

LANDFILL

A landfill is a waste facility used for the disposal of solid or liquid materials by burial. Not so long ago, waste was placed in open dumps, however these days landfills are carefully engineered and can either be depressions in the ground or built on top of the ground, similar to football stadiums. It is against the law to dump rubbish or waste in places that are not licensed (as landfills) by the state government.

The aim of landfill management is to minimise the impacts of waste on the surrounding environment. The main hazards are leachate and greenhouse gas emissions. Managing leachate generally involves the use of heavy duty lining, leachate collection systems and choosing the right natural hydrogeological setting (the state government also has requirements on where it is appropriate to build landfill sites). There is, however, the potential for landfills to fail (to some extent) and leak leachate into ground and/or surface water (Zerowaste).

Landfills are a major source of methane, one of the climate-changing greenhouse gases. These gases are

formed as organic landfill waste (such as food and garden organics) rots and decomposes in the absence of oxygen. Most landfills are covered every day to help minimise the release of these gases, which create environmental damage and safety hazards, into the atmosphere. The gas can now be harnessed and used as a fuel for electricity generation.

When we throw products and materials into our rubbish bins, we often don't realise the potential environmental harm they can create in a landfill. In landfills, some materials have the ability to seep out as gases and liquid leachate, posing environmental and health risks to local communities, particularly in the case of hazardous wastes like paints and chemicals. Landfills are often unpopular with local residents because of smell, noise, vermin, blown litter and lower property prices.

Reference: Zero Waste America, online at <http://www.zerowasteamerica.org/Landfills.htm>

WHAT CAN I DO?

- The best way to reduce landfill pollution is to minimise domestic waste in the first place. Reduce your waste by checking your packaging and consumption habits, recycling what you can and compost organic waste.
- What is happening to your waste? Research your local landfill to find out how environmentally responsible it is. Do they harness methane gas? How does the leachate capture system work?
- Check out the other fact sheets on Leachate and Greenhouse Gases for more helpful information on the effects of landfill and the Waste Avoidance, Three R's and Household Waste fact sheets for information on reducing waste in your home.

MORE INFORMATION

- <http://www.bcse.org.au/default.asp?id=101> - using landfill gas for power.
- <http://www.zerowasteamerica.org/Landfills.htm> - a comprehensive site on the ins and outs of landfills.
- <http://www.botany.uwc.ac.za/inforeep/landfill1.htm> - South African site on the effects of landfills on communities.
- http://europa.eu.int/comm/environment/waste/landfill_index.htm - landfill disposal in Europe.