



Municipal Solid Waste Landfills

All you wanted to know but were afraid to ask.

Just what is a landfill? Well, you may not have ever visited one, but you know it's the place where they take your household garbage, right?

That's true. There is, however, a little more to it than that.

First, here's a simple definition. A landfill is a large outdoor site specifically designed for the disposal of waste. Now, not all landfills are the same. There are different kinds of landfills that accept different kinds of waste. There are industrial waste landfills, hazardous waste landfills, construction and demolition debris landfills and municipal solid waste (MSW) landfills.

But when you think of a landfill, you probably are thinking of the landfill that accepts your household trash or garbage. That's a MSW landfill.

Want to learn more? Here are some typically asked questions about MSW landfills.

- **Why do we need any MSW landfills?** Waste reduction, reuse and recycling divert large parts of our waste from MSW landfills, but not all of it. In addition, we keep making more waste each year. That waste must be managed safely to protect human health and the environment.
- **What is MSW?** Different states have different definitions, but MSW is commonly defined as household trash or garbage. This includes paper, cans, bottles and food scraps. MSW landfills are designed to accept these types of waste – much of which should be recycled – along with other specific kinds of waste. In South Carolina, MSW landfills cannot accept hazardous waste, lead-acid (car and truck) batteries, yard trimmings, tires (whole), used motor oil and large appliances. For South Carolina's definition of MSW, see the "FYI: Garbage 101" fact sheet.
- **How is MSW managed?** Waste is properly managed three ways. We recycle it, burn it in a MSW incinerator or dispose of it in a MSW landfill. The latter is the most common.
- **How much garbage is disposed of in MSW landfills?** Americans generated about 251 million tons of MSW in 2006 (the latest numbers available) according to the U.S. Environmental Protection Agency (U.S. EPA). Of that amount, 55 percent or 138 million tons was disposed of in MSW landfills. The rest was recycled or composted (32.5 percent or 82 million tons) or incinerated (12.5 percent or about 31 million tons).
- **How much does it cost to dispose of waste at a MSW landfill?** MSW landfill operators charge a fee on a per ton basis. The fee is called a tipping fee and is charged to the waste hauler who empties or "tips" garbage out of the truck. The average tipping fee in South Carolina was \$42 per ton according to the "S.C. Solid Waste Annual Report for FY07."
- **How do we pay for waste management?** It depends. Many people pay for waste management – including recycling services – through their property taxes. Other residents pay their fees through monthly or annual fees billed by their local government. Some have to pay waste haulers directly. Still, others take their garbage and recyclables to drop-off centers that are, of course, funded by local governments through taxes or fees.
- **How many MSW landfills are there?** Nationwide, the number of active MSW landfills has shrunk from nearly 8,000 in 1988 to 1,754 in 2006 according to the U.S. EPA. In South Carolina, there were 18 permitted MSW landfills operating in FY07.
- **Who owns MSW landfills?** Nationally, about two-thirds are owned by local governments while about one-third are privately owned. In South Carolina, local governments own 10 while eight are privately owned.
- **What laws or regulations must be followed at MSW landfills?** MSW landfills are well-engineered facilities

South Carolinians generated about 5 million tons of MSW in fiscal year (FY) 2007 (July 1, 2006 to June 30, 2007). Of that amount, 65 percent (about 3.2 million tons) was disposed of in the state's MSW landfills while 4 percent (224,919 tons) was sent to the state's only MSW incinerator (located in Charleston County). The remainder – 31 percent (1.55 million tons) – of the state's MSW was recycled.

that must meet strict U.S. EPA and S.C. Department of Health and Environmental Control (DHEC) regulations on their location, design, operation and closing. In South Carolina, all MSW landfills must be approved (receive a permit) by DHEC.

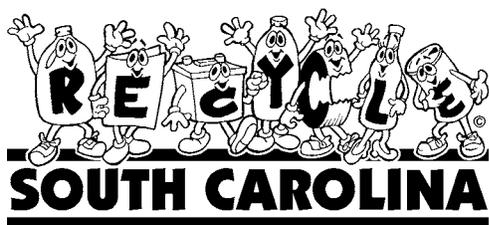
In addition, local zoning and land-use ordinances may limit MSW landfill site selection. For more information on the federal and state regulations on MSW landfills, see the “FYI: Landfill 102: How Landfills Work” fact sheet.

- **Why do MSW landfills have liners?** Liners in MSW landfills are designed and placed to stop the potential pollution of groundwater. Hazardous household materials such as cleaners and pesticides and other waste could contaminate groundwater if the liners were not in place.
- **Do MSW landfills smell?** Federal and state regulations require MSW to be covered daily with soil or another type of cover to control or reduce odor. MSW landfill operators also can control or reduce odors by only disposing of waste in a small working face (area). For more information, see the “FYI: Landfill 102: How MSW Landfills Work” fact sheet.
- **Who picks MSW landfill locations?** If it is a public landfill, a local government will select a potential site. If it is a private company, it will select a potential site and approach the local governments. In both cases, residents will have a chance to comment at public meetings. Once a potential site is selected, the local government or private company will apply to DHEC for a permit. There are numerous local, state and federal requirements that must be met to be given a permit including meeting all local zoning requirements, being consistent with the county solid waste management plan and meeting a demonstration of need criteria. Local zoning and land-use ordinances may limit MSW landfill site selection. Any landfill, including MSW landfills, are difficult to locate simply because the public frequently opposes new construction. People remember the poor practices of the past and are concerned about their health and environment as well as property values, noise, odor and traffic if a landfill is being considered in their community.

- **What happens when MSW landfills close?** First, before a MSW landfill is approved (given a permit from DHEC), a MSW landfill owner is required to have funding to not only properly close but also to monitor and fix any environmental problems that could occur. When a MSW landfill is closed, it is capped with a layer of clay, a plastic liner and a layer of soil (bottom to top of the cap). The cap is seeded to grow grass. The MSW landfill will be monitored for 30 years. For more information, see the “FYI: Landfill 102: How MSW Landfills Work” fact sheet.

S.C. Municipal Solid Waste Landfills (MSWLF)	
NAME OF MSWLF	COUNTY
Abbeville County MSWLF	Abbeville
Anderson Regional Landfill	Anderson
Bees Ferry Road MSWLF	Charleston
Berkeley County MSWLF	Berkeley
Georgetown County MSWLF	Georgetown
Greenwood County MSWLF	Greenwood
Hickory Hill MSWLF	Jasper
Horry County MSWLF	Horry
Lee County Landfill, LLC	Lee
Northeast Landfill, LLC	Richland
Oakridge MSWLF	Dorchester
Palmetto MSWLF	Spartanburg
Richland Landfill, Inc.	Richland
Three Rivers MSWLF	Aiken
Twin Chimneys Landfill	Greenville
Union County Regional MSWLF	Union
Wellford MSWLF	Spartanburg
Williamsburg County MSWLF	Williamsburg

SOURCE: DHEC’s Office of Solid Waste Reduction and Recycling



Office of Solid Waste
Reduction & Recycling
1-800-768-7348 ● www.scdhec.gov/recycle

DHEC’s Office of Solid Waste Reduction and Recycling FYIs provide general information on environmental topics. Readers are encouraged to reproduce this material. For more information about solid waste issues, please call 1-800-768-7348 or visit our Web site at www.scdhec.gov/recycle. Please send written correspondence to: DHEC’s Office of Solid Waste Reduction and Recycling, 2600 Bull Street, Columbia, SC 29201.