

# THE WASTE HIERARCHY



## What is it?

No single disposal method is appropriate for all materials and circumstances. The waste management hierarchy provides guidance for extracting the maximum amount of benefits from materials while generating the least amount of waste. The hierarchy ranks management methods in order of most environmentally preferred to least environmentally preferred. There is a primary focus on reduction and reuse, followed by recycling and composting, energy recovery, with landfill disposal as the least preferred option.

## Why this order?

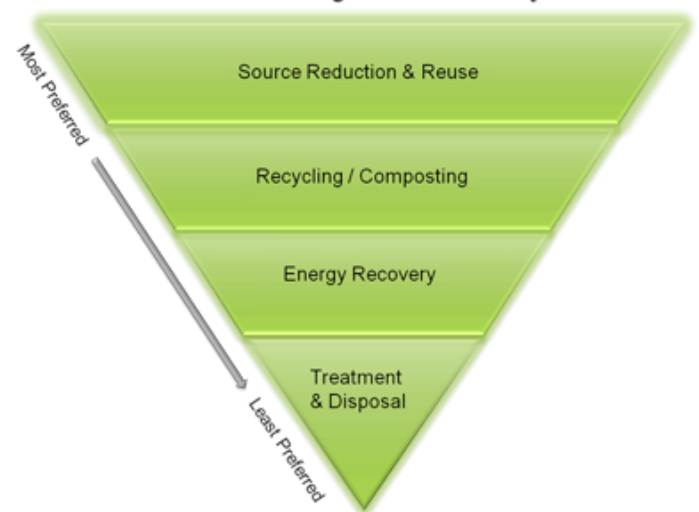
### *Source Reduction and Reuse*

As the title implies, this method focuses on preventing waste before it is made. This means getting the maximum amount of use from an item before discarding. Mending, borrowing, buying secondhand, in bulk, and choosing items with recyclable and reduced packaging all contribute to the cycle of reduce and reuse. Reducing resources and materials conserves natural resources, saves energy, reduces pollution, and saves your money.

### *Recycling/Composting*

Recycling is a process of collecting items that would be considered waste, recovering the source materials, and remanufacturing the material into new products. Composting is included in this section because it “recycles” the organic material of food scraps which decompose into a nutrient-rich material used to fertilize plants and crops. Recycling and composting saves energy, conserves natural resources, reduces pollution and greenhouse gases, creates jobs, reduces our need for new landfills, and keeps organic material out of landfills where they decompose and emit harmful gases into the air.

## Waste Management Hierarchy



### *Energy Recovery*

Energy recovery uses municipal waste that cannot be recycled and converts it into electricity, heat, or fuel through processes of combustion, gasification, pyrolyzation, anaerobic digestion, and landfill gas recovery. Although energy recovery is not necessarily renewable - it requires a steady stream of waste - it reduces carbon dioxide emissions from fossil fuel derived energy and methane emissions from landfills. This factor places energy recovery above landfills on the management hierarchy.

### *Treatment and Disposal*

At the bottom of the hierarchy is the landfill. Material placed in a trash bin for collection does not get reused, recycled, or composted, but sits in the nearest landfill. Organic material in landfills decompose in the anaerobic environment and emit methane into the air. Some landfills are equipped to recover these emissions, but it is not a requirement.

*Sources and more information:*

<https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy>