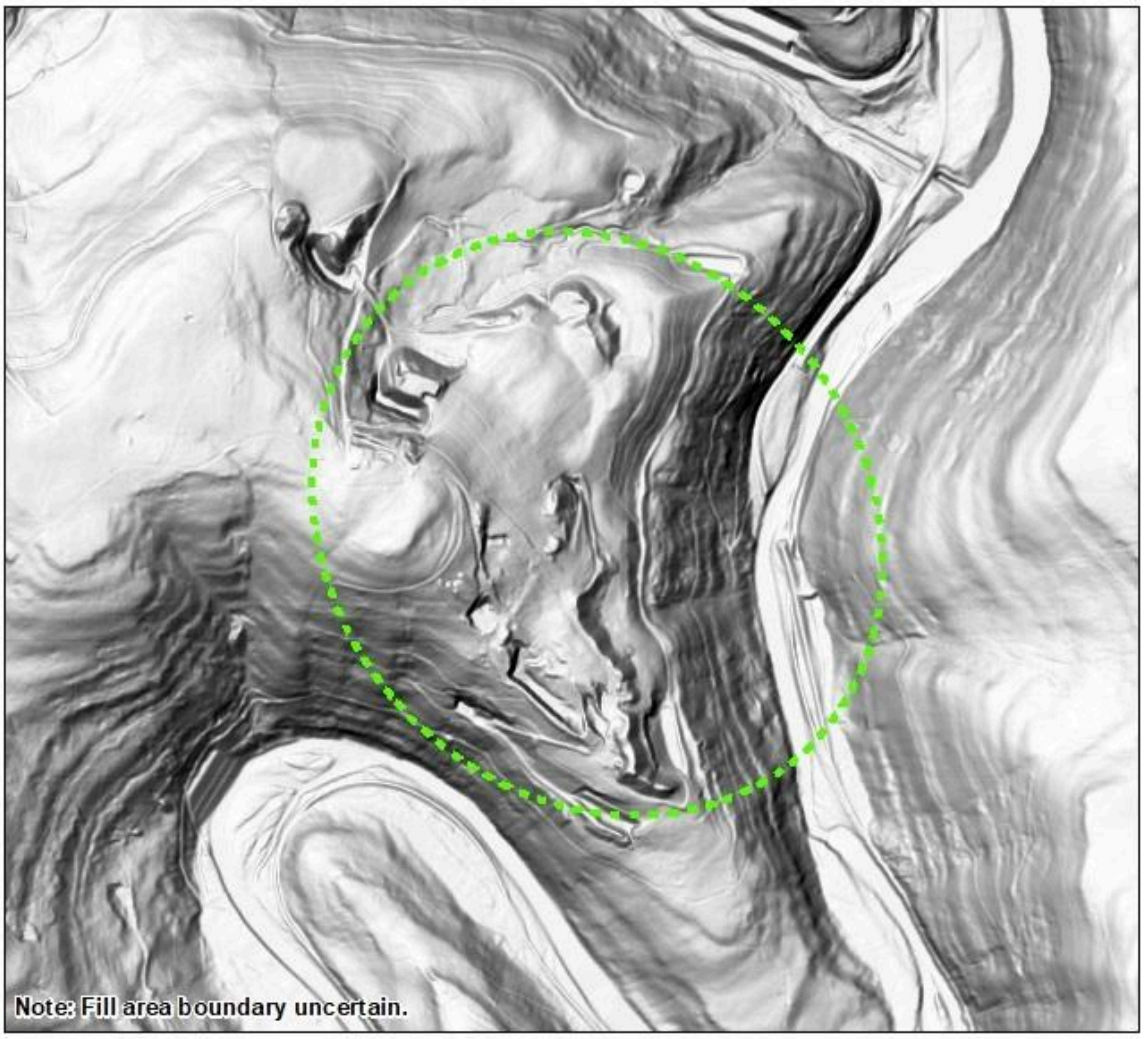
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

G&S COAL #2 COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Notes

Site History: MDE ID#: SM-00-435, as of 2017, the MDE site status is listed as active. Alkaline FBC fly ash and bottom ash from Warrior Run Power Plant were used to reclaim a surface coal mine.

Environmental Impacts: No information available.

Sources: MDE, 2010; Maryland MERLIN Online

G&S COAL #3 COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2016
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Site Name: G&S Coal #3

State, County, City: Maryland, Garrett County

Address: Rt. 136 6 miles S of Bloomington

Coordinates: 39°27'45.00"N 79°4'32.25"W

Owner: William Kenneth R. Life Int.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

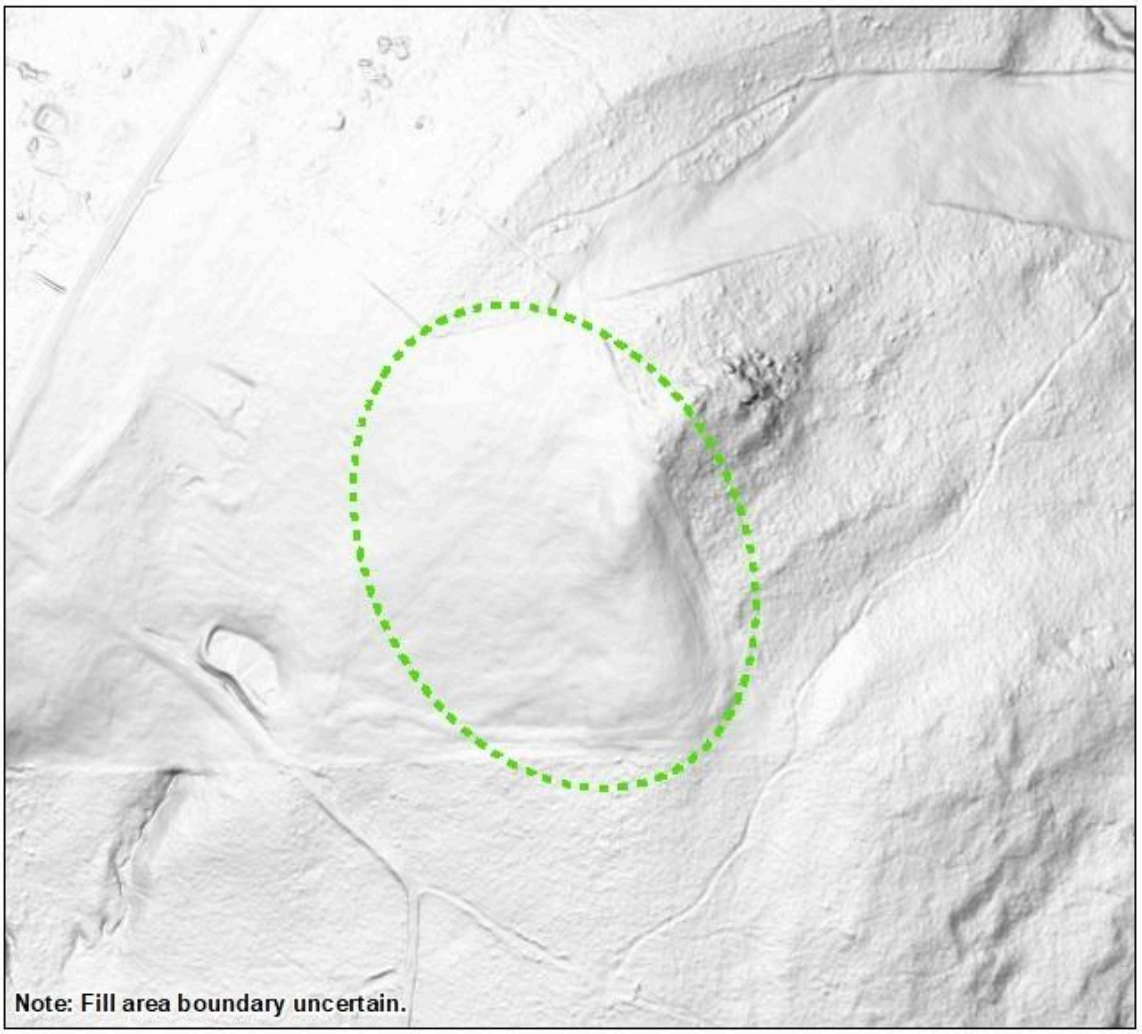
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2020

G&S COAL #3 COAL ASH DEPOSIT– LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology and historical aerial images.

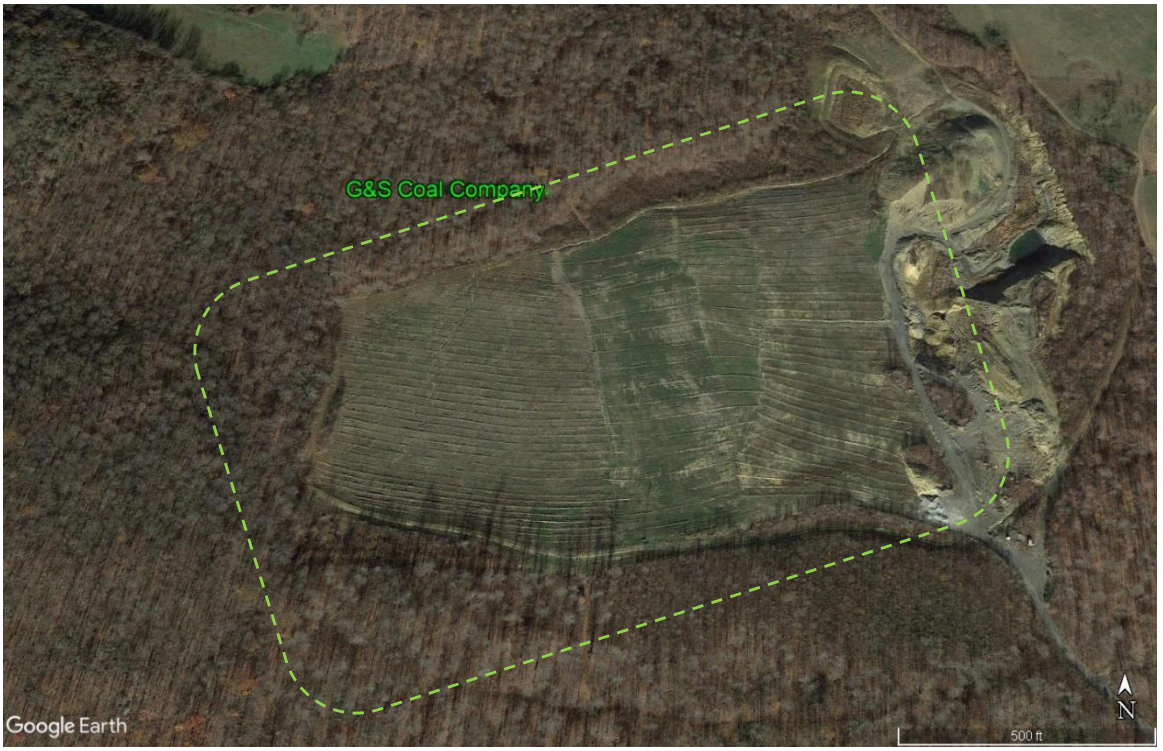
Notes

Site History: MDE ID#: SM-02-441, as of 2017, MDE site status is listed as complete. Alkaline FBC fly ash and bottom ash from Warrior Run Power Plant were used to reclaim a surface coal mine. The location is estimated.

Environmental Impacts: No information available.

Sources: Hooker, 2017; MDE, 2010

G&S COAL COMPANY SITE COAL ASH DEPOSIT



Source: GoogleEarth, 2020; Image Date: November 2016
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Site Name: G&S Coal Company

State, County, City: Maryland, Garrett County

Address: North of Pee Wee Rd.

Coordinates: 39°24'19.92"N 79°11'48.80"W

Owner: Sweitzer Barry R.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash and bottom ash

Estimated Quantity of CCRs: 1,902 tons (Hooker, 2017)

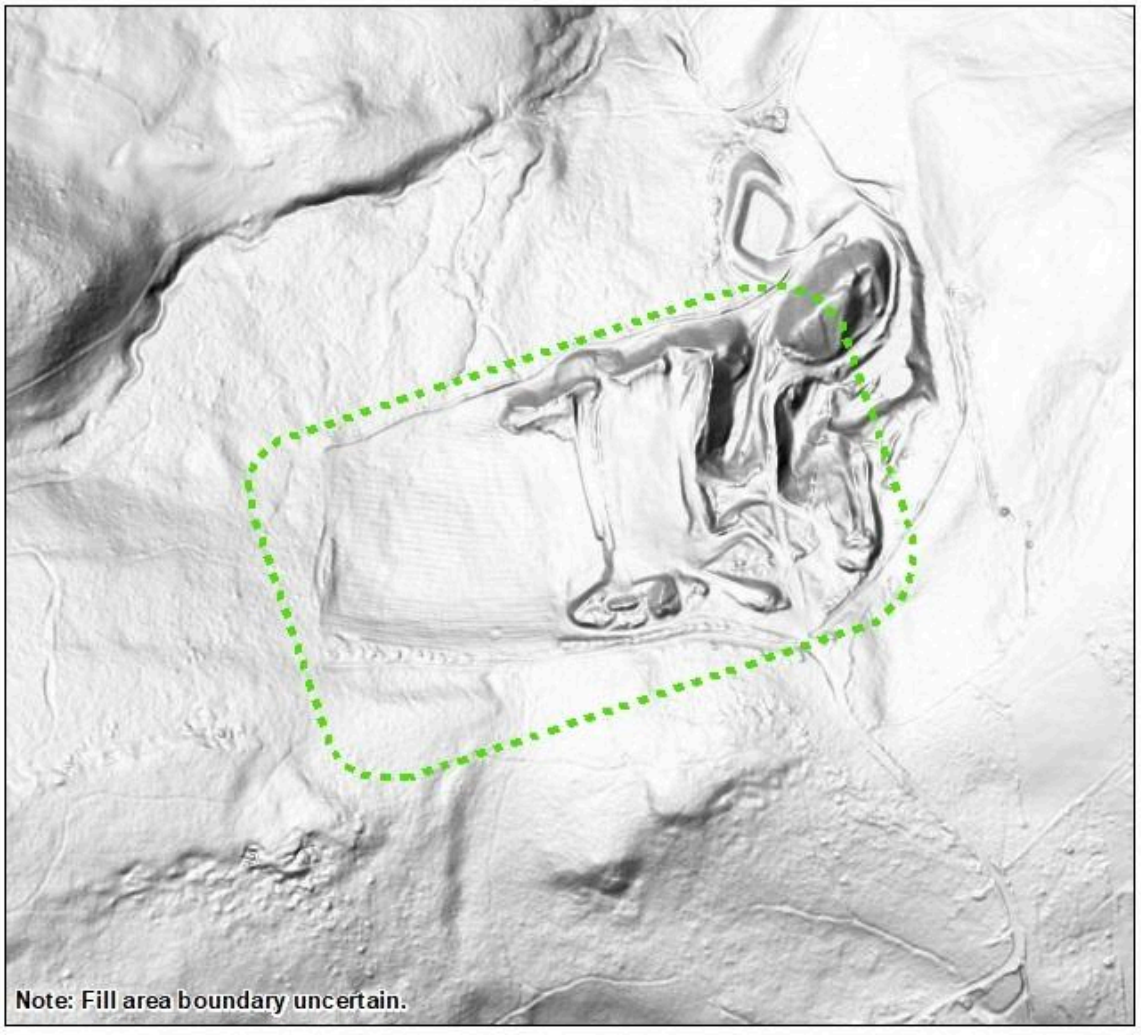
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

G&S COAL COMPANY SITE COAL ASH DEPOSIT– LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Notes

Site History: MDE ID#: SM-08-455, MDE status as of June 2017 is listed as active. The site was permitted in 2010 to receive a maximum of 12,000 tons of alkaline FBC ash from the Warrior Run Power Plant. As of 2017, approximately 1,902 tons had been placed.

Environmental Impacts: No information available.

Sources: Hooker, 2017

MORAN COAL COMPANY #2 COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2016.
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Site Name: Moran Coal Company #2

State, County, City: Maryland, Garrett County

Address: Westernport Rd. - 1.5 miles west of Westernport

Coordinates: 39°29'30.82"N 79°3'47.46"W

Owner: Moran Coal Company

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

MORAN COAL #2 COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology and historical aerial images.

Notes

Site History: MDE ID#: SM004-445, as of 2017, MDE site status is listed as complete. Alkaline FBC fly ash and bottom ash from Warrior Run Power Plant were used to reclaim a surface coal mine.

Environmental Impacts: No information available.

Sources: Hooker, 2017; MDE, 2010; Maryland MERLIN Online

MORAN COAL COMPANY/LUKE PAPER MILL COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2020

Site Name: Moran Coal Co./Luke Paper Mill Ash Site

State, County, City: Maryland, Garrett County

Address: Old Westernport Road - Site B of Franklin Strip Mine

Coordinates: 39°30'27.60"N 79°4'3.18"W

Owner: Moran Coal Co.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash

Estimated Quantity of CCRs: 444,000 (MDE, 2010)

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

MORAN COAL COMPANY/LUKE PAPER MILL COAL ASH DEPOSIT
– LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: MDE ID#: CCR-10-001, as of 2017, the MDE site status is active. Fly ash from the Luke Paper Mill (also referred to as Verso Co. or New Page) Power Plant was used to reclaim an abandoned surface coal mine. The site was actively receiving ash at least through 2010, however, the paper mill was shut down in 2019, and placement of CCRs ended at or before that point. A review of historical satellite photos indicates active CCR movement gradually south and east. Portions may have been capped recently. It is possible that this ash may contain high unburned carbon levels (based on its black color) and would have to be tested to determine if it is appropriate for cement kiln feedstock.

Environmental Impacts: MDE, 2010 indicates that water quality monitoring was performed at the site under the General Industrial Stormwater Permit.

Sources: MDE, 2010; Maryland MERLIN Online

SAVAGE MOUNTAIN MINERALS COAL ASH SITE

Source: GoogleEarth, 2020; Image Date: February 2020.
Dashed line shows possible fill area based on surface morphology.

Site Name: Savage Mountain Minerals

State, County, City: Maryland, Garrett County

Address: Michael Road via Bartlett Run Rd - 1.7 miles west of Barton

Coordinates: 39°32'38.99"N 79°2'12.04"W

Owner: Russel, Donald, Sr. Life, Int. (Maryland MERLIN Online)

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

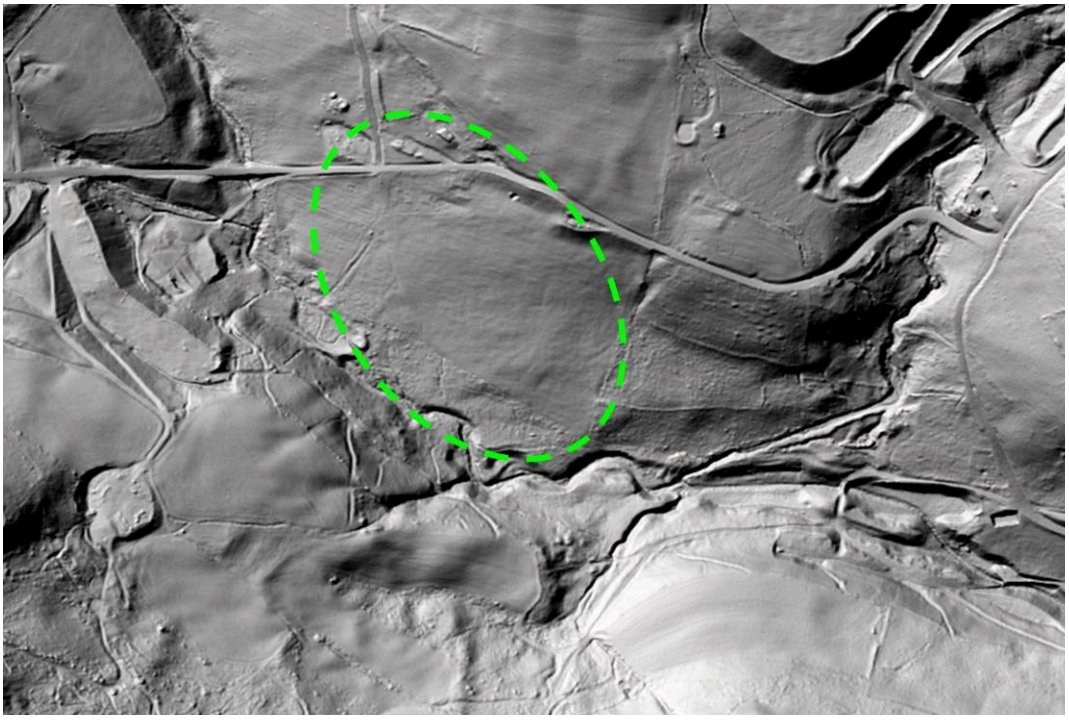
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

SAVAGE MOUNTAIN MINERALS COAL ASH DEPOSIT
– LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-05-448, as of 2017, the MDE site status is listed as active. Alkaline FBC fly ash and bottom ash from Warrior Run Power Plant were used to reclaim a surface coal mine. Historic aerial images are available on GoogleEarth dating back to 1995. Although Hooker, 2017 indicates that the site is active, data provided by MDE also indicates that no CCRs have been placed at the site since 2010. A review of historical images indicates that the site was vegetated between 2011 and 2013.

Environmental Impacts: No information available.

Sources: MDE, 2010; Hooker, 2017

TRI-STAR MINING COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: February 2020.
Dashed line shows possible fill area based on surface morphology.

Site Name: Tri Star Mining

State, County, City: Maryland, Garrett County

Address: Russell Road via Bartlett Run Rd. - 1.2 miles NW of Barton

Coordinates: 39°33'3.19"N79° 1'55.43"W

Owner: BTC Development; Russell Donald L. Sr. Life Int.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

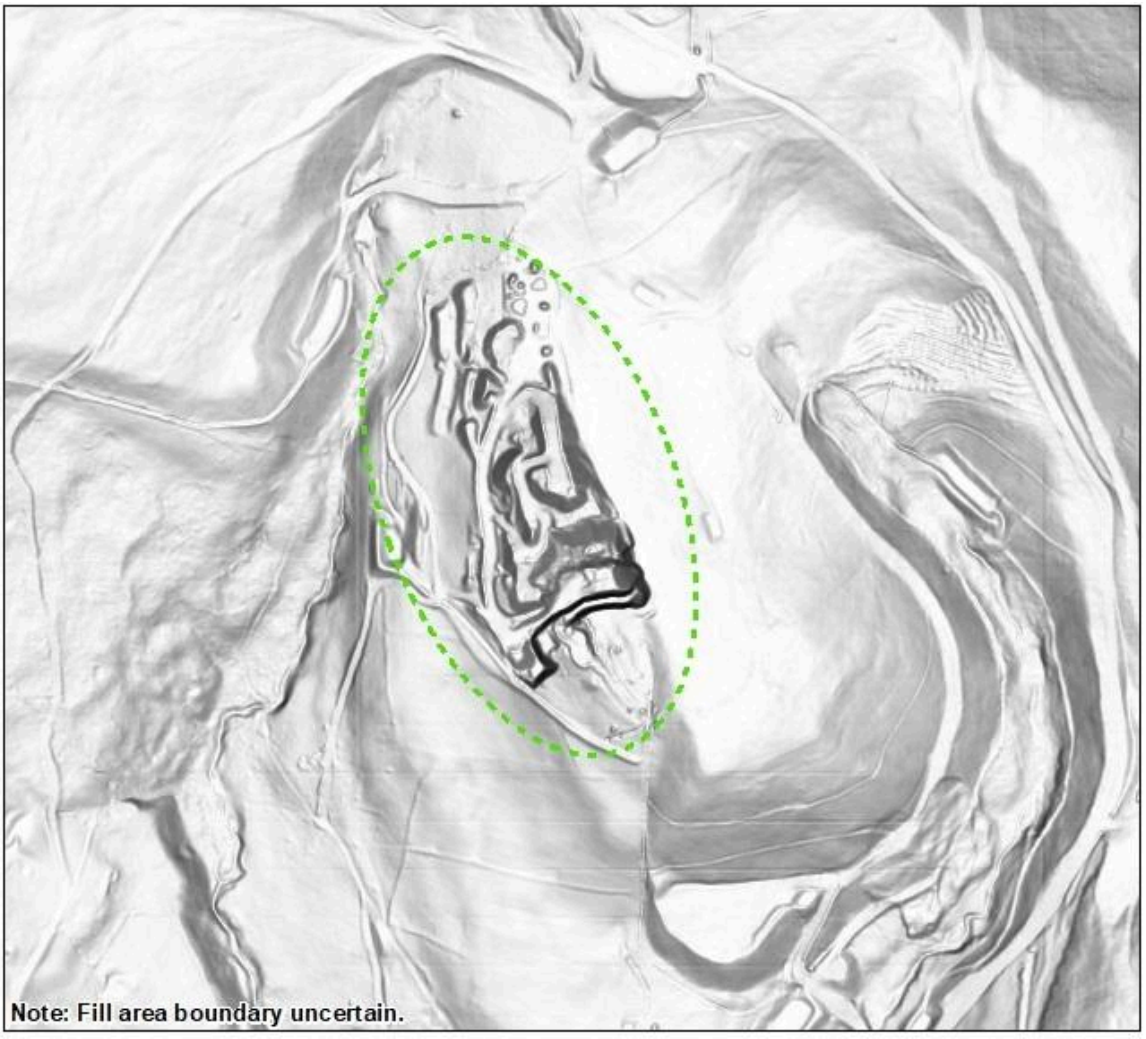
Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

TRI-STAR MINING COAL ASH DEPOSIT– LiDAR HILLSHADE



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: MDE ID#: SM-99-434, as of 2017, MDE site status is listed as complete. Alkaline FBC fly ash and bottom ash from the Warrior Run Power Plant were used to reclaim a surface coal mine. This location appears to be the location of a highwall collapse in 2007. Satellite imagery indicates there is still some activity adjacent to this site to the west (this may be an adjacent mine permitted separately).

Environmental Impacts: No information available.

Sources: MDE, 2010; Hooker, 2017; Cumberland Times, 2010; Maryland MERLIN Online

TRI-STAR MINING #2 COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2016.
Dashed line shows possible fill area based on surface morphology and historical images.

Site Name: Tri Star Mining #2

State, County, City: Maryland, Garrett County

Address: Russell Road via Bartlett Run Rd. - 2.3 miles NW of Barton

Coordinates: 39°32'21.04"N 79°2'44.20"W

Owner: BTC Development

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

TRI-STAR MINING #2 COAL ASH DEPOSIT– LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology and historical images.

Notes

Site History: MDE ID#: SM-03-444, as of 2017, MDE site status is listed as complete. Alkaline FBC fly ash and bottom ash from Warrior Run Power Plant were deposited to reclaim a surface coal mine.

Environmental Impacts: No information available.

Sources: MDE, 2010; Maryland MERLIN Online

VINDEX ENERGY CORP. ISLAND SOUTH COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: November 2016.
Dashed line shows possible fill area based on surface morphology.

Site Name: Vindex Energy Corp. Island South

State, County, City: Maryland, Garrett County

Address: Sharpless Mine Road via. Mt. Zion Rd - 0.6 miles S of Rt. 135

Coordinates: 39°26'14.92"N 9°12'35.85"W

Owner: Douglas Coal Co.

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: FBC fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: December 2023

VINDEX ENERGY CORP. ISLAND SOUTH COAL ASH DEPOSIT
– LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

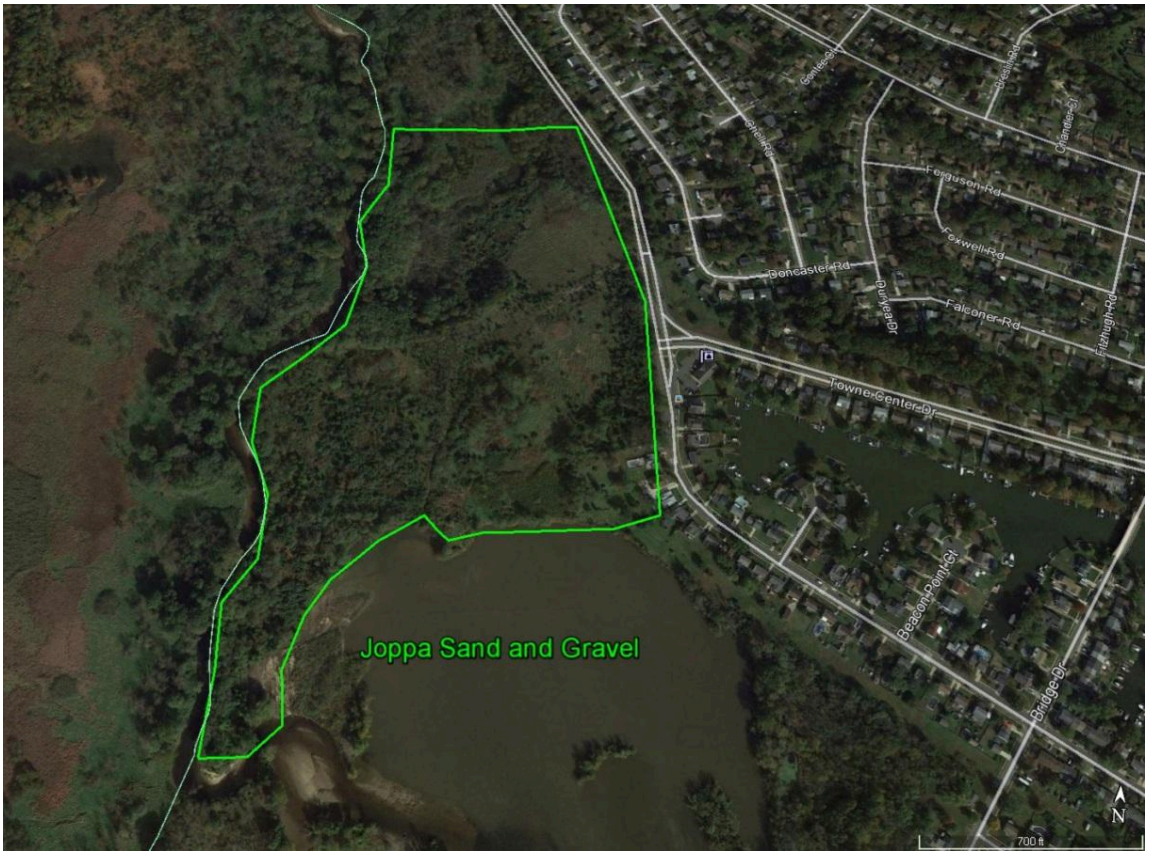
Site History: MDE ID#: SM-902-443, as of 2017, MDE site status is listed as complete. Alkaline FBC fly ash and bottom ash from Warrior Run Power Plant were used to reclaim a surface coal mine.

Environmental Impacts: No information available.

Sources: MDE, 2010; Maryland MERLIN Online; MDE 2008-2023

Harford County

JOPPA SAND AND GRAVEL SITE COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: November 2019

Site Name: Joppa Sand and Gravel Site

State, County, City: Maryland, Harford County

Site Address: East Bank of Little Gunpowder Falls, just north of Rumsey Island

Coordinates: 39°24'44.81"N 76°22'7.36"W

Owner: State of Maryland

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Approximately 40 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

JOPPA SAND AND GRAVEL COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

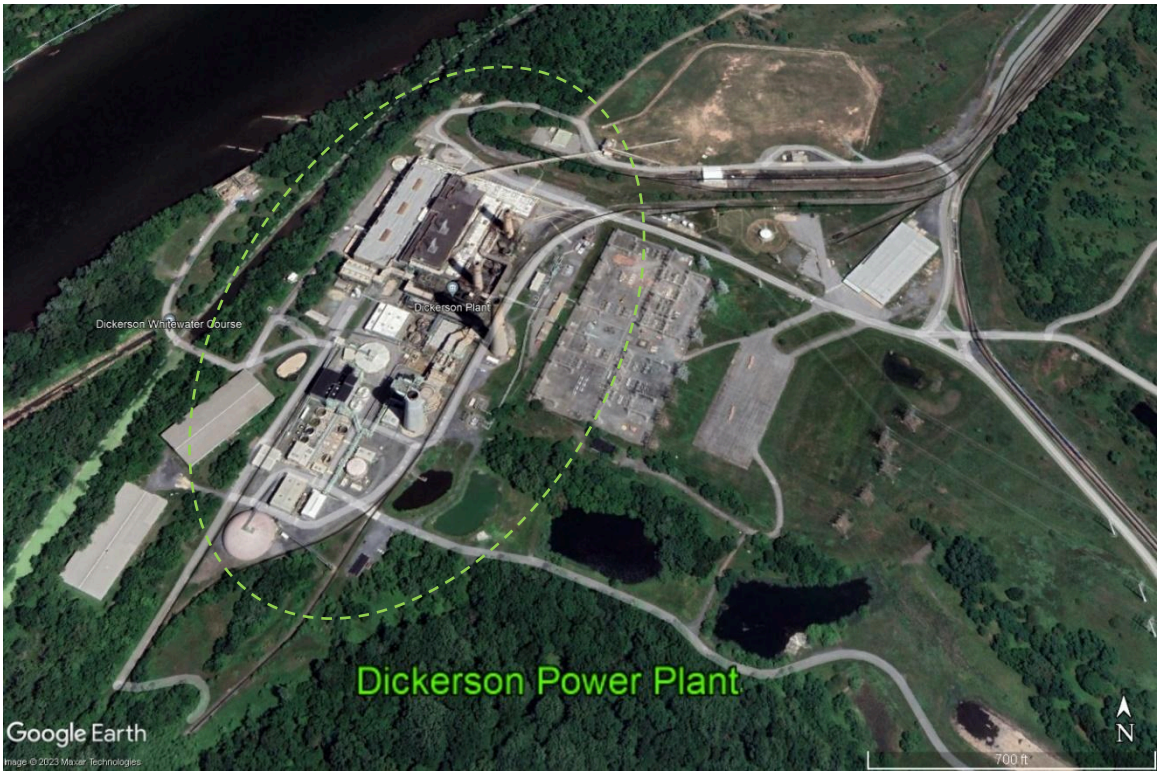
Site History: Class F fly ash from the H.A. The Wagner Power Plant was disposed of at the site around 1980. PPSP, 1982 indicates that CCRs were combined with construction debris and oyster shells. During the 1980s there were a series of lawsuits between the sand and gravel mine owner and the State of Maryland over ownership of the site. These were resolved in 1987, with no mention of CCRs as part of the lawsuit. The site is currently part of Gunpowder Falls State Park. A windshield survey was performed in July 2017. The site was viewed from Shore Dr. which runs along the eastern site boundary. The site is mostly vegetated. One paved private access road was visible. In May 2023, PPRP obtained permission from the Maryland Park Service to complete hand augur samples at the site; CCR was identified in one of the samples at a depth of approximately 5 feet below the ground surface.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Open Jurist, Joppa vs MD article; Maryland MERLIN Online

Montgomery County

DICKERSON POWER PLANT COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: June 2022
Dashed line shows possible fill area based on the site development pattern.

Site Name: Dickerson Power Plant Site

State, County, City: Maryland, Montgomery County, Dickerson

Site Address: 21200 Martinsburg Rd., Dickerson, MD 20842

Coordinates: 39°12'41.31"N 77°27'39.96"W

Owner: Potomac Electric Power Co. (NRG)

Number and Type of CCB Storage Units Onsite: Unknown, likely one or more structural fills

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCBs: Unknown

Estimated Area: Unknown

Beneficial Use Projects: None

CCB Compliance Website: None

Last Update: November 2023

DICKERSON POWER PLANT COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on the site development pattern.

Notes

Site History: Class F fly ash and bottom ash generated at the power plant were disposed of onsite between 1959 and 1973; the exact areas where the ash was placed could not be determined during the production of this report. From 1973 to 1981, this material was disposed of in Pennsylvania. In 1981, the Westland Coal Ash Storage site was constructed to dispose of fly ash and bottom ash from the Dickerson Power Plant (PPSP, 1982a). Coal-fired units at the Dickerson Power Plant were shut down in 2020.

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

WESTLAND FLY ASH STORAGE SITE COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: June 2022

Site Name: Westland Fly Ash Storage Site

State, County, City: Maryland, Montgomery County, Dickerson

Site Address: 20831 Martinsburg Road, Dickerson, MD 20842

Coordinates: 39°11'30.85"N 77°27'30.87"W

Owner: GenOn MD Ash Management, LLC

Number and Type of CCB Storage Units Onsite: 1 Landfill

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCBs: 3.5 million cubic yards (MDE, 2010)

Estimated Area: Unknown

Beneficial Use Projects: Recovery of CCBs for use in cement manufacture began in 2019

CCB Compliance Website: https://www.genon.com/ccr-rule-compliance/

Last Update: November 2023

WESTLAND FLY ASH STORAGE COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data

Notes:

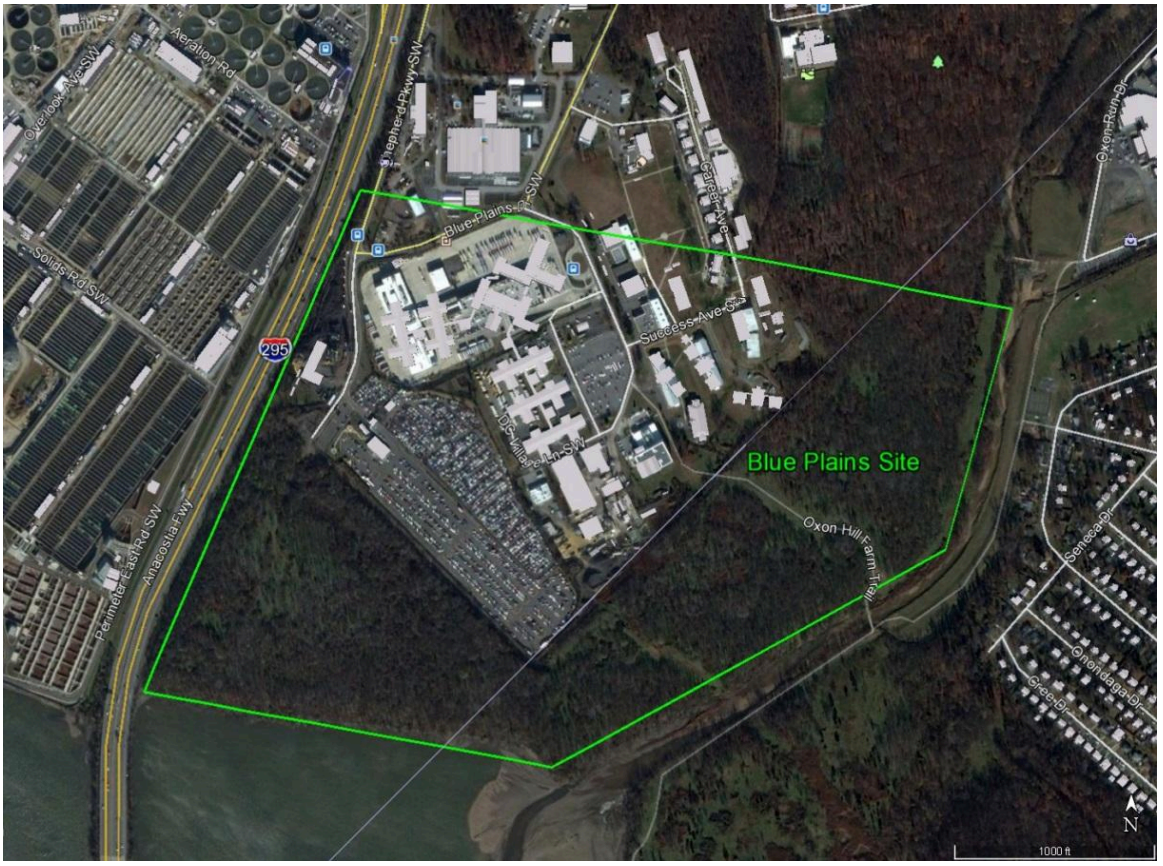
Site History: The landfill received CCR from Dickerson Power Plant from 1981 until the power plant stopped burning coal in 2020. Recovery of CCR for sale to the cement industry began in 2019.

Environmental Impacts: A consent decree issued in 2013 settled lawsuits from State and environmental groups claiming that the landfill had impacted groundwater quality (Wheeler, 2013).

Sources: PPSP, 1982; MDE, 2010; Wheeler, 2013; GenOn, 2023

Prince George's County

BLUE PLAINS COAL ASH DEPOSIT



Source: GoogleEarth Pro; Image Date: July 2019

Site Name: Blue Plains Site

State, County, City: Maryland, Prince George's County, and Washington DC

Site Address: East of 295 near Oxon Run

Coordinates: 38°48'51.95"N 77°0'54.50"W

Owner: Two unimproved parcels are located in Prince George's County with the owner listed as the United States

Number and Type of CCR Storage Units: 1 Structural fill

Accepted Materials (e.g., fly ash, gypsum): Class F fly ash

Estimated Quantity of CCR: Unknown

Estimated Area: 100 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

BLUE PLAINS COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Fly ash from the Benning Road and Buzzard Point Power Plants was placed at the site during the 1950s. Most of this site is located within Washington DC. The portion of the site within Washington DC is partly developed with parking lots and buildings. The remainder of the site appears to be vegetated. There is a Blue Plains Wastewater Treatment Plant in the area, it is unknown whether it extends onto the old landfill area.

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

BRANDYWINE FLY ASH STORAGE SITE COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: July 2023

Site Name: Brandywine Fly Ash Storage Site

State, County, City: Maryland, Prince George's County, Brandywine

Site Address: 11700 North Keys Road, Brandywine

Coordinates: 38°42'5.25"N 76°48'30.44"W

Owner: NRG

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Class F fly ash, bottom ash, FGD products (potentially including sodium sulfate)

Estimated Quantity of CCRs: 7 million cubic yards (MDE, 2010)

Estimated Area: 300 acres (Wheeler, 2010)

Beneficial Use Projects: None

CCR Compliance Website: https://www.genon.com/ccr-rule-compliance/

Last Update: November 2023

BRANDYWINE FLY ASH STORAGE SITE COAL ASH DEPOSIT
– LiDAR HILLSHADE

Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

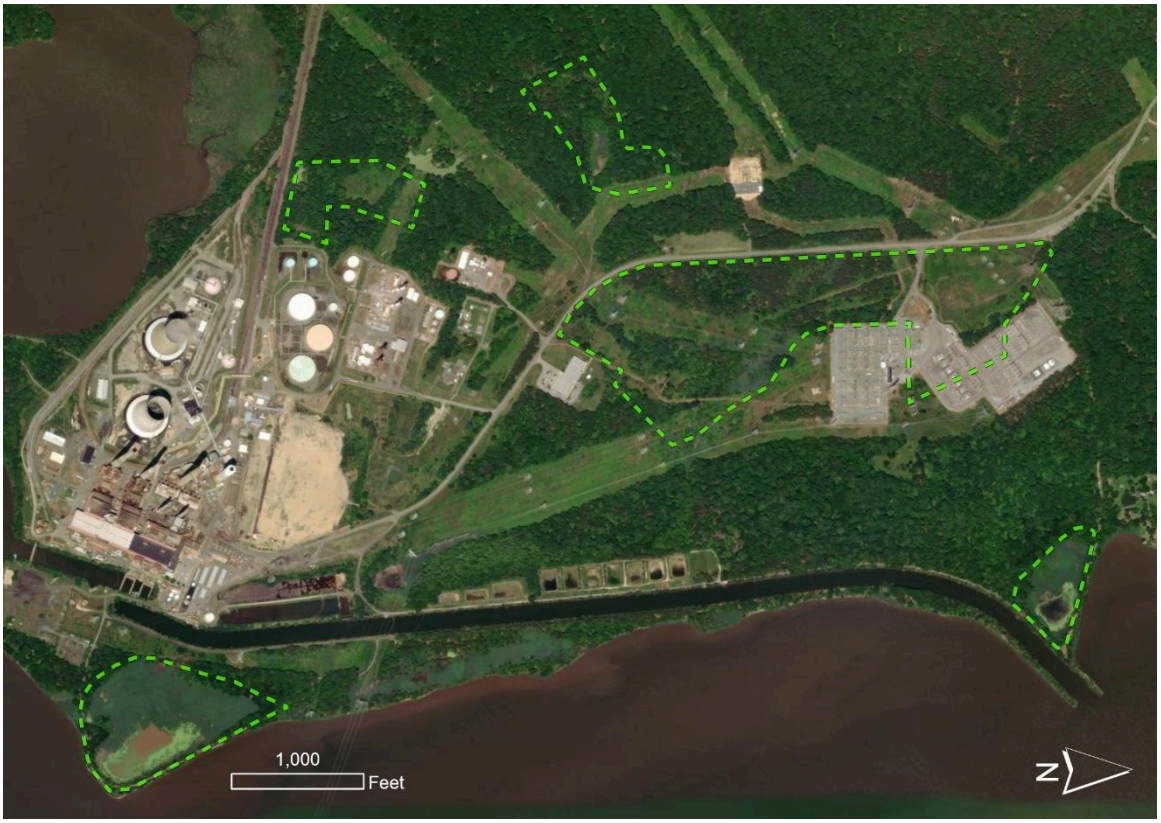
Notes

Site History: Active CCR storage site receiving CCRs from Chalk Point and Morgantown Power Plants since 1970.

Environmental Impacts: A lawsuit was filed by MDE in 2010 that included Faulkner and Westland in a consent decree issued in 2013. In addition, Hurricane Irene reportedly caused ash overflow at the site in 2011 (Wheeler, 2013). Portions of this site are currently monitored under the EPA 2015 CCR Rule.

Sources: PPSP, 1982a; MDE, 2010; Wheeler, 2010; Wheeler, 2013; Environmental Integrity Project, 2019; GenOn 2023

CHALK POINT POWER PLANT COAL ASH DEPOSITS



Source: Maryland Department of Information Technology,
Geographic Information Office, Maryland
Dashed line shows possible fill area based on surface morphology historic aerial imagery.

Site Name: Chalk Point Power Plant Site

State, County, City: Maryland, Prince George's County, Aquasco

Site Address: 25100 Chalk Point Rd., Aquasco, MD 20608

Coordinates: 38°32'37.95"N 76°41'13.90"W

Owner: GenOn Chalk Point, LLC

Number and Type of CCB Storage Units Onsite: Unknown, at least two, possibly more structural fills

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCBs: Unknown

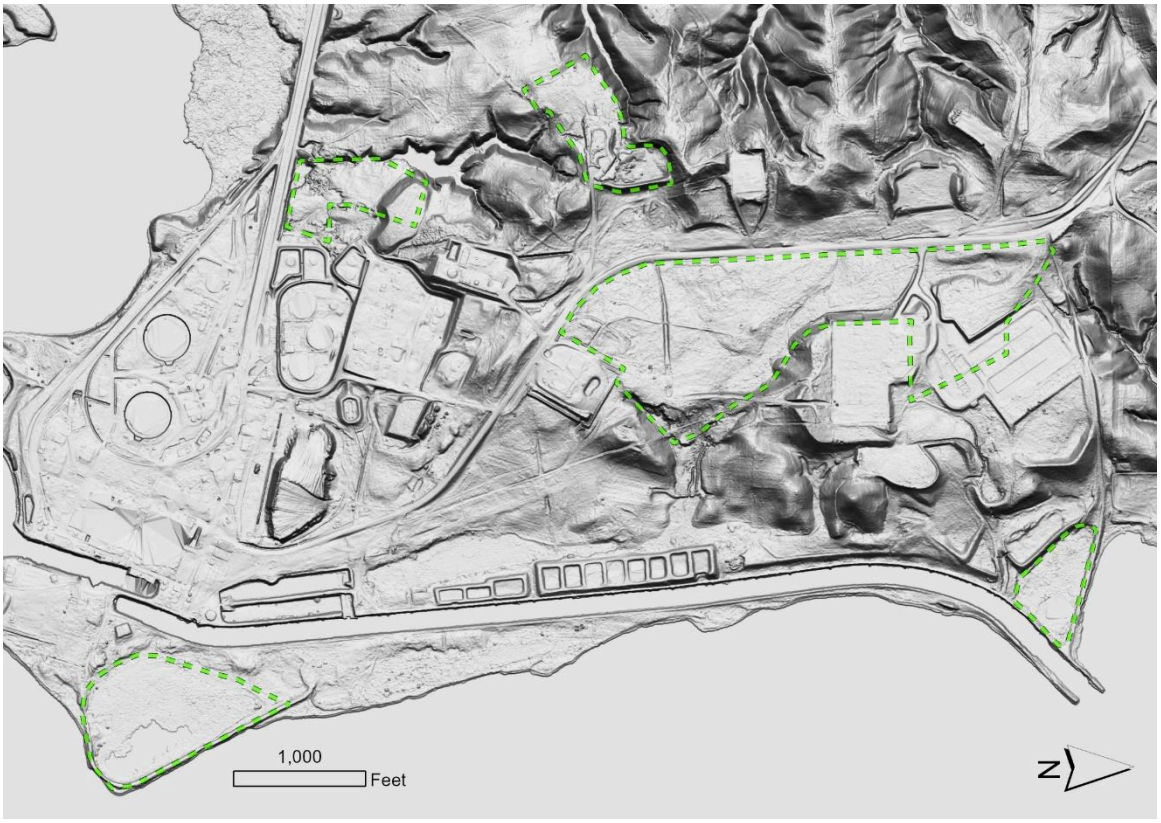
Estimated Area: Unknown

Beneficial Use Projects: None

CCB Compliance Website: None

Last Update: November 2023

CHALK POINT POWER PLANT COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: Class F fly ash and bottom ash generated at the power plant were disposed of in on-site landfills from 1964 to 1970 (PPSP, 1982). Disposal moved to the Brandywine landfill in 1970.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

DYSON ROAD COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: July 2023

Site Name: Dyson Road Site

State, County, City: Maryland, Prince George's County

Address: Triangle formed by Dyson Rd., Rt. 301., and Missouri Ave.

Coordinates: 38°42'49.66"N 76°51'11.38"W

Owner: 8935 MP LLC

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: 3 acres (PPSP, 1982)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

DYSON ROAD COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Site location and area are approximate. The site received fly ash and bottom ash from the Chalk Point and Morgantown Power Plants during the early 1970s. PPSP, 1982a indicates that this was a relatively small filling project.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

KENILWORTH AVENUE SITE COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: July 2023
Dashed line shows possible fill area based on surface morphology.

Site Name: Kenilworth Avenue Site

State, County, City: Maryland, Prince George's County

Address: Not available

Coordinates: 38°54'53.37"N 76°55'37.98"W

Owner: Developed, multiple owners

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Approximately 50 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

KENILWORTH SITE COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Class F fly ash and bottom ash from the Benning Road and Buzzard Point Power Plants were placed at the site during the 1950s.

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

PISCATAWAY SITES 1, 2, AND 3 COAL ASH DEPOSITS

Source: GoogleEarth Pro; Image Date: April 2018

Site Name: Piscataway Sites 1, 2, and 3

State, County, City: Maryland, Prince George's County

Address: Piscataway Dr.

Coordinates: 38°41'56.47"N 77°0'15.78"W; 38°41'53.11"N 77°0'8.24"W; and 38°41'56.97"N 76°59'49.50"W

Owner: United States of America and Piscataway Hills Citizens Association (Site 1); Bean Charles Norman Jr Etal (Site 2); MD National Capital Park and Planning Co. (Site 3)

Number and Type of CCR Storage Units Onsite: 3 Structural fills

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCRs: Unknown

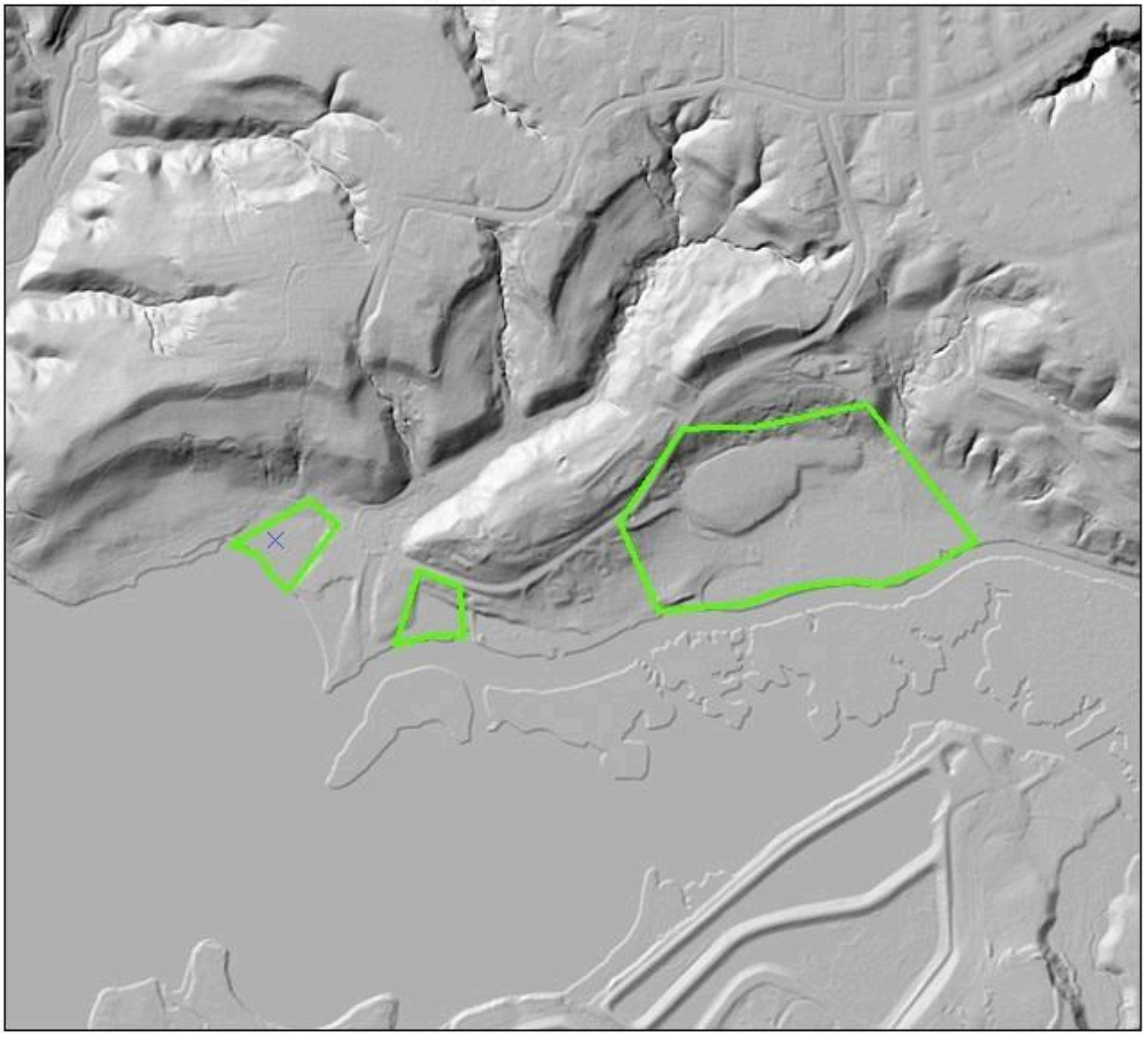
Estimated Area: 2 acres (Sites 1 and 2); 10 acres (Site 3); Approximate aggregate acreage – 14 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

PISCATAWAY SITES 1, 2, AND 3 COAL ASH DEPOSIT – LiDAR HILLSHADE



Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: CCRs from Benning Road and Buzzard Point Power Plants were disposed of at these three sites during the early 1970s. PPSP, 1982a indicates that this was a relatively small filling project. A windshield survey of all 3 sites was performed on 28 July 2017. Visibility of Sites 2 and 3 was limited due to heavy vegetation, but sites appeared to be vegetated with steep terrain. Site 1 was not accessible because Piscataway Dr. ends before it reaches this site.

Environmental Impacts: No information available.

Sources: PPSP, 1982a; Maryland MERLIN Online

RITCHIE ROAD SITE COAL ASH DEPOSIT

Source: GoogleEarth, 2020; Image Date: April 2020

Site Name: Ritchie Road Site

State, County, City: Maryland, Prince George's County

Site Address: Northwest of the intersection of Ritchie Road and Ritchie Spur Road

Coordinates: 38°52'12.68"N 76°51'24.43"W

Owner: Prince Georges County and four others: Ritchie Properties LLC, Normbell Transportation Ltd, 1301 Ritchie LLC, Ritchie Road PG LLP

Number and Type of CCB Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash and bottom ash

Estimated Quantity of CCBs: Unknown

Estimated Area: Approximately 1 acre (PPSP, 1982)

Beneficial Use Projects: None

CCB Compliance Website: None

Last Update: November 2023

RITCHIE ROAD SITE COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Class F fly ash and bottom ash from the Benning Road and Buzzard Point Power Plants were placed as fill at this site between 1967 and 1968. PPSP, 1982a describes this site as a "relatively small fill site."

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

WOODS CORNER COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: March 2021

Site Name: Woods Corner Site

County: Prince George's County

Site Address: Northeast corner of I-95 and Branch Avenue

Coordinates: 38°49'31.78"N 76°55'13.92"W

Owner: The site is developed with multiple owners

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, construction debris, and domestic waste

Estimated Quantity of CCRs: Unknown

Estimated Area: 120 Acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

WOODS CORNER COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Fly ash from the Benning Road and Buzzard Point Power Plants were placed at the site during the 1960s.

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

Washington County

HAGERSTOWN SITE COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: May 2023

Site Name: Hagerstown Power Plant Site

State, County, City: Maryland, Washington, Hagerstown

Address: Corner of Eastern Blvd. and Mt. Aetna Rd, along the bank of Antietam Creek

Coordinates: 38°37'53.38"N 77°42'34.70"W

Owner: Hagerstown Fiber and Light

Number and Type of CCR Storage Units Onsite: 1 Structural fill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Unknown

Estimated Area: Approximately 5 acres (PPSP, 1982a)

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

HAGERSTOWN SITE COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: A portion of the fly ash and bottom ash from Hagerstown Fiber and Light was disposed of onsite from the 1950s until 1971. PPSP 1982a indicates that this plant produced a relatively small amount of CCR and much of the material was sent to a landfill in Pennsylvania. The Hagerstown Plant stopped burning coal in 1971.

Environmental Impacts: None available.

Sources: PPSP, 1982a; Maryland MERLIN Online

RP SMITH POWER PLANT COAL ASH DEPOSIT

Source: GoogleEarth Pro, Polygons: Western MD Regional GIS Center, 2021
Dashed line shows possible fill area based on surface morphology.

Site Name: RP Smith Power Plant Ash Deposit

State, County, City: Facilities east of river: Maryland, Washington County, Williamsport

Facilities west of river: West Virginia, Berkeley County, Marlowe

Site Address: Ripple Way Road, Marlowe, WV 25419

Coordinates: 39°35'19.62"N, 77°50'0.22"W

Owner: FirstEnergy

Number and Type of CCR Storage Units Onsite: 4 Impoundments, 1 landfill

Accepted Materials: Fly ash and bottom ash

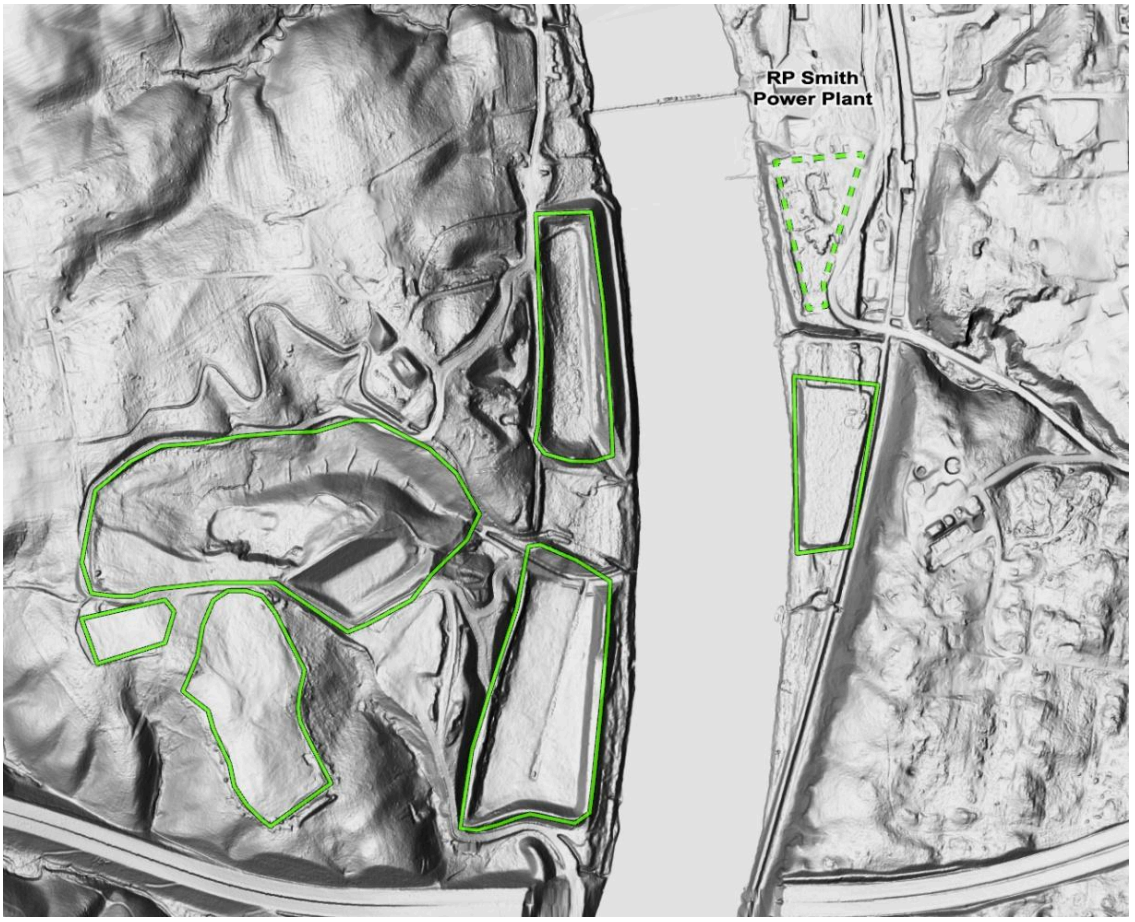
Estimated Quantity of CCRs: The CCR landfill has been removed. CCR remains on the Maryland side in a retired impoundment.

Beneficial Use Projects: The CCR landfill has been recycled into cement.

CCR Compliance Website: None

Last Update: November 2023

RP SMITH POWER PLANT COAL ASH DEPOSIT – LIDAR HILLSHADE



Source: Site Polygons - Western MD Regional GIS Center, LIDAR MD IMAP
Dashed line shows possible fill area based on surface morphology.

Notes

Site History: The first generating unit at the RP Smith Plant began service in 1927 as part of the West Penn Electric Company. The 1927 unit was replaced by a new unit in 1947 with a nameplate capacity of 34.5 MW. An additional 75 MW operating unit was constructed in 1958, bringing the capacity to 115 MW. In 1960 the West Penn Electric Company was renamed Allegheny Power System, Inc. The RP Smith station was one of six FirstEnergy stations to be retired in 2012. In its last years, the plant was operated intermittently. FirstEnergy ceased plant operations on September 1, 2012.

Up to 50,000 tons of CCR were generated annually. Ash Ponds #3 and #4 were constructed in the 1960s to receive ash sluiced from the power plant across the river. Allegany Energy noted in one report, that Pond #1 (removed) and Pond #2 (filled with soil and covered with grass) used to exist on the Maryland side at the power plant site, but they were retired in the 1960s (2012 Dam Assessment Report). GIS measurements indicate there may be over 800,000 cubic yards of material present at the southern impoundment on the Maryland side. It is unknown how much of this material is ash vs. soil fill. Removal and recycling of the 30-acre CCR landfill on the West Virginia side of the river began in 2009 and was completed in 2020. More than 3 million tons of CCR were delivered to the cement industry for recycling into cement.

Environmental Impacts: none known

Sources: CHA Consulting, 2010; MDE, 2008-2023; Lee et al, 2015

Wicomico County

NEWLAND PARK LANDFILL COAL ASH DEPOSIT

Source: GoogleEarth Pro; Image Date: April 2023

Site Name: Newland Park Sanitary Landfill

State, County, City: Maryland, Wicomico, Salisbury

Address: 7151 Brick Kiln Road, Salisbury, MD

Coordinates: 38°23'20.76"N 75°38'4.56"W

Owner: Wicomico County Department of Public Works

Number and Type of CCR Storage Units Onsite: 1 Landfill

Accepted Materials: Class F fly ash, bottom ash

Estimated Quantity of CCRs: Approximately 200,000 cubic yards

Estimated Area: Approximately 100 acres

Beneficial Use Projects: None

CCR Compliance Website: None

Last Update: November 2023

NEWLAND PARK LANDFILL COAL ASH DEPOSIT – LiDAR HILLSHADE

Source: Maryland Department of Information Technology, Geographic Information Office, Maryland iMAP LiDAR data

Notes

Site History: Fly ash from the Indian River Power Plant was used as structural fill under the landfill liner system. As of 2023, the landfill is still active.

Environmental Impacts: Groundwater is monitored as required by MDE landfill regulations.

Sources: MDE, 2010; MDE 2020b

References

Allegany County, Maryland, 2015. Solid Waste Management Plan: Revised for the 2014-2024 Planning Period. 9/17/15.

Allegany County, Maryland, 2023. https://gov.allconet.org/305/Mountainview-Landfill, accessed 11/2/23.

ArchCoal, 2012. Arch Coal's Vindex Energy Earns Third State Maryland Excellence in Reforestation Award. http://news.archcoal.com/news-releases/news-release-details/arch-coals-vindex-energy-earns-third-state-maryland-excellence?ID=1710600&c=107109&p=irol-newsArticle, accessed 7/7/17.

Barr, Sheryl, 2012. Crownsville tire dump owners face $32M in penalties. *Capital Gazette*, 1 December 2012. https://wvmdtaskforce.files.wordpress.com/2016/01/01-ashby.pdf, Accessed 7/5/17.

CHA Consulting, Inc., 2010. Assessment of Dam Safety Coal Combustion Surface Impoundments (Task 3) Final Report: Allegheny Energy R. Paul Smith Station, April 21, 2010. https://archive.epa.gov/epawaste/nonhaz/industrial/special/fossil/web/pdf/ae-paul-final.pdf, accessed 4/29/2021.

Coal Diver, 2020. Carlos Surface Mine. http://coaldiver.org/msha-id/1800769, accessed December 2020.

Cumberland Times, 2010. $8 Million Lawsuit Filed Against Tri-Star Mining. *The Cumberland Times*, April 15, 2010. http://www.times-news.com/news/local_news/new-million-lawsuit-filed-against-tri-star-mining/article_2d8053fe-1ad4-518d-9f72-fceca71595c0.html, accessed 7/22/17.

GenOn, CCR Compliance Rule Data and Information. https://www.genon.com/ccr-rule-compliance/, accessed 11/14/23.

Environmental Integrity Project (EIP), 2019. *Coal's Poisonous Legacy*. March 4, 2019. https://environmentalintegrity.org/reports/coals-poisonous-legacy/. Accessed 5/3/21.

Hooker, Alan, 2017. Personal Communication, email, and attached data files from Alan Hooker (MDE) to Robin Lee (ERM) dated 6/9/17.

Hoyt, Brian, 2017. Personal communication, email from Brian Hoyt (Raven) to Robin Lee (ERM) dated 6/2/17.

Jackson, Alex, 2012. Fight to clean up Crownsville dump continues 30 years later. *Capital Gazette*, September 2, 2012. http://www.capitalgazette.com/cg2-arc-dbac2518-b392-50a6-ba2f-abd461210d36-20120902-story.html, accessed 7/5/17.

Knight, Debbie, 2017. Personal communication, email from Debbie Knight (NRG) to Robin Lee (ERM) dated 6/9/17).

Lee, Robin; Rafalko, Lenny; Erbe, M.; and Petzrick, Paul, 2015. Transforming CCBs in Maryland to Enhance Beneficial Use. Presented at 2015 World of Coal Ash (WOCA), Nashville, TN, May 5-7, 2015. http://www.flyash.info/2015/031-lee-2015.pdf, accessed 4/27/21.

Maryland Department of the Environment, BFI Factsheet. Browning Ferris Industries-Solley Road Landfill Glen Burnie, MD. http://msa.maryland.gov/megafile/msa/speccol/sc5300/sc5339/000113/001000/001784/unrestricted/20061232e.pdf, accessed 6/7/17.

Maryland Department of the Environment, Norris Farm Landfill/Chemical Processing Center (MD-18), Dundalk, Baltimore County, MD. http://textonly.mde.state.md.us/assets/document/brownfields/Norris_Farm_Landfill.pdf, accessed 6/8/17.

Maryland Department of the Environment, 2008-2023. MDE CCB Tonnage Reports. http://mde.maryland.gov/programs/land/SolidWaste/Pages/ccbs.aspx, accessed 11/10/23.

Maryland Department of the Environment, 2009a. Facts About: Pennington Avenue Landfill, November 2009. http://websrvr.mde.md.gov/assets/document/Pennington%20Avenue%20Landfill.pdf, accessed 7/5/17.

Maryland Department of the Environment, 2009b. Maryland Historic Landfill Initiative. March 25, 2009. https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/1%20HIST_LNDFLL_INI09rev.pdf, accessed 3/11/21.

Maryland Department of the Environment, 2010. Facts About: Coal Combustion Byproduct Sites in Maryland, August 2010. https://www.mde.state.md.us/programs/Land/SolidWaste/Documents/www.mde.state.md.us/assets/document/FactSheetCCBSites.pdf, accessed 7/5/17.

Maryland Department of the Environment, 2013. Facts About: Rossville Coal Ash Structural Fill Site, November 2013. https://mde.maryland.gov/programs/Land/MarylandBrownfieldVCP/Documents/Rossville%20Coal%20Ash%20Structural%20Fill%20Site.pdf, accessed 7/5/17.

Maryland Department of the Environment, 2014a. Facts About: BFI Quarantine Road Site, May 2014. https://mde.maryland.gov/programs/Land/MarylandBrownfieldVCP/Documents/QUARANTINE%20ROAD.pdf, accessed 7/5/17.

Maryland Department of the Environment, 2014c. Facts About: Reedbird Landfill Site, December 2014. https://mde.maryland.gov/programs/Land/MarylandBrownfieldVCP/Documents/REEDBIRD.pdf, accessed 7/5/17.

Maryland Department of the Environment, 2019. Closed Solid Waste Acceptance Facilities Contact List. Last updated October 24, 2019. https://mde.maryland.gov/programs/LAND/SolidWaste/Documents/Closed_Facilities_Contact_List.pdf, accessed December 2020.

Maryland Department of the Environment, 2020a. Brownfields Master Inventory (BMI). https://mde.maryland.gov/programs/Land/MarylandBrownfieldVCP/Pages/BrownfieldMasterInventory.aspx, accessed December 2020.

Maryland Department of the Environment, 2020b. Permitted Solid Waste Acceptance Facilities, April 28, 2020. https://mde.maryland.gov/programs/LAND/SolidWaste/Documents/Permitted_Solid_Waste_Facilities.pdf, accessed December 2020.

Maryland Department of the Environment, 2022. Solid Waste Program Groundwater Discharge Permits, updated March 2, 2022. https://mde.maryland.gov/programs/land/SolidWaste/Documents/Rubble_Landfills_w_GW_Permit.pdf. Accessed November 2023.

Maryland MERLIN Online. https://www.arcgis.com/home/item.html?id=1038dd7a924b46899d23053dbc4c6dd6, accessed 6/6/17.

Open Jurist. 819 F. 2d 1138 – Joppa Sand Gravel Corporation v. State of Maryland R C. http://openjurist.org/819/f2d/1138/joppa-sand-gravel-coproration-v-state-of-maryland-r-c, accessed 6/9/17.

Power Plant Environmental Review (PPER), 1994. Environmental Aspects of the Brandon Woods Coal Ash Site. May 1994. Report No. PPER-MP-60.

PPRP, 2007. Assessment of Water Quality Impacts Associated with Use of Coal Combustion Products as Structural Fill at the BBSS Site, June 2007. Report Nos. DNR 12-6182007-221 and PPRP-142.

Power Plant Environmental Review (PPER), 1994. Environmental Aspects of the Brandon Woods Coal Ash Site. May 1994. Report No. PPER-MP-60.

Power Plant Research Program (PPRP), 2004. Evaluation of Water Quality Conditions Associated with the Use of Coal Combustion Products as Structural Fill at the Routes 213/301 and Interstate 695 Overpass. September 2004. Report No. PPRP-132.

PPRP, 2007. Assessment of Water Quality Impacts Associated with Use of Coal Combustion Products as Structural Fill at the BBSS Site, June 2007. Report Nos. DNR 12-6182007-221 and PPRP-142.

PPRP, 2017a. Draft Technical Report Update Evaluation of Water Quality Conditions Associated with the Use of Coal Combustion By-products as Structural Fill at the Interstate 695 Key Bridge Approach.

Power Plant Siting Program (PPSP), 1982a. Coal Ash Disposition in Maryland 1950 through 1980, Vol. 1 and 2, September 1982. Report No. PPSP-MP-41.

PPSP, 1982b. Vienna Fly Ash Disposal Site Problem Definition Study Final Report, June 1982. Report No. PPSP-V-82-1.

PPSP, 1983. Environmental Aspects of the Faulkner Fly Ash Storage Site, Report No. PB-83-184374.

Siegel, Andrew, 1996. County allows BGE to put coal ash at Brandon Woods Community hails ruling, which followed long battle with utility. *Baltimore Sun*, December 10, 1996. http://articles.baltimoresun.com/1996-12-10/news/1996345101_1_fly-ash-coal-ash-bge, accessed 7/5/17.

Talen Energy, 2020a. CCR Rule Compliance Data and Information – Montour. https://www.talenenergy.com/ccr-montour/, accessed December 2020.

United States Environmental Protection Agency, 2012a. Final Decision and Response to Comments, Solley Road Landfill, Browning Ferris, Inc., Glen Burnie, MD. EPA ID MDD000797365, July 2012. https://www.epa.gov/sites/production/files/2015-09/documents/fdrtc_mdd00797365.pdf, accessed 4/29/21.

United States Environmental Protection Agency, 2020a. Hazardous Waste Cleanup: Browning Ferris Incorporated Solley Road Landfill in Glen Burnie, MD. https://www.epa.gov/hwcorrectiveaction/hazardous-waste-cleanup-browning-ferris-inc-bfi-solley-road-glen-burnie-md, last updated May 22, 2020, accessed 5/3/21.

United States Environmental Protection Agency, 2020b. Hazardous Waste Cleanup: Hawkins Point Hazardous Waste Landfill in Baltimore, Maryland. Last Updated June 29, 2016. https://www.epa.gov/hwcorrectiveaction/hazardous-waste-cleanup-mes-hawkins-point-hazardous-waste-landfill-baltimore-md, accessed 6/9/17.

Wheeler, Timothy, 2010. MD. Sues Mirant over pollution from Prince George's landfill. *The Baltimore Sun*, April 3, 2010. http://articles.baltimoresun.com/2010-04-03/features/bal-md.gr.coalash03apr03_1_coal-ash-disposal-300-acre-landfill-dawn-stoltzfus, accessed 7/5/17.

Wheeler, Timothy, 2013. Coal-ash pollution at three Maryland landfills to be cleaned up. *The Baltimore Sun*, January 13, 2013. http://www.baltimoresun.com/features/green/blog/, accessed 7/5/17.