



*Commonwealth of Virginia*

*VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY*

NORTHERN REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193

703-583-3800

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Matthew J. Strickler  
Secretary of Natural and Historic Resources

David K. Paylor  
Director  
804-698-4000

Thomas A. Faha  
Regional Director

## **DRAFT SOLID WASTE FACILITY PERMIT PERMIT NUMBER 586**

**Facility Name:** King George County Landfill and Recycling Center

**Facility Type:** Sanitary Landfill **Latitude:** N 38° 16' 40"

**Site Location:** King George County, Virginia **Longitude:** W 77° 18' 47"

**Location Description:** The King George County Landfill and Recycling Facility is located at 10376 Bullock Drive, in King George County, Virginia 22485; approximately 1.5 miles North East from the intersection of Kings Highway (Route 3) and Birchwood Creek Road (State Road 665); approximately 0.5 miles North West from the intersection of Bullock Drive and Birchwood Creek Road (State Road 665); and approximately 10 miles East of Fredericksburg, Virginia. The site is accessible at the southern entry by paved Bullock Drive, as well as by the Dahlgren Branch of the CSX Railroad Line.

**Background:** The facility is publicly owned by the County of King George, and privately operated by King George Landfill, Inc., and includes a sanitary landfill, convenience center, and rail car transfer station that receives waste from within, and outside of the Commonwealth of Virginia. Waste may be transported to the facility either by road or railway. The wastes accepted include wastes listed in Module II, which is based on the information provided on DEQ Form SW PTB, dated March 12, 2020.

The total area of the facility is approximately 631 acres, which includes 378 acres within the facility boundary, and 291 acres within the disposal unit boundary. The landfill area is divided into 36 cells designed for Municipal Solid Waste (MSW) disposal, designated as follow: 1A, 1B, 1C, 2A, 2B, 2C, 3A, 3B, 4A, 4B, 4C, 5A, 5B, 6A, 6B, 7A, 7B, 8A, 8B, 9A, 9B, 10A, 10B, 11, 12, 13, 14A, 14B, 15, 16A, 16B, 17A, 17B, 18A, 18B, and 18C.

The design elevation of the King George Landfill is 375 feet (ft) above the mean sea level (msl). The total waste capacity of the landfill, as provided in the Design Report and Part B permit

application, is approximately 67 million cubic yards (yd<sup>3</sup>). The landfill's daily maximum disposal limit is 10,000 tons per day, however, based on the projected average annual intake of 1,600,000 tons, and assuming that the facility operates 307 days a year, an estimated average waste acceptance rate is approximately 5200 tons per day. Assuming that density of compacted waste is 1.0 ton/yd<sup>3</sup>, the estimated site life is 21 years, or until 2041.

**Permit Modification:** This is the 17<sup>th</sup> permit modification to Solid Waste Permit Number 586 (SWP586) which was originally issued on August 17, 1995. This major permit modification authorizes the owner and the operator to utilize three (3) final closure design options, in addition to the three (3) other final closure options that had been approved in the past. Two (2) of the additional final closure design options will exclude, either 18 inches of infiltration layer of compacted clay, or Geosynthetic Clay Liner (GCL) and are only authorized to be constructed on the landfill sideslopes. All approved final closure design options are specified in Permit Module XII.

In addition, this permit modification incorporates the following documents into the permit: Design Drawings, revised March 2020; Design Report, revised November 2018; Liquid Management Systems, revised March 2021; Landfill Gas Management and Remediation Plan, dated July 3, 2019; Odor Management Plan, revised March 2021; Groundwater Monitoring and Reporting Plan, revised April 2017; Closure Plan, revised March 2020; and Post Closure Plan, revised November 2018.

All previous permit modifications and variances are outlined in details in Module I, Section I.G., and previous approval letters are found in Permit Attachment I-1.

**THIS IS TO CERTIFY THAT:**

Owner  
King George County  
10459 Courthouse Drive, Suite 200  
King George, Virginia 22485

Operator  
King George Landfill, Inc.  
10376 Bullock Drive  
King George, Virginia 22485

is hereby granted a permit to construct, operate, and maintain the facility as described in the attached Permit Modules I, II, III, X, XI, XII, and XIII, and Permit Documents incorporated by reference. These Permit Modules and Permit Documents are as referenced hereinafter and are incorporated into and become a part of this permit.

The herein described activity is to be established, modified, constructed, installed, operated, used, maintained, and closed in accordance with the terms and conditions of this permit and the plans, specifications, and reports submitted and cited in the permit. The facility shall comply with all regulations of the Virginia Waste Management Board. In accordance with Chapter 14, § 10.1 - 1408.1(D) of the Code of Virginia, prior to issuing this permit, any comments by the local government and general public have been investigated and evaluated and it has been determined that the facility poses no substantial present or potential danger to human health or the environment. The permit contains such conditions and requirements as are deemed necessary to comply with the requirements of the Virginia Code, the regulations of the Board, and to prevent substantial or present danger to human health or the environment.

Failure to comply with the terms and conditions of this permit shall constitute grounds for the revocation or suspension of this permit and for the initiation of necessary enforcement actions.

The permit is issued in accordance with the provisions of § 10.1-1408.1.A, Chapter 14, Title 10.1, Code of Virginia (1950) as amended. Variances that have been approved for this facility are included in Permit Attachment I-1.

Issued: August 17, 1995  
Part A Approval: August 16, 1994

Modification 1: November 6, 1995  
Modification 2: November 7, 1996  
Modification 3: April 21, 1997  
Modification 4: February 17, 1999  
Modification 5: April 20, 1999  
Modification 6: November 15, 1999  
Modification 7: October 30, 2002  
Modification 8: July 27, 2007  
Modification 9: January 17, 2008  
Modification 10: March 31, 2008  
Modification 11: July 14, 2008  
Modification 12: May 29, 2009  
Modification 13: July 12, 2012  
Modification 14: December 12, 2012  
Modification 15: December 28, 2016  
Modification 16: October 21, 2019

Variance 1: August 17, 1995  
Variance 2: October 30, 2002

**APPROVED:** \_\_\_\_\_

Thomas A. Faha  
Regional Director

**DATE:** \_\_\_\_\_

Modified

## **PERMIT MODULES REFERENCE LIST**

**PERMIT MODULE I – GENERAL PERMIT CONDITIONS**

**PERMIT ATTACHMENT I-1, PREVIOUS PERMIT APPROVAL LETTERS**

**PERMIT MODULE II – CONDITIONS OF OPERATION**

**PERMIT MODULE III – SANITARY LANDFILL DESIGN**

**PERMIT MODULE X – DETECTION MONITORING**

**PERMIT MODULE XI – ASSESSMENT MONITORING**

**PERMIT MODULE XII – CLOSURE**

**PERMIT MODULE XIII – POST CLOSURE CARE**

**DRAFT**

## PERMIT DOCUMENTS

The documents listed below are hereby incorporated into this permit and the permittee is subject to all conditions contained therein. It is the responsibility of the permittee to properly maintain and update these documents. Any version with a revision date other than as listed below is not considered to be the official approved version and is subject to Department review and approval prior to being recognized as the “permitted” version.

### 1. Part B Application:

- 1.a. *King George County Landfill and Recycling Facility, Solid Waste Permit Application, Part B Design Drawings, King George County, Virginia, August, 1994, Revised February, 1995, Revised for Major Permit Modification for the Vertical Expansion, October, 2014, Revised March 2020, prepared by Golder Associates, last revised March 2020.*
- 1.b. *Closure Plan, King George County Sanitary Landfill & Recycling Facility, Permit Modification, Solid Waste Permit # 586, prepared by Golder Associates, revised March 2020.*
- 1.c. *Post-Closure Plan, King George County Sanitary Landfill & Recycling Facility, Permit Modification, Solid Waste Permit # 586, prepared by Golder Associates, revised November 2018.*
- 1.d. *Design Report, King George County Sanitary Landfill & Recycling Facility, Permit Modification, Solid Waste Permit # 586, prepared by Golder Associates, revised November 2018.*
- 1.e. *Liquid Management Systems, prepared by Waste Management, revised March 2021.*
- 1.f. *Landfill Gas Management and Remediation Plan, Revision 5.0, King George County Landfill, Permit No. 586, prepared by Golder Associates Inc., dated July 3, 2019.*
- 1.g. *Odor Management Plan, King George Landfill, Inc., King George County, Virginia, Solid Waste Permit No. 586, prepared by Waste Management, initially dated August 2011, last revised March 2021.*
- 1.h. *Groundwater Monitoring and Reporting Plan, Revision 5.0, King George County Landfill, Permit No. 586, King George, Virginia, prepared by Golder Associates, Inc., revised April 2017.*

### 2. Other permit documents:

- 2.a. *Construction Quality Assurance Plan and Technical Specifications, King George County Landfill, SWP586, King George County, Virginia, prepared by Golder Associates, revised June 2016.*
- 2.b. *King George County Landfill, King George, Virginia, Revised Gas Collection and Control System Design Plan, prepared for King George Landfill, Inc., by Carlson Environmental Consultants, dated June 2012, last revised April 17, 2013.*

- 2.c. *King George County Landfill & Recycling Facility, Part B Permit Application*, prepared by RUST Environmental and Infrastructure, dated August 1994.
3. The following documents have been submitted to satisfy permit or regulatory requirements; however, are considered reference documents and are not incorporated into SWP586. This list may not be all-inclusive:
  - 3.a. *Part A Permit Application, King George Sanitary Landfill*, prepared by SCS, dated March 1994.
  - 3.b. *King George County Landfill and Recycling Facility, Construction Certification for Cell 7B, Permit # 586, King George County, Virginia*, prepared for Waste Management by Draper Aden Associates, and dated September 26, 2016.
  - 3.c. *King George County Landfill and Recycling Facility, Construction Certification for Cell 16A, Permit # 586, King George County, Virginia*, prepared for Waste Management by Draper Aden Associates, and dated October 19, 2017.
  - 3.d. *King George County Landfill and Recycling Facility, Construction Certification for Cell 16B, Permit # 586, King George County, Virginia*, prepared for Waste Management by Draper Aden Associates, and dated July 11, 2018.
  - 3.e. *King George County Landfill and Recycling Facility, Construction Certification for Cell 7A, Permit # 586, King George County, Virginia*, prepared for Waste Management, prepared by Draper Aden Associates, and dated October 30, 2015.
  - 3.f. *King George County Landfill and Recycling Facility, Construction Certification for Cell 6B & 1C, Permit # 586, King George County, Virginia*, prepared for Waste Management, prepared by Draper Aden Associates, and dated October 10, 2014.
  - 3.g. *King George Landfill and Recycling Facility, Construction Certification for Cell 6A/6B, Permit # 586, King George County, Virginia*, prepared for Waste Management, prepared by Draper Aden Associates, and dated December 18, 2013.
  - 3.h. *King George County Landfill and Recycling Facility, Construction Documents for 10-Acre Closure, Permit # 586, King George County, Virginia, July, 2013, Volume 1 of 1*, dated July 15, 2013.
  - 3.i. *King George Landfill and Recycling Facility, Construction Certification for Cell 1B, Permit # 586, King George County, Virginia*, prepared for Waste Management, prepared by Draper Aden Associates, and dated October 2012.
  - 3.j. *King George Landfill Incorporated, Air Permit #40903*, dated September 12, 2019, as amended.
  - 3.k. *King George Landfill, Virginia Pollutant Discharge Elimination System (VPDES) Industrial Stormwater General Permit #VAR051414*, dated July 1, 2019, as amended.
  - 3.l. *King George County Landfill, Registration for Aboveground Storage Tank (AST), FACID #3038249*, dated May 22, 2014.