

ATTACHMENT G1 – RESOURCE USE AND ENERGY EFFICIENCY

The quantities of raw materials to be consumed in the restoration of the worked out quarry void at Brownswood are summarised in Chapter 2, Paragraphs 2.53 to 2.57 of the Environmental Impact Statement.

The waste recovered at this waste facility generally comprises inert soil and stone. No process related raw materials, intermediates or products etc. are currently or will in future be used or generated by waste recovery activities at the site. In the absence of any putrescible waste at the facility, there will be no requirement to use rodenticides and insecticides to control vermin and insects.

There will be no increase in energy requirements for the office, canteen and staff welfare facilities as the existing facilities used for construction material production activities will be shared with the proposed waste recovery facility. All required lighting, heating etc. will be provided by existing connections to the electricity supply network.

Earthworks equipment placing and compacting the imported soil and stone will be powered by diesel fuel. Refuelling of all mobile plant (bulldozers / mechanical excavators) will take place on existing sealed surfaces around existing maintenance sheds or using double skin bowsers.

Assuming inert waste is imported, placed and recycled at the application site for 50 weeks each year over a 6.5 year period (300 weeks) the diesel fuel consumed by the placement, compaction and recovery of inert waste and ancillary activities is estimated as follows:

	Fuel Consumption	Fuel Consumed
Waste Placement and Compaction		
Bulldozer	250 litres / week	81,250
Mechanical Excavator	200 litres / week	65,000
Other		
Site Vehicles (1 No.)	40 litres / week	13,000
Total Fuel Consumption	490 litres / week	159,250 litres

Note that the assessed fuel consumption is based on the following assumptions :

- (i) there will no improvement in fuel efficiency of mechanical plant and site vehicles over the operational life of the facility
- (ii) no alternatives to diesel fuel will become commercially available over the operational life of the facility.

The proposed placement, compaction and recovery of approximately 1,330,000 tonnes of inert soil and stone over an assumed 6 year period is therefore estimated to consume a total of 159,250 litres of diesel fuel.