ATTACHMENT G1 – RESOURCE USE AND ENERGY EFFICIENCY

The quantities of raw materials to be consumed in the restoration of the former quarry at Fassaroe are summarised in Section 2.3.3 of the Environmental Impact Statement.

The waste recovered at this waste facility generally comprises inert soil and stone and C&D waste. 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 putresible waste at the facility, there will be no requirement to use rodenticides and insecticides to control vermin and insects.

Small scale energy requirements for the dedicated site office, lighting, heating etc. will be provided by connection to the electricity supply network.

Earthworks plant placing and compacting the imported soil and stone will be powered by diesel fuel, as will the crushing and screening plant used to recycle inert construction and demolition waste. Refuelling of all mobile plant (bulldozers / mechanical excavators / crushing and screening plant) will take place on existing sealed surfaces at the existing maintenance shed or using double skin bowsers.

Assuming inert waste is imported, placed and recycled at the application site for 50 weeks each year over a 3 year period (150 weeks) the diesel fuel consumed by the placement, compaction and recovery of inert waste and ancillary activities is assessed as follows:

	Fuel Consumption	Fuel Consumed
Waste Placement and Compaction		
Bulldozer	150 litres / week	22,500
Mechanical Excavator	120 litres / week	18,000
Waste Recovery		
Crushing Plant	100 litres / week	15,000
Screening Plant	100 litres / week	15,000
Other		
Generator	100 litres / week	15,000
Site Vehicles (1 No.)	30 litres / week	4,500
Total Fuel Consumption	**600 litres / week**	**90,000 litres**

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

(i) there will no improvement in fuel efficiency of mechanical plant, generator 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 and compaction of approximately 750,000 tonnes of inert soil and stone and recovery of up to 20,000 tonnes of inert construction and demolition waste per annum over a 3 year period is therefore estimated to consume a total of 90,000 litres of diesel fuel.