



Groundwater Discharge Permit Renewal Application For The Closed Al-Ray Rubble Landfill

What You Need to Know

Project Manager:	Sara Haile, Maryland Department of the Environment (MDE) Solid Waste Program; 410-537-3315 or toll-free 1-800-633-6101 x3315
Owner/Operator:	Anne Arundel County Department of Recreation and Parks
Application:	The application is to renew the State Groundwater Discharge Permit for the continued discharge of wastewater generated by rainwater percolating through the unlined rubble cell floor at the closed Al-Ray Rubble Landfill (Sands Road Park) into groundwater via infiltration/percolation. This landfill is a closed, nonhazardous solid waste acceptance facility located at 4910 Sands Road, Lothian in Anne Arundel County, Maryland.

Site Information

LOCATION: The closed landfill is located at 4910 Sands Road, Lothian in Anne Arundel County, Maryland. The unlined landfill consists of a 76-acre fill area on a 180-acre site.

FACILITY: The landfill was owned and operated by Al-Ray Super Concrete Corporation from 1984 through 1994 and accepted construction and demolition debris, white goods, stumps, and other land clearing debris. After closure of the landfill, the interests in the property were transferred to Anne Arundel County Department of Recreation and Parks on December 24, 2003. Upon closure, the landfill was covered with two feet of soil, a low permeability geomembrane liner overlain by a drainage layer, and a minimum of two feet of final soil cover. In areas of steep slopes, a variance was granted to use soil cover in lieu of the geomembrane liner.

SITE STRATIGRAPHY: The site lies within the Atlantic Coastal Plain. The generalized geologic profile at the site consists of a surface layer identified as Patuxent River Terraces underlain by the Nanjemoy Formation. The Nanjemoy deposit consists of green and brown fine sand and lenses of gray clay to fine silty sand.

GROUNDWATER AND SURFACE WATER MONITORING Since the landfill does not have an engineered bottom liner or leachate collection system, Anne Arundel County is required to maintain a Groundwater Discharge Permit for the site which requires semi-annual sampling of six groundwater monitoring wells (MW-6 thru MW-11) surrounding the landfill. Additionally, three surface water locations are sampled along Ferry Branch. The regional groundwater flow is from east to west towards the Patuxent River. There are no potable wells located downgradient of the landfill between the fill area and the Patuxent River or Ferry Branch.



Groundwater Discharge Permit Renewal Application For The Closed Al-Ray Rubble Landfill

What You Need to Know

The groundwater and surface water is sampled for 22 metals, 11 indicator parameters, and 48 volatile organic compounds twice a year. During the January 2020 sampling event, arsenic exceeded the Maximum Contaminant Level (MCL) in MW-7. Exceedances for arsenic in this well are consistent with historical data for the site. Additionally, well MW-10 exceeded the MCL for cadmium. Volatile organic compounds do persist at very low levels in monitoring wells. The site upgradient well, MW-6, has at times also detected low level VOCs and cadmium at concentrations over the MCL. Surface water samples were below the COMAR Toxic Substances Criteria for Ambient Surface Waters for arsenic along Ferry Branch. The surface locations, including the most upstream location SW-1, are at times over the cadmium chronic aquatic life surface water criterion, but below the acute aquatic life and human health consumption criteria. Location SW-1 is not influenced by the landfill.

METHANE GAS MONITORING: Anne Arundel County conducts quarterly gas monitoring for methane gas migration from the landfill at twelve gas wells on the site. Methane gas concentrations were non-detect during March and April 2020 events. Methane gas is not a concern at this time. The department conducts routine inspections of the closed landfill and these inspections have shown routine compliance.

Application Process

February 14, 2020, MDE received a Groundwater Discharge Permit Renewal Application.

June 29, 2020, MDE received a request to hold a public hearing, and extension of the public comment period on MDE's Tentative Determination on the Groundwater Discharge Permit Renewal.

Public Informational Meeting/Public Hearing

MDE published a Notice of Application Received and Opportunity for Informational Meeting in the March 26th and April 2nd, 2020 editions of the Capital newspaper.

MDE published a Notice of Tentative Determination and Opportunity for Public Hearing in the June 16th and 23rd, 2020 editions of the Capital newspaper.

MDE published a Notice of Tentative Determination, Informational Meeting, and Public Hearing in the October 15th and 22nd, 2020 editions of the Capital newspaper.

Written comments on the application may be submitted to Ms. Kaley Laleker, Director, Land and Materials Administration, 1800 Washington Boulevard, Suite 610, Baltimore, Maryland 21230.