

# National Waste Reporting 2013

## OVERVIEW – AUSTRALIA'S WASTE AND RESOURCE RECOVERY INFRASTRUCTURE

The 48 million tonnes of solid waste materials generated each year in Australia's material intensive economy are handled through Australia's 2846 waste management facilities (Table 1) which are generally grouped into transfer stations, resource recovery facilities and landfill. To view the location and types of waste management facilities across Australia, visit the interactive National Waste Reporting mapping tool.

Table 1 Australia's distribution of waste management infrastructure (estimate at August 2013)

Jurisdiction	Landfill	Resource recovery facility	Transfer station	Total
NSW	369	121	166	656
VIC	92	233	239	564
QLD	265	88	236	589
WA	187	86	26	299
SA	117	247 <sup>1</sup>	133	497
TAS	19	14	67	100
NT	118	10	4	132
ACT	1	6	1	8
<b>Total</b>	<b>1168</b>	<b>806</b>	<b>872</b>	<b>2846</b>

Source: Compiled by Rawtec/WCS based on jurisdictions' input

<sup>1</sup> - Includes 153 container deposit recycling depots in SA

### Transfer stations

Transfer stations are consolidation points in the waste logistics chain, where collected waste can be aggregated, sometimes compacted, and loaded to special purpose, long-haul vehicles or freight containers for transport to distant disposal sites.

As shown in Table 1, Australia has some 872 transfer stations in operation. These vary in scale and complexity. Many small-scale facilities have been established in regional/remote areas, often in lieu of a small landfill, where local communities without waste collection services can consolidate waste for bulk collection. Large-scale facilities in major cities are equipped to compress and ram waste loads into long-haul vehicles to maximise transport efficiency.

### Resource recovery facilities

Resource recovery facilities are designed to sort and process discarded materials using a variety of mechanical, biological and thermal technologies. Investment in resource recovery technologies has increased substantially over the last decade so that by 2010-11, some 60 per cent of waste generated was recovered and recycled<sup>1</sup>.

The main types of resource recovery infrastructure are:

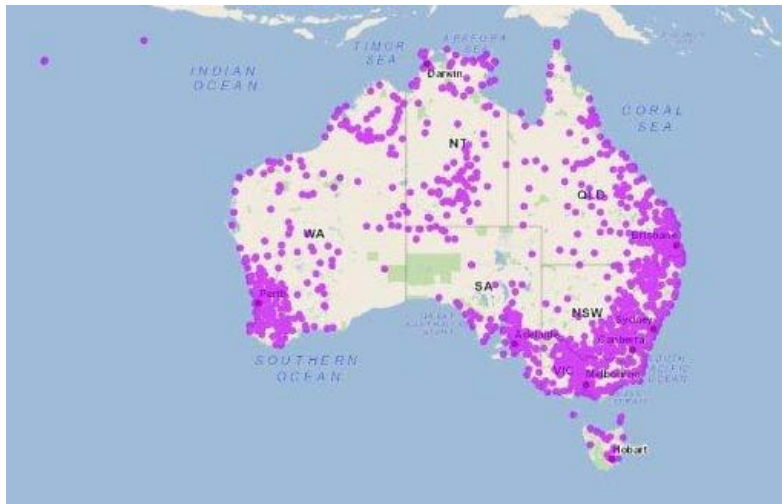
- Alternative Waste Treatment facilities (AWT)
- Garden Organics Processing facilities
- Thermal Waste Technologies
- Material Recovery facilities (MRF)
- Recycling facilities.

<sup>1</sup> Blue Environment and Randell Environment Consulting, *Waste generation and resource recovery in Australia* (2013)

## Landfills

Landfills dominate the waste infrastructure stock and receive some 40 per cent of Australia's waste. They are the favoured destination for mixed waste, essentially due to the availability and capacity of existing facilities, and the moderate cost of landfilling in comparison with options to recover more resources. Australia's 1168 operational (licensed and unlicensed) landfills receive around 20 million tonnes of waste each year.

Figure 1 Operational landfills across Australia, 2011



Source: National Waste Reporting 2013 interactive mapping tool

Landfills vary in size from small trench-based facilities which receive less than 1000 tonnes/year, to large, engineered facilities able to receive more than 100 000 tonnes/year. The recent *Analysis of Landfill Survey Data* by the Waste Management Association of Australia (WMAA) found that, based on survey returns, some 75 per cent of overall waste disposal takes place at large landfills.

A majority of landfill operators undertake pre-disposal resource recovery activities, particularly in the form of garden organics composting, C&D waste sorting and recycling, and collation of household recyclable materials. Pre-disposal resource recovery is becoming commonplace and several jurisdictions count the practice as a condition of approval for landfill facilities.

More information on Australia's waste management infrastructure is available in:

- Australia's waste and resource recovery infrastructure factsheet
- Jurisdictional waste profile factsheets:
  - Australian Capital Territory (ACT)
  - New South Wales (NSW)
  - Northern Territory (NT)
  - Queensland (Qld)
  - South Australia (SA)
  - Tasmania (Tas)
  - Victoria (Vic).