

ENVIRONMENTAL PROTECTION
AGENCY WASTE LICENSING
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INITIALS.....

ATTACHMENT H1
WASTE TYPES AND QUANTITIES

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ATTACHMENT H1 – WASTE TYPES AND QUANTITIES

The approximate volumes of buried domestic, commercial and domestic (DCI) waste revealed by the environmental investigations undertaken by Wicklow County Council between December 2002 and February 2003 are shown in Table H1 below, together with the estimated volume of soil in contact with the waste to be excavated and removed :

Area No.	Estimated surface area of DCI waste	Estimated average thickness of DCI waste	Estimated volume of DCI waste	Allowance for 0.5m above and below waste body	Allowance for 0.5m to side of waste body	Total volume of DCI waste
	(m ²)	(m)	(m ³)	(m ³)	(m ³)	(m ³)
1	16,000	4	64,000	16,000	6,400	86,400
4	5,000	1	5,000	5,000	280	10,280
6	4,000	6	24,000	4,000	1,520	29,520
Total			93,000	25,000	8,200	126,200

Table H1 Basis for Estimation of Total Volume of DCI Waste

It is assumed on the basis of visual observations on site during the environmental investigations that approximately 25% (by volume) of the DCI waste comprises intermixed soil (predominantly silt). This suggests a volume of 69,750 m³ of DCI waste was transported to and buried at the site.

Assuming the DCI waste has an average density of 0.75 tonnes/m³, the weight of the buried DCI waste is approximately 52,300 tonnes. Assuming the remaining volume of intermixed soil and soil in contact with the waste body (56,450 m³) has an average density of 1.8 tonnes/m³, it weighs **101,600 tonnes**.

The volume of construction and demolition (C&D) waste to be processed on site is estimated on the basis of visual observations on site during the environmental investigations to be approximately 55,000 m³. Assuming that this waste stream has a density of 2.0 tonnes/m³, it weighs approximately 110,000 tonnes. The proposed weight of waste to be recovered and re-used is determined by

- (i) assuming that 10% of the C&D waste cannot be recovered or re-used and is disposed of at the residual non-hazardous landfill and
- (ii) providing a 20% contingency.

This yields a maximum projected tonnage of **120,000 tonnes** to be recovered / re-used by the proposed remediation works.

Adding the combined tonnages of buried DCI waste, the surrounding soil and non-recoverable C&D waste and allowing a 20% contingency, yields a maximum projected tonnage of **180,000 tonnes** of waste to be disposed of at the proposed engineering landfill.

EWC CATALOGUE CODES

The DCI waste to be excavated, removed and transferred to the engineering landfill was originally disposed of in an uncontrolled and unregulated manner. It is likely that the various waste fractions are intermixed to a degree which makes detailed sub-division into their original waste streams for the purposes of this waste licence application practically impossible. Much of the excavated DCI waste is likely to be classified as intermixed municipal waste, with an EWC Code of 20 03 01.

The bulk of the C&D waste to be excavated and processed comprises C&D waste with EWC Catalogue codes as follows :

Waste	EWC Code
Concrete	17 01 01
Brick	17 01 02
Wood	17 02 01
Glass	17 02 02
Plastic	17 02 03
Iron and Steel	17 04 05
Mixed Metals	17 04 07
Soil	17 05 04

The proposed remediation works will provide for a detailed record to be kept of all waste excavated, recovered and transferred to both the engineered landfill and off-site, and will include, where appropriate records of relevant EWC Catalogue Codes.

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