

FACT SHEET

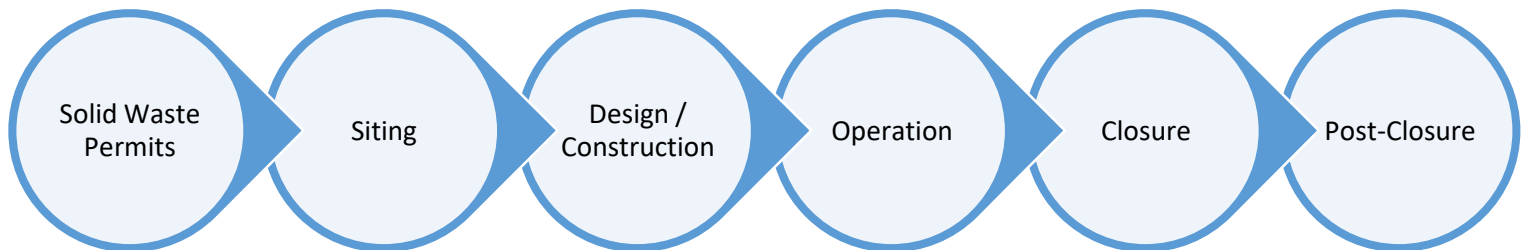
Landfills 101

Overview

Landfills are more than just a place where trash ends up. They are engineered, designed, and constructed to contain waste and waste byproducts, and to prevent pollution from getting into the environment. DEQ is the permitting authority for landfills in Virginia – working to ensure that regulations are followed from landfill siting to post-closure care.

Isn't a landfill just a dump?

- No! Dumps are not regulated, and are actually illegal in Virginia. Landfills are highly regulated under both federal and state laws, and require permits issued by DEQ.
- Dumps are not designed, not staffed, and have no measures to stop waste or pollutants from getting into the environment. Uncovered waste can cause odor issues, attract pests, and has a higher risk of an open fire.
- Landfills are engineered structures, designed to contain waste and waste byproducts (gas and leachate*) to stop them from getting into the environment. They are staffed, and require monitoring and inspections – as well as financial assurance.
- Unlike a dump, lots of planning goes into a new landfill. The requirements are different for different types of landfills. Using the example of a Solid Waste Landfill, the steps needed include:



Can any waste be put into any landfill?

- No! There are actually different types of landfills, designed and managed to handle different types of waste.
- Below are just a few examples of some different types of landfills:

- [Solid Waste Landfill](#)
 - Sanitary Landfill
 - Construction, Demolition, Debris (CDD) Landfill
 - Industrial Landfill
 - Coal Combustion Residuals (CCR) Landfill
- [Solid Waste Treatment & Storage Facilities](#)
 - Transfer stations
 - Composting facilities
 - Waste-to-energy facilities
- [Hazardous Waste Facilities](#)



*What is leachate?

If you've been involved in discussions about landfills, then you may have come across the term 'leachate.' But what exactly is it? Leachate is liquid that has passed through or emerged from solid waste. There are [leachate control requirements](#) for landfills, that specify how leachate must be managed. When a landfill is being planned, the facility's Design Report or Leachate Management Plan outlines the site-specific design of the leachate collection and storage system.

What happens when a landfill fills up?

When a landfill reaches its capacity, it can no longer accept waste. Each landfill has its own closure requirements, which include adding a designed final cover over the waste (or 'capping' the landfill). Then there is the post-closure care, which includes monitoring activities (for landfill gas and groundwater), maintaining and repairing the final cover system / cap, and operating leachate and landfill gas systems. Closed and capped landfills can be converted into parks, open spaces – even solar power projects, and other uses that don't require infrastructure which could impact the landfill cap.

Where can I learn more about landfills in Virginia?

DEQ has online resources for anyone that wants to learn more about landfills in the Commonwealth:

- View landfill applications using the [Permitting Enhancement & Eval. Platform \(PEEP\)](#)
- Get information about proposed permits and Public Notices on DEQ's [Land Protection](#) webpage
- Take a look at Solid Waste Permits using the [Virginia Environmental Data Hub](#)

How can I get involved?

There are opportunities for public participation in the landfill planning and permitting processes. If you're interested in learning more about proposed landfill projects, or providing comments on pending landfill applications, then consider:

- Attending local government meetings
- Participating in DEQ-held Public Comment Period & Public Hearings
 - Public Meetings may also be offered
- Looking for notifications on the [Virginia Regulatory Town Hall](#) website



Have questions about a specific landfill facility? Please contact the Land Protection Manager in your Regional DEQ Office.

Blue Ridge Regional Office: 540-562-6700

Northern Regional Office: 703-583-3800

Piedmont Regional Office: 804-527-5020

Southwest Regional Office: 276-676-4800

Tidewater Regional Office: 757-518-2000

Valley Regional Office: 540-574-7800

(Not sure which office to reach out to? Use this [map](#) to enter your address, or the address of a landfill of interest, and find out which DEQ Regional Office is the best contact.)



LANDFILLS 101

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Handout: Acronyms, Definitions, and Links

CCR (Coal Combustion Residuals) – also called coal ash, and includes fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers

CCR Rule – [EPA Disposal of Coal Combustion Residuals from Electric Utilities Rule](#)

Construction/Demolition/Debris (CDD) Landfill – a landfill used primarily for the disposal of construction waste, demolition waste, and land clearing materials. A CDD landfill may also receive split tires and white goods (appliances)

DEQ – Virginia Department of Environmental Quality
Homepage: [Virginia DEQ | Home](#)

EPA – United States Environmental Protection Agency
[U.S. Environmental Protection Agency | US EPA](#)

Financial Assurance Regulations for Solid Waste Disposal, Transfer and Treatment Facilities – landfills are required to have financial assurance to cover the cost of closure, post closure care and groundwater corrective action, if applicable

Hazardous Waste – a type of solid waste that is either listed in EPA regulations as a known hazardous waste or it meets certain characteristics (ignitable, corrosive, reactive, or toxic) that could harm human health or the environment

Industrial Landfill – a landfill used primarily for the disposal of a specific industrial waste or a waste that is a byproduct of a production process

Landfill Cap – also known as final cover; a system of protective layers of synthetic and/or soil materials installed over the landfill once it is closed which meets certain criteria to minimize water infiltration, control gas emissions, ensure long-term stability, and isolate wastes to prevent contamination

Leachate – the liquid that has passed through or emerged from solid waste

PBR (Permit by Rule) – an alternative to a full permit, available for some facilities under specific circumstances

PCC (Post Closure Care) – refers to monitoring and maintenance activities that occur after a landfill has closed to ensure environmental and public health safety for a specified number of years

RCRA (Resource Conservation and Recovery Act) – federal law that gives EPA the authority to control hazardous waste from ‘cradle to grave’ and regulates non-hazardous solid waste

Sanitary Landfill – a landfill used primarily for the disposal of residential (household) waste. A sanitary landfill also may receive other types of nonhazardous solid wastes, such as commercial waste, construction/demolition/debris waste, industrial waste, institutional waste, agricultural waste, and dewatered sludges

Solid Waste – any garbage, trash, refuse, sludge, and other abandoned or discarded material from residential, commercial, construction/demolition, industrial, institutional, or agricultural operations. Solid waste can be solid, liquid, semi-solid, or contained gaseous material

SWP (Solid Waste Permit) – facilities that store, treat, dispose or otherwise manage solid wastes are required to have a solid waste permit prior to construction, operation, or modification of a solid waste management facility

Virginia Coal Combustion Residuals Laws

- [§ 10.1-1402.03. Closure of certain coal combustion residuals units.](#)
- [§ 10.1-1402.04. Closure of certain coal combustion residuals units; Giles and Russell Counties.](#)

Virginia Solid Waste Management Regulations

[9VAC20-81-120. Siting requirements.](#)

[9VAC20-81-130. Design and construction requirements.](#)

[9VAC20-81-140. Operational requirements.](#)

Virginia Solid Waste Planning and Recycling Regulations

Virginia Waste Management Act

Virginia Waste Management Board

Use the [Permitting Enhancement and Evaluation Platform \(PEEP\)](#) to search for landfill permit applications

Use the [Land Protection | Virginia DEQ](#) page to view public notices for solid and hazardous waste permits

Use the [Virginia Environmental Data Hub](#) to view a database of solid waste permits