

ATTACHMENT H1 WASTE TYPES AND QUANTITIES

This Waste Licence Application provides for the restoration of a quarry in the townland of Milverton, Skerries, Co. Dublin using in-situ and imported inert soils and small quantities of imported 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 intermixed construction and demolition waste will not be accepted at this facility.

The total void space to be backfilled and restored is approximately 1,300,000m³. A target compaction density of 1.9t/m³ is assumed for tonnage assessment purposes, giving a requirement for approximately 2,470,000 tonnes of inert soil and/or subsoil.

Of the total inert soil requirement, approximately 300,000m³ (570,000 tonnes) will be sourced from the soil stockpiles and screening berms around the existing quarry. All remaining inert materials to be used in the restoration of the application site will be imported from external development or construction sites

In addition to the above, a relatively small quantity of secondary aggregate produced at the Applicant's construction and demolition waste recovery facility at Huntstown will be imported to construct temporary haul roads across and through 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 1,900,000 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
- Project location, scale, duration and distance from the facility
- Logistical and/or programming constraints at sites generating inert materials
- Climatic conditions (reduced construction activity in wet weather)
- Availability of hauliers
- 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 250,000 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 of the next few years (2009-2012) 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 five year period 2010-2014 below :-

| Year | Inert soil / stones for recovery (tonnes / annum) | Total annual quantity of waste (tonnes / annum) |
|-------------|--|--|
| 2010 | 250,000 (e) 400,000 (max) | 250,000 (e) 400,000 (max) |
| 2011 | 250,000 (e) 400,000 (max) | 250,000 (e) 400,000 (max) |
| 2012 | 250,000 (e) 400,000 (max) | 250,000 (e) 400,000 (max) |
| 2013 | 250,000 (e) 400,000 (max) | 250,000 (e) 400,000 (max) |
| 2014 | 250,000 (e) 400,000 (max) | 250,000 (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.

A small proportion of inert concrete, concrete products and/or brick may also be imported to the facility for re-use in temporary haul road construction.