

# Waste Wisdoms

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**Welcome to our TREAT and DISPOSE edition - the 6th and 7th last tiers of the Waste Hierarchy completing the reuse-repair-recycle model of a circular economy. In this edition, we investigate landfills and their challenges, introduce tip shops and more.**



## SHOULD LANDFILLS CONTINUE TO BE A PART OF OUR WASTE MANAGEMENT SOLUTION?

In the waste hierarchy, disposal is the last and least favourable option. Landfill, also known as tip, rubbish dump or dumping ground, is the oldest and most common form of waste disposal where solid waste is buried. When full, tips are covered with soil requiring vast amounts of land. High property prices in our cities means landfills are increasingly being located hundreds of kilometres away increasing their carbon footprint.

In Australia, there are approximately 600 officially registered landfills, another 2,000 unregistered sites and more older sites not well documented.

Landfills have existed for thousands of years, however today the nature

and toxicity of what we make and dispose of has serious implications.

The three most important problems with landfills are toxins, leachate and greenhouse gases. They present long-term threats to our health, atmosphere, groundwater and surface waters. Landfills are estimated to continue producing toxic gases for more than 50 years.

Proper design of landfills - like using a clay base or plastic liner covered with clay and properly rehabilitated - it is argued, will reduce potential leaks of toxins into ground water. Some landfills are equipped with vents to allow underground gases produced from decomposition to be released or captured and used.

However, landfill waste breaks down slowly and plastic liners degrade and break. Pipes that collect generated liquids (leachate) can clog and some landfills are not capped properly. Also, illegal construction and use of landfills in environmentally sensitive regions continues. These practices left unaddressed pose unacceptable risks to our environment and human health.

Most world cities have been built over centuries of buried landfills. The demand for landfill space is connected to our increased consumption.



**Did you know that 33% of Victoria's solid waste is disposed in landfills?**

*(Source: epa.vic.gov.au not including volumes of prescribed industrial wastes managed, recovered or landfilled)*



### THE BAD NEWS

China's largest tip, Jiangcungou, in Shaanxi Province, is already full 20 years earlier than planned. Designed to take 2,500 tonnes of waste daily it received a staggering 10,000 tonnes a day.



### THE GOOD NEWS

Germany, Switzerland, Sweden, the Netherlands, Austria, Belgium, Denmark and Norway with a combined population of about 150 million are disposing 3% or less of their waste in landfills, almost eliminating them.





## TREAT: HAZARDOUS WASTE

Hazardous waste is the by-product of everyday goods and services, such as the manufacturing of motor vehicles, paint and plastics, dry-cleaning services, fast food outlets, dental surgeries and hospitals.

In Victoria, hazardous waste is categorised into three types A, B, and C. Category A hazardous waste is banned from landfill and requires treatment before disposal. Category B and C hazardous waste is accepted by particular landfills.

In 2018-2019, 58% of Australia's hazardous waste was sent to landfill (ABS Report Nov 2020).

Hazardous materials that are toxic/corrode metal/burn/explode should not go to landfills.

Highly toxic items, such as chemicals, should never be put in your rubbish bins or poured down the drain. This includes, oven cleaner, batteries, motor oil, paints, varnishes, thinners, fluorescent bulbs, mercury switches. It needs to go to a hazardous waste drop-off site.

For more information visit *Detox your Home* on the Sustainability Victoria website ([sustainability.vic.gov.au](http://sustainability.vic.gov.au)).

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We acknowledge and respect the Traditional Owners and Custodians of the land on which we work and deliver our services.

## WHAT HAPPENS IN A LANDFILL?

Buried waste breaks down by bacteria, producing gases and liquid which filters through the waste collecting toxins. Many items found in landfills like televisions, computers and other electronic appliances contain toxic substances like mercury, arsenic, cadmium, PVC, solvents, acids and lead. The liquid formed leaks into surrounding areas or can become airborne. Birds, insects, rodents can take in this water and spread the toxins.

When organic waste such as food scraps and garden waste is compacted down and covered in landfills without oxygen it breaks down in an anaerobic process. This eventually releases methane, a greenhouse highly inflammable gas, 25 times more potent than carbon dioxide and when built up is extremely dangerous.

Claims such as 'biodegradable' and 'photodegradable' aren't always accurate. Plastics labelled 'biodegradable' due to the addition of starch simply disintegrate into tiny non-degradable pieces after the starch has been degraded. Photodegradable plastics need sunlight to degrade so cannot break down in landfills.



## LIFECYCLE THINKING

As citizens we need to shift towards **Lifecycle Thinking** which means before we buy something think do we need this, can we get it second-hand, if we buy it, whom and where do we buy it from, how is it packaged and treated, can it be repaired, reused or repurposed and finally what does the end of its life look like – can it be organically broken down e.g. a wood table versus a plastic table's lifecycle would look quite different.

Before you send something to landfill think of other options first. You will be surprised at what can be repurposed, reused or composted.

### DONATE

- Opportunity Shops
- Charity Bins
- **Tip Shops** sell recycled goods and are connected to Council tips and often operated by charities or community groups. Check out Darebin Resource Recovery Centre, Mornington Outlook Centre, Knox Transfer Station or Sunbury Tip Shop

### GIVEAWAY

- Use community online networks such as the Kensington Good Karma Network on Facebook
- FreeCycle Australia (a free swap network, [freecycle.org](http://freecycle.org))
- Family, neighbors and friends

### SELL

- Community Facebook groups like Inner West (Melbourne) Buy, Swap and Sell
- Facebook Marketplace
- Ebay.com.au
- Gumtree

