

Attachment 4-3-1

Calculation of Recovery Capacity

*For inspection purposes only.
Consent of copyright owner required for any other use.*

4.3.1.1 Calculation of Recovery Capacity

The following sections detail the classes of activity for the site, which are in accordance with the Fourth Schedule of the Waste Management Act 1996, as amended to which the application relates and includes a brief technical description of each of the activities specified.

4.3.1.2 Principal Activity

Class R05 Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials

The proposed development consists of restoration of part (c. 6.7 ha) of existing quarry (QR19 06/11798 & PL04.225332) by importation of up to 300,000 tonnes per annum of inert soil and stones and river dredging spoil (EWC 17-05-04 and 17-05-06).

The restoration plan involves the progressive backfilling of the quarry void on a phased basis, with natural inert soil and stone and dredging spoil sourced externally and imported. Topsoil will be seeded and the area returned to grassland.

The volume of material required to complete the proposed reclamation scheme was calculated using the Digital Terrain Modelling Software Package LSS and is shown in the table below.

Table 4-3-1-1 Volume of Material to be Imported for Restoration Works at Garryhesta

Phase		Figures	Depth of Fill		Void Space	
			Average	Maximum	m ³	t ¹ tonnes
			m	m		
1	<i>Infill to 40m AOD</i>	3.1	11.9	17.2	507,493	913,487
2	<i>Infill to 48mAOD</i>	3.2	7.2	8	376,915	678,447
3	<i>Final Profile</i>	3.3	6.3	10	391,635	704,943
Totals	1 to 3		20.6	30	1,276,043	2,296,877

Note: ¹Assumes conversion factor of 1.8 tonnes/m³ for inert soils and stones (allowing for compaction and settlement). This is based on JSPE Ltd.'s experience and other operators in the sector.

The phased scheme for final restoration of the area is shown on Drawings D02, D03 and D04) which accompany this application.

The projected import of material to the proposed soil recovery facility is estimated to be up to 300,000 tonnes per annum for a period of 8 to 10 years. This calculation is based on a 50-week year and represents an average weekly import of 6,000 tonnes or assuming an average truck payload of 20 tonnes. This will result in an average of 110 truck movements (laden/unladen) per day. A bulldozer will be used to appropriately grade and compact the material to the desired profile.

Table 4.3.1.2 Summary of Proposed Project Traffic Generation (Vehicles)

Load Type	Total per Annum	Number of Loads per Annum	Number of Trips per Annum	Number of Trips per Day
20T loads	300,000	15,000	30,000	110

4.3.1.3 Other Waste Recovery Activities

Class R13 Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)

A nominal capacity value of 100 tonnes has been assigned to Class R13 based on Roadstones experience of operating similar facilities.

Waste produced from the development will be minimal. The principal waste arisings at the proposed waste facility will be those materials moved to/stored in the Waste Quarantine skips or area (e.g., wood, plastics, metals, etc.). The Waste Quarantine skips will be provided by and removed by an authorised Waste Collection Permit Holder, for disposal or recovery to an authorised waste facility for segregation and recycling, where possible.

Waste oils, batteries, scrap metal, disused plant and machinery, etc., will be removed from the site for recycling by approved contractors. A licensed waste collection contractor will remove any domestic waste requiring disposal to a licensed waste management facility.

Material not suitable for recovery at the facility will be rejected either at the pre-approval stage, the onsite verification stage, or before recovery stage at the customers expense. If reloading cannot occur immediately, it will be separated and moved to the quarantine area.

Any non-natural materials in the consignment will be manually removed where possible and transferred to the appropriate waste skip for disposal at an appropriate facility.

Similarly, topsoil/subsoil may be stored in temporary storage mounds awaiting placement as part of the restoration scheme.