

## ATTACHMENT H1 WASTE TYPES AND QUANTITIES

This Waste Licence Application provides for the restoration of a worked out quarry in the townland of Brownswood, Enniscorthy, Co. Wexford using imported inert soils and small quantities of inert construction and demolition waste and/or secondary aggregate (recovered construction and demolition waste) for haul road construction.

Clean, inert soil and stone is likely to be sourced from greenfield development sites and/or excavations at uncontaminated urban sites. Soil with significant proportions of intermixed construction and demolition waste will not be accepted at the facility.

The total void space to be backfilled and restored is approximately 700,000m<sup>3</sup>. A target compaction density of 1.9t/m<sup>3</sup> is assumed for tonnage assessment purposes, giving a requirement for approximately 1,330,000 tonnes of inert soil and/or subsoil.

Of the total inert soil requirement, no more than 20,000m<sup>3</sup> will be sourced from the isolated stockpiles and mounds around the existing quarry complex. All remaining inert materials to be used in the restoration of the application site (1,290,000 tonnes) will be imported from external development or construction sites

In addition to the above, a relatively small quantity of inert construction and demolition waste (principally concrete, block and/or brick) will be imported to construct temporary haul roads across the site as backfilling works proceed.

The duration of backfilling activities at the quarry void will largely be dictated by the rate at which approximately 1,290,000 tonnes of externally sourced inert soil and stone is imported to the site. There are many factors which will influence this in turn, including, but not limited to,

- Availability of acceptable inert materials at construction sites
- Prevailing economic climate
- Construction industry output
- Distance of construction projects from the facility (and scale or duration of same)
- Logistical and/or programming constraints at sites generating inert materials
- Climatic conditions (reduced construction activity in wet weather)
- Disruptions along the existing local and national road network
- Capacity of earthmoving plant to place and compact materials
- Waste inspection / weighbridge processing constraints

In light of these and other variables, calculation of intake rates and duration is not an exact science. It is estimated that the importation of inert materials to the quarry will average 200,000 tonnes per annum. The intake at the facility could increase to a maximum of 400,000 tonnes per annum were a large scale infrastructure or development project(s) to proceed within the surrounding catchment area over the operational life of the facility.

At the present time, assuming 50 working weeks in each calendar year, 5.5 days per working week, 10 hours per working day and an average importation rate of 250,000 tonnes/year, the expected operational life of the facility will be of the order of 7 years. In view of the difficult economic climate which exists at the present time, intake tonnages may be lower in the initial years of operation (2012-2015) and over that time, the facility may only operate on an intermittent, project specific basis.

The inert materials to be accepted at the site for use in backfilling / recovery activities are identified by their European Waste Catalogue reference number overleaf:

EWC Code	Description
17 01 01	Concrete
17 01 02	Bricks
17 05 04	Soil and stones other than those mentioned in 17 05 03
17 05 06	Dredging spoil other than those mentioned in 17 05 05
20 02 02	Soil and stones

The estimated annual quantities to be recovered are indicated for the initial five year period 2012-2016 below :-

Year	Inert soil / stones for recovery (tonnes / annum)	Total annual quantity of waste (tonnes / annum)
2012	200,000 (e) 400,000 (max)	200,000 (e) 400,000 (max)
2013	200,000 (e) 400,000 (max)	200,000 (e) 400,000 (max)
2014	200,000 (e) 400,000 (max)	200,000 (e) 400,000 (max)
2015	200,000 (e) 400,000 (max)	200,000 (e) 400,000 (max)
2016	200,000 (e) 400,000 (max)	200,000 (e) 400,000 (max)

Note (e) = estimate

Note that a minor proportion of inert soil imported to the proposed facility will comprise organic rich topsoil capable of sustaining vegetation growth. This material will be stockpiled as required pending re-use in restoration of the quarry and the wider site area.