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Option 6 Mechanical heat treatment

Mechanical heat treatment combines mechanical sorting and heat treatment technologies to maximise the recovery of recyclable, usable material from general waste and process the remaining waste.

The mechanical process involves the removal of recyclable materials, typically employing a range of automated separation technologies. Depending on the specific process, this may occur before or after heat treatment. Heat treatment addresses the organic, plastic and paper/cardboard components of the waste stream using steam and/or pressure. Steam and pressure treatment is applied in New Zealand and elsewhere for the sterilisation of medical waste prior to landfill disposal.

Outputs from a mechanical heat treatment process may include:

- Low-quality recyclable material
- Stabilised residual material. This material is typically dry and consistent. Potential uses include low-grade soil amendment or feedstock for conventional or advanced thermal treatment

Examples in operation

New Zealand: None

Australia: Yes, but the final product is currently landfilled due to environmental regulations in some states

Rest of the world: Yes (in the UK)