

Technology categories

1. Transfer Stations and Drop-off Facilities

Transfer stations collect and aggregate bulk quantities (truck loads) of mixed waste before it is transferred to resource recovery facilities or to landfill. Drop-off facilities are places where people can deliver small volumes of domestic or commercial waste.

2. Landfills

A landfill is a site on which waste is disposed and subsequently buried in the ground. Landfills vary in type and design depending on local conditions and requirements and may range from encapsulated 'dry tomb' facilities through to bioreactor facilities.

3. Materials Recovery Facilities

Material Recovery Facilities (MRF) are those that receive and sort waste into different material types for recycling. MRFs are either considered 'clean' or 'dirty' depending on the nature of their feedstock.

4. Alternative Waste Treatment Facilities

Alternative Waste Treatment is a technology used to recover resources from the waste stream. Mixed solid waste can be treated in AWT facilities either using mechanical, biologic or thermal processes or converted into energy or useful by-products.

5. Construction and Demolition Recycling Facilities

Construction and Demolition (C&D) Waste Recycling Facilities process C&D waste materials for reuse and recycling. C&D waste recycling facilities either receive source separated waste or mixed waste. These facilities use predominantly mechanical systems to process waste, for example, crushers to reduce the size of the waste, magnets to separate the waste and screens to separate different sizes of waste.

6. Composting Facilities

For the purposes of the infrastructure plan, composting facilities are those that receive and process source-separated organics, such as household garden and food waste, to produce mulch or a compostable product.

7. Other 'Recycling' Facilities

These facilities dismantle/shred, sort, decontaminate and/or bale materials such as e-waste, scrap metal, paper, glass, timber, plastic and send them interstate or overseas for recycling.

Further information

As part of the infrastructure planning project, a number of reports have been commissioned that give an overview of different technology categories. These will be available on the Strategic Waste Infrastructure Planning Working Group (SWIPWG) page of the Waste Authority's website: www.wasteauthority.wa.gov.au



Assessment criteria for technology categories

A. Ability to contribute to the achievement of the Waste Strategy recovery targets

The primary purpose of the SWIP is to improve waste management in the Perth and Peel region and contribute to the achievement of the waste recovery targets as set out in the Waste Strategy.

B. Readiness of technology

The readiness of the technology is an indication of its availability and suitability to be deployed within the Perth and Peel region in the near future.

C. Reliability of technology

Reliability is a measure of the extent to which the technology will be able to effectively process waste as designed.

D. Capacity of technology

A key consideration is the capacity of the technology or the quantity/ tonnage of waste that the facility will be able to process annually.

E. Flexibility of technology

It may be useful to consider the flexibility of the technology, that is, the ability of the technology to accommodate various waste types and have a range of throughput capacities if appropriate, as opposed to technologies that may have specific waste composition needs or capacity constraints.

F. Environmental performance of technology

Any technology that is included in the infrastructure plan will need to meet the environmental regulatory requirements of Western Australia. In addition, it is preferable that the technologies included in the infrastructure plan process waste in a manner that is environmentally preferable when compared to conventional technologies.

G. Siting requirements and suitability within the region

Where new facilities will need to be built, whether it has any specific siting requirements will be an important consideration.

H. Cost of technology

The estimated cost of deploying new technologies in the region including design and construction cost, annual operation and maintenance cost are key considerations when assessing suitability for inclusion in the infrastructure plan.

Providing feedback

The SWIPWG would welcome your input on the proposed assessment criteria. Please email comments and feedback to swipwg@dec.wa.gov.au

