Waste Licence Review Application Form

EPA Ref. Nº: *(Office use only)*	

This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Management Acts 1996 to 2003.

Waste Licence Review Application by Ted O' Donoghue & Sons Ltd. for a Waste Transfer Facility at Knockpoge, Waterfall, Cork.

CONTENTS

INTRODUCTION

A valid application must contain the information prescribed in the Waste Management (Licensing) Regulations 2004 (SI No. 395 of 2004). **The applicant is <u>strongly</u> advised to read the *Application Guidance Notes* for Waste Licensing, available from the EPA.**

The applicant must conform to the format set out in the guidance notes for applications. Each page of the completed application form must be numbered, e.g. *page 5 of 45*, etc. Also duplicated pages from the application form should be uniquely numbered, e.g. page 5(i) of 45, etc. **The basic information should for the most part be supplied in the spaces given in application form** and any supporting documentation should be supplied as attachments, as specified. Consistent measurement units must be used throughout.

The applicant should note that the application form has been structured so that it requires information to be presented in an order of progressive detail.

When it is found necessary, additional information may be provided on supplementary attachments which should be clearly cross referenced with the relevant sections in the main document.

While all sections in the application form may not be relevant to the activity concerned, the applicant should look carefully through all aspects of the form and provide the required information, in the greatest possible detail.

All maps/drawings/plans must be no larger than A3 size and scaled appropriately such that they are clearly legible. In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

Information supplied in this application, including supporting documentation will be put on public display and open to inspection by any person. Should the applicant consider information to be confidential, this information should be submitted in a separate enclosure bearing the legend " In the event that this information is deemed not to be held as confidential, it must be returned to .....". In the event that information is considered to be of a confidential nature, then the nature of this information, and the reasons why it is considered confidential (with reference to the " Access to Information on the Environment" Regulations) should be stated in the Application Form, where relevant.

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.

CHECKLIST

Articles 12 and 13 of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004) set out the information which must, in all cases, accompany a waste licence application. In order to ensure that the application fully complies with the legal requirements of Articles 12 and 13 of the 2004 Regulations, all applicants should **complete** the following.

In each case, refer to the attachment number(s) of your application which contain(s) the information requested in the appropriate sub-article.

Article 12(1) In the case of an application for a waste licence, the application shall -

(a) give the name, address and, where applicable, any telephone number and telefax of the applicant (and, if different, the operator of the facility concerned), the address to which correspondence relating to the application should be sent and, if the applicant or operator is a body corporate, the address of its registered office or principal office,

LOCATION	B.1	
CHECKED	**Applicant** ☒	**Official** ☐

(b) give the name of the planning authority in whose functional area the relevant activity is or will be carried on,

LOCATION	B.3	
CHECKED	**Applicant** ☒	**Official** ☐

(c) in the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled,

LOCATION	Not Applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(d) give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the facility or premises to which the application relates,

LOCATION	B.2	
CHECKED	**Applicant** ☒	**Official** ☐

(e) describe the nature of the facility or premises concerned, including the proposed capacity of the facility or premises, and in the case of application in respect of a landfill of waste, the requirements specified in Annex 1 of the Landfill Directive,

LOCATION	A.1.1	
CHECKED	**Applicant** ☒	**Official** ☐

(f) specify the class or classes of activity concerned, in accordance with the Third and Fourth Schedules of the Act, and in the case of an application in respect of the landfill of waste, specify the class of landfill in accordance with Article 4 of the Landfill Directive,

LOCATION	B.7	
CHECKED	**Applicant** ☒	**Official** ☐

(g) specify, by reference to the relevant European Waste Catalogue codes as presented by Commission Decision 2000/532/EC of 3 May 2000, the quantity and nature of the waste or wastes which will be treated, recovered or disposed of,

LOCATION	B.7	
CHECKED	**Applicant** ☒	**Official** ☐

(h) specify the raw and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity,

LOCATION	G.1	
CHECKED	**Applicant** ☒	**Official** ☐

(i) describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems and operating procedures for the activity,

LOCATION	D.1.d & D2	
CHECKED	**Applicant** ☒	**Official** ☐

(j) provide information for the purpose of enabling the Agency to make a determination in relation to the matters specified in paragraphs (a) to (g) of section 40(4) of the Act,

LOCATION	L	
CHECKED	**Applicant** ☒	**Official** ☐

(k) give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made,

LOCATION	E	
CHECKED	**Applicant** ☒	**Official** ☐

(l) give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit or abate such emissions,

LOCATION	I	
CHECKED	**Applicant** ☒	**Official** ☐

(m) identify monitoring and sampling points and indicate proposed arrangements for the monitoring of emissions and the environmental consequences of any such emissions,

LOCATION	F	
CHECKED	**Applicant** ☒	**Official** ☐

(n) describe any proposed arrangements for the prevention, minimisation and recovery of waste arising from the activity concerned,

LOCATION	C.2	
CHECKED	**Applicant** ☒	**Official** ☐

(o) describe any proposed arrangements for the off-site treatment or disposal of solid or liquid wastes,

LOCATION	A.1.9 & C.3	
CHECKED	**Applicant** ☒	**Official** ☐

(p) describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected emissions and minimise the impact on the environment of any such emission,

LOCATION	J	
CHECKED	**Applicant** ☒	**Official** ☐

(q) describe the proposed measures for the closure, restoration, remediation or aftercare of the facility concerned, after the cessation of the activity in question,

LOCATION	K.1	
CHECKED	**Applicant** ☒	**Official** ☐

(r) in the case of an application in respect of the landfilling of waste, give particulars of –

(i) such financial provision as is proposed to be made by the applicant, having regard to the provisions of Articles (7)(i) and (8)(a)(iv) of the Landfill Directive and section 53(1) of the Act, and

LOCATION	Not applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(ii) such charges as are proposed or made, having regard to the requirements of section 53A of the Act,

LOCATION	Not applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(s) state whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (S.I. No. 476 of 2000) apply,

LOCATION	B.8	
CHECKED	**Applicant** ☒	**Official** ☐

(t) in the case of an activity which gives rise or could give rise to an emission into an aquifer containing the List I and II substances specified in the Annex to Council Directive 80/68/EEC of 17 December 1979, describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6,7,8,9 and 10 of the aforementioned Council Directive,

LOCATION	Not applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(u) include a non-technical summary of information provided in relation to the matters specified in paragraphs (a) to (t) of this sub-article,

LOCATION	A.1	
CHECKED	**Applicant** ☒	**Official** ☐

Article 12(4) Without prejudice to Article 13(1) and (2), an application for a licence shall be accompanied by -

(a) a copy of the relevant page of the newspaper(s) in which the notice in accordance with article 6 has been published,

LOCATION	B.6	
CHECKED	**Applicant** ☒	**Official** ☐

(b) a copy of the text of the notice or notices erected or fixed in accordance with article 7,

LOCATION	B.6	
CHECKED	**Applicant** ☒	**Official** ☐

(c) where appropriate, a copy of the notice given to a local planning under article 9,

LOCATION	B.6	
CHECKED	**Applicant** ☒	**Official** ☐

(d) a copy of such plans (appropriately scaled and no larger than A3 size), including a site plan or plans and location map or maps, and such other particulars, reports and supporting documentation as are necessary to identify and describe, as appropriate -
(i) the position of the notice in accordance with article 7,

LOCATION	B.2	
CHECKED	**Applicant** ☒	**Official** ☐

(ii) the point or points from which emissions are made or are to be made, and

LOCATION	E	
CHECKED	**Applicant** ☒	**Official** ☐

(iii) the point or points at which monitoring and sampling are undertaken or are to be undertaken,

LOCATION	F	
CHECKED	**Applicant** ☒	**Official** ☐

(e) such fee as is appropriate having regard to the provisions of articles 40 and 41.

INCLUDED Y/N	Y	
CHECKED	**Applicant** ☒	**Official** ☐

Article 12(5)(a) & (b) An application shall comprise 1 signed original of the application and 2 copies in hardcopy format plus 2 copies of all files in electronic searchable PDF format on CD-Rom.

HARDCOPIES PROVIDED Y/N	Y	
CHECKED	**Applicant** ☒	**Official** ☐

CD OF PDF FILES PROVIDED? Y/N	Y	
CHECKED	**Applicant** ☒	**Official** ☐

Article 13 Where a development requires an Environmental Impact Assessment to be carried out, 1 signed original and 2 copies in hardcopy format of the environmental impact statement plus 16 copies in electronic searchable PDF format on CD-ROM should accompany this application.

EIA REQUIRED ? Y/N	Y	
CHECKED	**Applicant** ☒	**Official** ☐
3 HARD COPIES OF EIS INCLUDED ? Y/N	Y	
CHECKED	**Applicant** ☒	**Official** ☐
16 CD versions of EIS, as PDF files, PROVIDED? Y/N	Y	
CHECKED	**Applicant** ☒	**Official** ☐

PROCEDURES

It is recommended that pre-application consultations with the Agency are undertaken before a formal submission of the waste licence application.

The procedure for making and processing of applications for waste licences, and for the processing of reviews of such licences, appear in the Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) and are summarised below. The application fees that shall accompany an application are listed in the Second Schedule to the Regulations.

Prior to submitting an application the applicant must publish in a local newspaper, and erect on site, a notice of intention to apply. An applicant, other than a local authority in whose functional area the development is located, must also notify the Local Planning Authority, in writing, of their intention to apply.

An application for a licence must be submitted on the appropriate form (available from the Agency) with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form, supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each emission point. These should be simple, logical, and traceable throughout the application.

The application form is divided into a number of sections of related information. The purpose of these divisions being to facilitate both the applicant and the Agency in the provision of the information and its assessment. Attachments should be clearly numbered, titled and paginated and must contain the required information as set out in the application form. Additional attachments may be included to supply any further information supporting the application. Any references made should be supported by a bibliography.

All questions should be answered. No waste management facility is exactly the same and hence each application will require different information. It is therefore possible that some of the sections of this application form may not be relevant to the activity concerned. **Where information is requested in the application form, which is not relevant to the application, the words "not applicable" should be clearly written on the form. <u>The abbreviation "N/A" should not be used.</u>**

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

Information supplied in this application, including supporting documentation will be put on public display and be open to inspection by any person. **Should the applicant consider information to be confidential, then the nature of this information, and the reasons why it is considered confidential should be clearly stated in an**

attachment to the Application Form. This information should be submitted in a separate enclosure bearing the legend "In the event that this information is deemed not to be held as confidential, it must be returned to (representative of the applicant)".

Applicants should be aware that a contravention of the conditions of a waste licence is an offence under Section 39 of the Waste Management Acts 1996 to 2003.

The provision of information in an application for a waste licence which is false or misleading is an offence under Section 45 of the Waste Management Acts 1996 to 2003.

Note: Drawings. The following guidelines are included to assist applicants:

- *All drawings submitted should be titled and dated.*
- *They should have a **unique reference number** and should be signed by a clearly identifiable person.*
- *They should indicate a scale and the **direction of north**.*
- *All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the site location can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.*

The provision of information in an application for a waste licence, which is false or misleading, is an offence under s45 of the Acts.

SECTION A NON-TECHNICAL SUMMARY

A Non-Technical Summary is to be submitted. The summary should include information on those aspects outlined in the Guidance Note and must comply with the requirements of Article 12 (1) (u) of the Waste Management (Licensing) Regulations, S.I. 395 of 2004.

The Non-Technical Summary should form **Attachment A.1**.

Attachment A.1. **Non-Technical Summary**

A Non-Technical Summary has been provided

SECTION B GENERAL

B.1 Applicant's Details

Name*:	Ted O' Donoghue & Sons
Address:	Knockpoge,
	Watefall,
	Co. Cork
Tel:	021-4544004
Fax:	021-4544848
e-mail:	tedodonoghueandsons@eircom.net

Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Name:	Patrick Power, Glenside Environmental Services
Address:	24 The Heathers, Classes Lake,
	Ballincollig
	Co. Cork
Tel:	021-4875183
Fax:	021-4875183
e-mail:	gleenv@eircom.net

Attachment B1: Certified Copy of the Certificate of Incorporation or Memorandum and Article of Association is included on the next page.

Number
329846

Certificate of Incorporation

I hereby certify that

TED O'DONOGHUE & SONS LIMITED

is this day incorporated under
the Companies Acts 1963 to 1999
and that the company is limited.

Given under my hand at Dublin, this
Thursday, the 6th day of July, 2000

for Registrar of Companies

B.1.4 Site Ownership Details

Figure B.1.1 on the following page indicates the ownership of the site. The land surrounding the site is owned by Ted O'Donoghue and Sons Ltd and the boundary is shown in blue ink. The boundary marked in red ink indicates the area to which the licence application relates.

B.2. Location of Activity

B.2.1 Site Plan

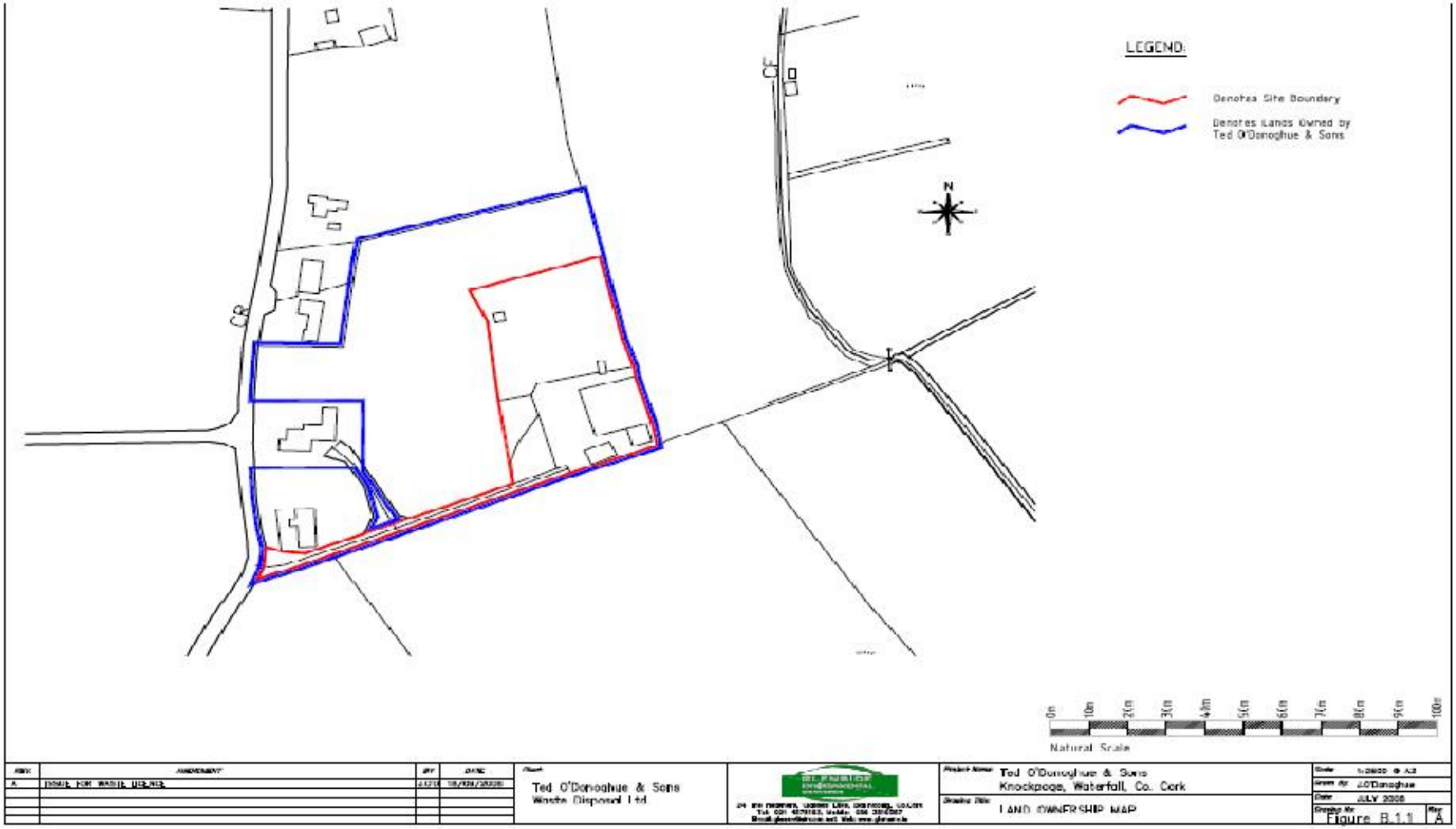
A copy of the Site Plan showing the ownership boundary is shown in Figure B.1.1.

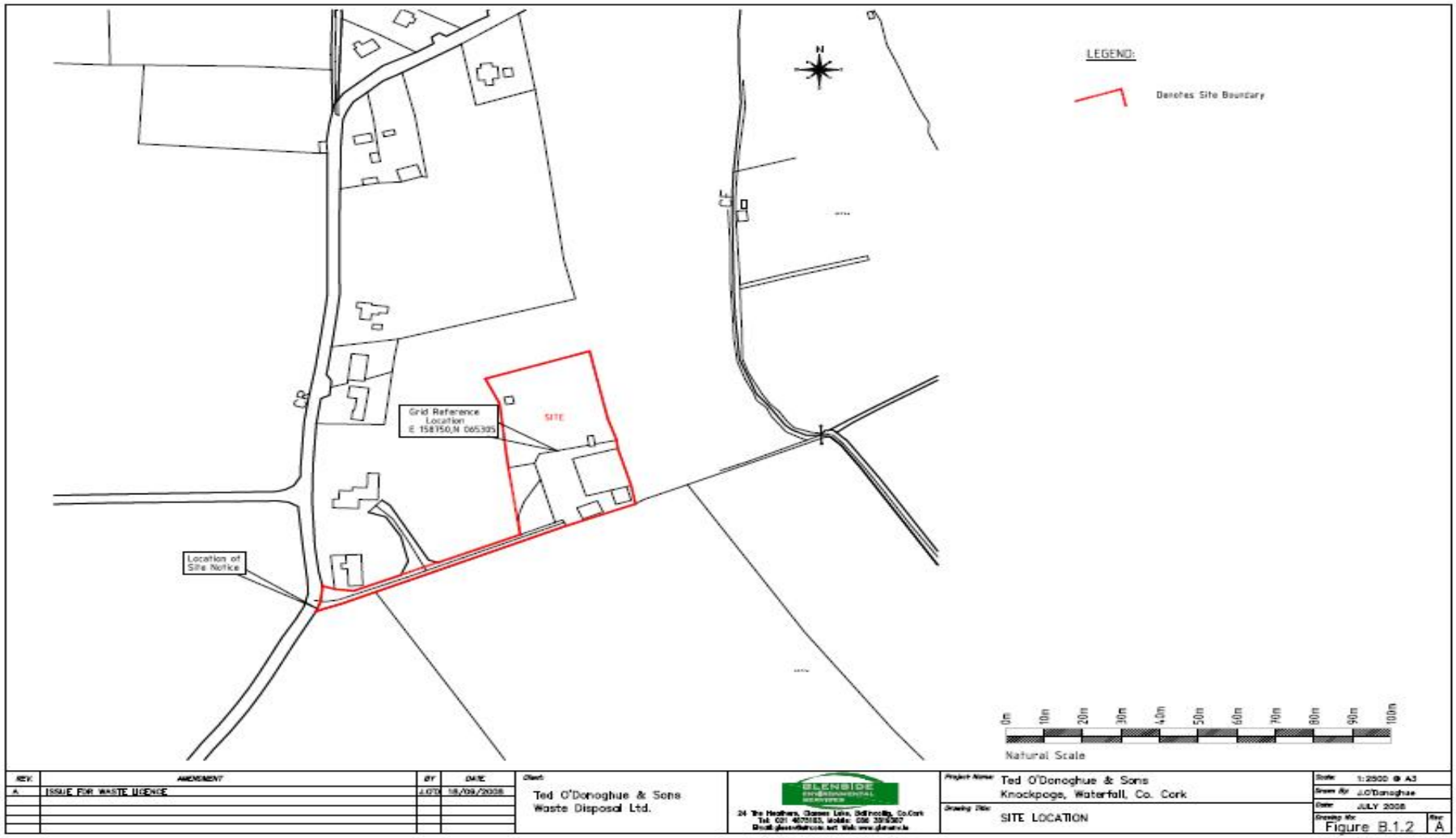
B.2.2 Site Location Map

A copy of the Site Location Map, is shown in Figure B.1.2 (showing location of site notice).

B.2.3 Services Plan

A copy of the Services Plan is included in the end of Section D: Infrastructure in this application. .


LEGEND:
Denotes Site Boundary
Denotes Lands Owned by Ted O'Donoghue & Sons
N
CF
CB
0m 10m 20m 30m 40m 50m 60m 70m 80m 90m 100m
Natural Scale
Ted O'Donoghue & Sons
Waste Disposal Ltd
Ted O'Donoghue & Sons
Knockpogs, Waterfall, Co. Cork
LAND OWNERSHIP MAP
JULY 2008
Figure B.1.1
A


LEGEND:
Denotes Site Boundary
N
SITE
Grid Reference
Location
E 158150,N 065305
Location of
Site Notice
0m 10m 20m 30m 40m 50m 60m 70m 80m 90m 100m
Natural Scale
REV. AMENDMENT BY DATE
A. ISSUE FOR WASTE LICENCE JOD 18/09/2008
Client:
Ted O'Donoghue & Sons
Waste Disposal Ltd.
GLENSIDE ENVIRONMENTAL SERVICES
24 The Heathers, Glasnevin Lane, Ballincollig, Co.Cork
Tel: 021 4870183, Mobile: 086 3918367
Email: glenside@eircom.net Web: www.glenside.ie
Project Name:
Ted O'Donoghue & Sons
Knockpoge, Waterfall, Co. Cork
Drawing Title:
SITE LOCATION
Scale: 1:2500 @ A3
Drawn By: JODonoghue
Date: JULY 2008
Drawing No: Figure B.1.2
Rev: A

B.2 Location of Activity

Name:	Ted O' Donoghue & Sons
Address*:	Knockpoge,
	Watefall,
	Co. Cork
Tel:	021-4544004
Fax:	021-4544848
e-mail:	tedodonoghueandsons@eircom.net

The facility is located in National Grid Reference El58750 / N065305

A Location map is attached in Figure B.1.2 showing the site boundary in colour, the site notice and the grid reference location.

B.3 Planning Authority

Name:	Cork County Council
Address:	County Hall
	Carrigrohane Road
	Cork
Tel:	021 4276891
Fax:	

The Planning Authority has received written notification from the applicant of the application to The Environmental Protection Agency for a Waste Licence under Article 9 of the Waste Management (Licensing) Regulations.

Planning Permission relating to this application has been obtained. A copy is included in Appendix 1 of Volume 3 of the EIS.

B.3.1 Planning Permission Details

Details of the Site Planning Permission are included in Appendix 1 of Volume 3 of the EIS. Planning permission was received in April 2007 for the extension of the transfer station building.

B.3.2 Waste Permit Details

Details of the Waste Collection Permit are included in Appendix 2 of this application.

B.3.3 Other Details

A copy of the existing waste licence of the facility W0147-01 is contained in Appendix 1 of this application.

B.4 Sanitary Authority

The existing facility is located in the functional area of Cork County Council, County Hall, Carrigrohane Road, Cork. There is currently no discharge to sewer from this facility.

No effluent will be discharged to a sewer of the sanitary authority or other body as all domestic effluent generated on site is discharged to a proprietary treatment unit to be installed on site. Details of the system are included in Appendix 6.

Run-off from the treatment unit discharges to percolation. Refer to Drawing Number 2 Site Layout Map in Section D: Infrastructure, for details of the location of the treatment unit. All surface water discharged into a $2m^3$ interceptor before discharge to a land drain. Refer to Drawing Number 2 (1100-03) Site Layout Map in Section D for details of the location of the holding tank and interceptor.

All roof water is diverted into a 10,000 gallon stainless steel tank at the southern end of the transfer station building. This water is used to wash vehicles and equipment on site and will also be used as a water source for fire fighting. An overflow pipe is installed onto this tank so that excess water can be discharged to the local land drain. Any run-off generated from the waste tipping activities in the Waste Transfer & Recovery Building will be collected in a 4,300 gallon tank located underneath the main floor of the transfer building. The level of run-off in the tank is monitored on a weekly basis and when full an authorised liquid waste disposal operator will be contacted to empty out the tank and transfer to either a local authority waste water treatment plant or for incineration abroad.

B.5 Other Authorities

The activity is located in the former Southern Health Board Region now the Health Services Executive with headquarters at George's Quay, Cork.

B.6 Notices and Advertisements

The following are the text of the Newspaper Notice and the Site Notice as required under Articles 6 and 7 of the Waste Management (Licensing) Regulations 2004. A full copy of the Newspaper Notice is included in Appendix 4. Refer to Figure B.1.2 which indicates the position of the site notice.

B.6.1 Newspaper Notice

> Notice is hereby given in accordance with the provisions of the Waste Management (Licensing) Regulations, 2004 that Ted O' Donoghue & Sons Ltd, Mountain View, Knockpoge, Waterfall, Co. Cork {National Grid Reference Number El58750 / NO65305}, will be applying to the Environmental Protection Agency for the review of existing Waste Licence No. W0147-01 for the premises at the same address. The existing development consists of a transfer station.
>
> The review will encompass proposed increase in waste acceptance tonnages from current limit of 23,000 tonnes to 60,000 tonnes per annum and use of the facility as a civic amenity for public use. The application will be accompanied by an Environmental Impact Statement.
>
> In accordance with the third and fourth schedules of the Waste Management Acts 1996 to 2008 the classes of activity concerned are:

THIRD SCHEDULE:
11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule. **12.** Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule. (Principal) **13**. Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than the temporary storage, pending collection, on the premises where the waste concerned is produced.

FOURTH SCHEDULE:

2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
3. Recycling or reclamation of metals and metal compounds.
4. Recycling or reclamation of other inorganic materials.
13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than the temporary storage, pending collection, on the premises where such waste is produced.

A copy of the application for the Waste Licence Review and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the application, will, as soon as practicable after receipt by the Agency, be available for inspection or purchase, at the EPA Headquarters, Johnstown Castle Estate, County Wexford.

B.6.2 Site Notice

Notice is hereby given in accordance with the provisions of the Waste Management (Licensing) Regulations, 2004 that Ted O' Donoghue & Sons Ltd, Mountain View, Knockpoge, Waterfall, Co. Cork {National Grid Reference Number El58750 / NO65305}, will be applying to the Environmental Protection Agency for the review of existing Waste Licence No. W0147-01 for the premises at the same address. The existing development consists of a transfer station.

The review will encompass proposed increase in waste acceptance tonnages from current limit of 23,000 tonnes to 60,000 tonnes per annum and use of the facility as a civic amenity for public use. The application will be accompanied by an Environmental Impact Statement.

In accordance with the third and fourth schedules of the Waste Management Acts 1996 to 2008 the classes of activity concerned are:

THIRD SCHEDULE:
11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule. **12.** Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule. (Principal) **13**. Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than the temporary storage, pending collection, on the premises where the waste concerned is produced.

FOURTH SCHEDULE:

2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
3. Recycling or reclamation of metals and metal compounds.
4. Recycling or reclamation of other inorganic materials.
13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than the temporary storage, pending collection, on the premises where such waste is produced.

A copy of the application for the Waste Licence Review and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the application, will, as soon as practicable after receipt by the Agency, be available for inspection or purchase, at the EPA Headquarters, Johnstown Castle Estate, County Wexford.

Signed:

_____
Ted O'Donoghue

Date: 19th September 2008

B.7 Type of Waste Activity, Tonnages & Fees

B.7.1 Type of Waste Activity

B.7.1 Description of Activities as Per the Third and Fourth Schedules of the Waste Management Acts 1996 to 2003:

TABLE B.7.1 THIRD AND FOURTH SCHEDULES OF THE WASTE MANAGEMENT ACTS 1996 TO 2003

Waste Management Acts 1996 to 2003			
THIRD SCHEDULE **Waste Disposal Activities**	**Y/N**	**FOURTH SCHEDULE** **Waste Recovery Activities**	**Y/N**
1. Deposit on, in or under land (including landfill).		1. Solvent reclamation or regeneration.	
2. Land treatment, including biodegradation of liquid or sludge discards in soils.		2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).	**Y**
3. Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.		3. Recycling or reclamation of metals and metal compounds.	**Y**
4. Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.		4. Recycling or reclamation of other inorganic materials.	**Y**
5. Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.		5. Regeneration of acids or bases.	
6. Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule.		6. Recovery of components used for pollution abatement.	
7. Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 8 to 10 of this Schedule (including evaporation, drying and calcination).		7. Recovery of components from catalysts.	
8. Incineration on land or at sea.		8. Oil re-refining or other re-uses of oil.	
9. Permanent storage, including emplacement of containers in a mine.		9. Use of any waste principally as a fuel or other means to generate energy.	
10. Release of waste into a water body (including a seabed insertion).		10. The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system.	
11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.	**Y**	11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.	
12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.	**Y**	12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.	
13. Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.	**Y** **P**	13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.	**Y**

The following section describes the current waste activities at the facility;

Third Schedule:

Class 13 - Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced:

This relates to the storage of domestic, commercial and industrial residual wastes which will be stored in forty foot ejector trailers on site prior to transfer to other EPA licensed transfer stations or landfill facilities for further recovery or disposal.

Class 12 - Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule:

All waste being handled at the facility is delivered to the site in refuse collection vehicles, skips or wheeled bins. This activity relates to the residual waste which remains after the recyclables are picked out and which is then repackaged into ejector trailers for transfer to authorised landfills or waste transfer facilities.

Class 11 - Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule:

This relates to the mixing of domestic, commercial and industrial residual wastes on the floor of the transfer station building before being placed into articulated 40 foot ejector trailers to await transfer to other authorised facilities for disposal.

Fourth Schedule:

Class 2 - Recycling or reclamation or organic substances which are not used as solvents (including composting and other biological transformation processes):

This relates to the shredding of timber waste and green waste removed from domestic, commercial, industrial and construction & demolition wastes tipped onto the floor of the transfer station. This also relates to the removal of cardboard and paper waste from the waste tipped onto the floor of the transfer station before being baled for storage prior to transfer to authorised recyclers.

Class 3 - Recycling or reclamation of metals and metal compounds: This relates to the removal of metal from domestic, commercial, industrial and construction & demolition wastes tipped onto the floor of the transfer station. This metal waste is then placed into a 30 foot articulated trailer to await transport to authorised metal recyclers.

Class 4 - Recycling or reclamation of other inorganic materials:

This relates to the removal of plastic film from domestic, commercial, industrial and construction & demolition wastes tipped onto the floor of the transfer station before being baled for storage prior to transfer to authorised recyclers.

This also relates to the separation of mixed construction and demolition wastes into its constituents parts i.e. metal, timber, cardboard, soil and stones. These waste streams are then stored before transfer to authorised recyclers or facilities for recovery.

Plate glass and glass bottles are also removed from domestic, commercial, industrial and construction & demolition wastes tipped onto the floor of the transfer station. This glass is then stored in external bays and when sufficient volumes are available the glass is loaded into skips for transfer to authorised glass recyclers.

Class 13 - Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced: This relates to the storage of segregated and recovered waste streams i.e. cardboard, metal, timber, plastic, glass, soil and stones before transfer to authorised facilities for recycling.

Current Site Activities:

Mixed Construction & Demolition Waste, Mixed Municipal Waste (Household and Commercial Wheeled Bins), Commercial & Industrial Waste (Skips) and Domestic Waste (Household Skips) are accepted at the facility in Knockpoge.

The Mixed Construction & Demolition Waste is tipped onto the floor of the transfer station where large pieces of timber, green waste, metal, cardboard and plastics are removed by hand. The timber and green waste is shredded on site and is transported to CTO Environmental in Cork for recovery. The metal is placed into a thirty foot artic trailer and transported to Cork Metal, Dublin Hill, Cork for recycling. The cardboard and plastic are baled and then sent to Glyntown Recycling, Sarsfield Court Industrial Estate, Cork for recycling. The remaining material, after segregation, is loaded into a trommel screen, using a 360' Excavator, which separates out the soil, sand and small stones from the oversize material i.e. the fines material.

The fines are then stored externally before being transported to permitted land reclamation activities.

The oversize continues on from the trommel onto a three bay picking station where cardboard, metal, plastics, glass and timber are picked out from the oversize material and dropped in bays below. A magnet removes any metal content from the oversize material.

The remaining material is then subjected to a blowing process which removes any remaining paper and plastic from the remaining stone and blocks. Glass removed from the picking station i.e. mainly plate glass is stored in a skip inside the transfer station and transported to Cork Mini Skips for recycling. Glass bottles picked from

the picking station are stored in external bays and then transported to REHAB in Cork for recycling or to a quarry in Co. Clare.

The Commercial & Industrial Skip Waste and the Domestic Skip Wastes are tipped out onto the floor of the transfer station and all recyclables are removed i.e. timber, green waste, metal, glass, plastic, cardboard, and these are then sent for recovery as described in the preceding paragraph for the construction and demolition wastes.. The remaining residual waste is mixed with the household waste and placed into the forty foot ejector trailers using the 360' Excavator before being transferred to Mulleady's for further processing or to Youghal Landfill for disposal.

Hazardous waste materials such as batteries, paints, fluorescent tubes, oil, fridges, freezers, washing machines, lyres and gas bottles which cannot be identified on visual inspection in the skips when collecting them at the customer's premises and as a result are tipped onto the floor of the transfer station, are all segregated and quarantined and transferred to authorised facilities for recycling or disposal.

TABLE B.7.2 MAXIMUM ANNUAL TONNAGE

The maximum annual tonnage of waste to be handled at the site should be indicated and the year to which the quantity relates indicated.

Maximum Annual Tonnage (tpa)	60,000
Year	2015

B.7.3 FEES

State each class of activity for which a fee is being submitted as per Part I of the Second Schedule of the Waste Management (Licensing) Regulations 2004, S.I. No. 395 of 2004. Note: two fees are required if disposal and recovery are to occur.

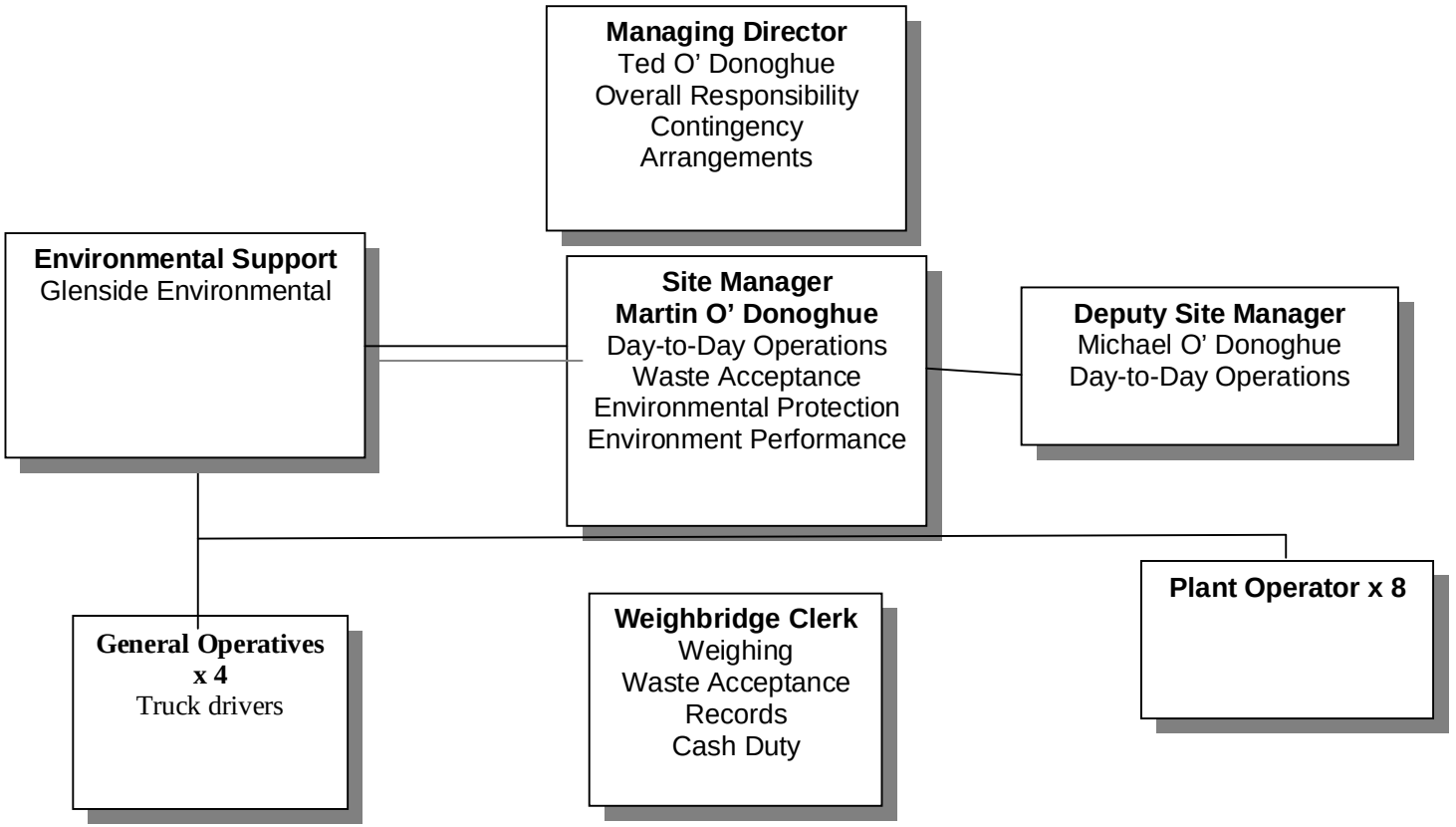
Waste Activity	**Fee (in €)**
Disposal of Waste (appropriate disposal activity 1.1 – 3.3)	€10,000
Recovery of Waste (4)	€6,000

SECTION C MANAGEMENT OF THE FACILITY

C.1 Technical Competence and Site Management

Name	Position	Duties and Responsibilities	Experience /Qualifications
Ted O'Donoghue	Managing Director	Ted O'Donoghue has overall responsibility for the company and oversees all company activities.	Ted O' Donoghue established the waste collection business in 1979 and has over 25 years experience operating in the waste management industry.
Martin O'Donoghue	Director	Martin is responsible for the day to day running of the company which includes managing the facility and organizing the fleet of collection vehicles. In terms of environmental compliance Martin also looks after the following: • Daily Nuisance Monitoring for litter, vermin and odours • Dealing with Correspondence from the Local Authority in relation to the site waste permit. • Compiles Records of all Waste Delivered to and Removed from the site. • Liaising with Pest Control Firms • Organises regular Noise, Dust and Water Monitoring • Organises Disposal and Recovery Outlets • Completes the Annual Environmental Returns required for the Waste Collection Permit and the Site Waste Permit.	Martin O'Donoghue has 13 years experience operating in the waste management industry and will complete the FAS waste management training programme in 2005.
Michael O'Donoghue	Director & Company Secretary	Michael is responsible for running the office and all associated paperwork including invoicing. All correspondence of an environmental nature arrives first into the office and this is then passed onto Martin O'Donoghue to deal with.	Michael has five years experience working in the waste management industry.

FIGURE C.1: MANAGEMENT STRUCTURE OF O DONOGHUE WASTE DISPOSAL



C.2 Environmental Management System

An Environmental Management System (EMS) has been prepared for the site in 2003. The EMS is contained in Appendix 5.

C.3 Hours of Operation

The following are the proposed hours of operation, waste acceptance and handling at the facility at Knockpoge, Waterfall, Co. Cork.

The following are the proposed hours of acceptance of waste at the facility:

- Monday 8am to 6pm
- Tuesday 8am to 6pm
- Wednesday 8am to 6pm
- Thursday 8am to 6pm
- Friday 8am to 6pm
- Saturday 8am to 1pm

C.3.2 Proposed Hours of Waste Acceptance / Handling

The following are the proposed hours of acceptance of waste at the facility:

- Monday 8am to 6pm
- Tuesday 8am to 6pm
- Wednesday 8am to 6pm
- Thursday 8am to 6pm
- Friday 8am to 6pm
- Saturday 8am to 1pm

C.3.3 Proposed Hours of any Construction and Development Works at the Facility and Timeframes

The proposed hours of construction and development works at the facility will take place during the proposed hours of operation as outlined above.

C.3.4 Any other relevant Hours of Operation Expected

There are two periods outside of the normal operating hours that are relevant to the operation of the facility. These are as follows:

1. Delivery and collection of a waste container i.e. a skip at customer's premises, outside of normal operating hours. In this case some customers can only have their waste container emptied outside of the normal operating hours which requires that a

skip truck, which is parked at the facility, to be used to deliver an empty skip and / or collect a full skip at the customer's premises.

If a full skip is then brought back to the facility it will only be parked in the waste transfer station and it will not be unloaded or handled outside of the normal waste acceptance / handling hours of the facility. This activity generally takes place between the hours of 8pm to 12pm. Also on occasion similar work may need to be carried out on Saturdays and Sundays as skips can only be dropped or collected in the centre of Cork City during the weekend as enforced by Cork City Councils Bye-Laws on placing skips.

2. On occasion there may be a requirement to repair any broken down plant on site which is required for waste handling purposes. These repairs may need to be carried out outside of normal working hours in order for the plant to be available during the next period of waste handling on site and thus to prevent a build up of waste. These activities mentioned above generally take place between the hours of 8pm to 12pm.

SECTION D INFRASTRUCTURE & OPERATION

D.1 Infrastructure

Complete the following table detailing the site infrastructure. **Attachment D 1** should contain the appropriate documentation. Information provided should follow the sequence, and use the headings, established in Table D.1. Additional advice on completing this section is provided in the application *Guidance Note.*

Table D.1. Infrastructure		**y/n**	**Comments**
D.1.a	**Site security arrangements including gates and fencing**	Y	See Attachment D.1
D.1.b	**Designs for site roads**	Y	See Attachment D.1
D.1.c	**Design of hardstanding areas**	Y	See Attachment D.1
D.1.d	**Plant**	Y	See Attachment D.1
D.1.e	**Wheel-wash**	Y	See Attachment D.1
D.1.f	**Laboratory facilities**	Y	See Attachment D.1
D.1.g	**Design and location of fuel storage areas**	Y	See Attachment D.1
D.1.h	**Waste quarantine areas**	Y	See Attachment D.1
D.1.i	**Waste inspection areas**	Y	See Attachment D.1
D.1.j	**Traffic control**	Y	See Attachment D.1
D.1.k	**Sewerage and surface water drainage infrastructure**	Y	See Attachment D.1
D.1.l	**All other services**	Y	See Attachment D.1
D.1.m	**Plant sheds, garages and equipment compound**	Y	See Attachment D.1
D.1.n	**Site accommodation**	Y	See Attachment D.1
D.1.o	**A fire control system, including water supply**	Y	See Attachment D.1
D.1.p	**Civic amenity facilities**	Y	See Attachment D.1
D.1.q	**Any other waste recovery infrastructure**	Y	Not applicable
D.1.r	**Composting infrastructure**	Y	Not applicable
D.1.s	**Construction and Demolition waste infrastructure**	Y	See Attachment D.1
D.1.t	**Incineration infrastructure (if applicable).** **Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive**	Y	Not applicable
D.1.u	**Any other infrastructure**	Y	Not applicable

D.1 Infrastructure

D.1.a Site Security Arrangements Including Gates and Fencing

The site is surrounded by a 2.4m high chain link fence on the Northern. Eastern. Western and Southern boundary of the site. A 4m high soil berm will be maintained outside the chain link fence on the Northern and Western boundary of the site. Image D.l.a shows the chain link fence and the soil berm. This will be used as a visual screen from local residence and it will be planted with suitable trees to prevent noise and dust emissions. Trees will also be sown along the Eastern and Southern boundaries to screen off the site and prevent noise and dust emissions.

The entrance road to the site at the south western side of the facility will have a 2.4m high chain link fence either side of the road and will be planted with suitable trees to act as a screen and to prevent noise and dust emissions emanating from the site. There are two gates on this road, one at the turn off from the main road and the other at the end of the road into the waste facility. The gate at the turn off from the main road is 1.5m high and is constructed of heavy duty box iron. The gate at the end of the road into the waste facility is a light aluminium agricultural gate which is l.25m high.

During operating hours the site entrance will be supervised by the Facility Manager. Outside of operating hours the main gates will be locked and a CCTV System is currently installed to monitor the site.

D.1.h Designs for Site Roads

Details of access roads into the site are shown in Drawing Number 2 (I 100-03) Site Layout Map. Because the whole site will be on a hard stand area. the site roads are taken to be of the same detail as the hard stand area, i.e., a 3OOmm layer of compacted hardcore with a 300mm concrete covering.

D.1.c Design of Hardstanding Areas

Hard-standing areas on site are provided as follows. depending on requirements:
(a) As per site roads (Attachment D. I .b above);
(b) Ready-mix concrete floors as used in the Waste Transfer Building and Workshop.

D.1.h Plant

The plant to be utilized at the facility is as follows:

- Horizontal Baler for cardboard and plastic
- Powerscreen 725 LL Trommel with 25mm screen
- Powerscreen Picking Station with overband magnet and paper i plastic blower

- Komatsu PC 2 I OLC 360" Excavator with bucket
- Fiat Hitachi FH 150 W2 36O'Excavator with McQuaid Engineering Grab
- Hyster Forklift Truck
- Tim Enviropro SD-1010 Timber Shredder
- 2 FG Wilson Diesel 3-Phase Power Generators - 60 kva and 250 kva
- Schmidt I5 I Compact Road Sweeper
- Two Forty Foot Articulated Truck Ejector Trailers
- Forty Foot Articulated Truck Curtain Side Trailer
- 4 Four cubic yard forklift tipping containers
- 2 Six cubic yard skips for storing rubble and soil
- DAF 1900 Chain Lift Skip Truck
- Two cubic yard skip for storing plate glass
- 14 cubic yard open-top skip for mixed plastic film
- 14 cubic yard skip used to store mixed newsprint and paper

There are also a number of on-the-road vehicles for waste collection and transfer.

These include:

- 2 chain-lift skip trucks;
- 1 hook-Iift skip trucks;
- 1 articulated truck;
- 2 refuse collection vehicles-commercial wheeled bin waste:
- 1 Skip Eater - skips and cardboard:

D.1.g Design and Location of Fuel Storage Areas

A secure Fuel Storage Area is located on the north western boundary of the site, refer to Drawing Number 2 (I 100-O)) Site Layout Map and Image D.1.g. It is bounded in a concrete area and has a capacity of more than 110% of the volume of the largest storage tank. The bund capacity is approximately 19,000 gallons and the largest tank capacity is 5,000 gallons.

Image D.1.g: Fuel Storage and Bund Area

D.1.h Waste Quarantine Area

A Waste Quarantine Area is located inside the Waste Transfer Building for items such as batteries, fluorescent tubes and unidentifiable liquid wastes mainly paints. In the event that hazardous waste or other non-complaint waste which cannot be seen on visual inspection of the skips at the customers premises and is inadvertently delivered to the Waste Transfer/Recycling facility, the waste will be removed to the designated Waste Quarantine Area. The waste shall be either removed from the site immediately by the waste generator or held at the Quarantine Area until such time that the waste generator can arrange for the waste to be transported off-site. Gas bottles are stored in a 20 foot storage unit located next to the weighbridge and waste tyres and electrical items are stored in external bays at the western end of the Waste Transfer Building.

D.1.i Waste Inspection Areas

A Waste Inspection and Tipping Area is located inside the Waste Transfer Building. An area will be marked out on the hardstand identifying it as a Waste Inspection Area and adequate lighting shall be provided in the area to ensure proper inspection of the waste in winter's evenings.

D.l.j Traffic Control

There is one entrance to the facility which will be used to access the site by Ted O' Donoghue and Sons Ltd vehicles as well as vehicles from other waste operators delivering waste too and collecting waste from the facility. All staff and contractors will be shown on induction training where to unload waste, park vehicles and park skips on site. All waste storage and tipping areas will be identified through signage and appropriate lighting will be installed on site to ensure safe driving on site during winter mornings and evenings.

When waste vehicle drivers arrive on site they will be directed by the Facility Manager around the Transfer/Recycling facility. Car parking will be facilitated at the Western end of the facility for staff and visitors and suitable signage directing vehicles to the parking area will be provided.

A full time member of staff will be employed to direct the members of the public to the storage bays for recyclables.

D.1.k Sewage and Surface Water Drainage Infrastructure

Wash Water and Domestic Effluent generated from the Office and Toilets is treated through a proprietary treatment unit, refer to Appendix 6 for details, before passing onto percolation. Refer to Drawing Number 2 (1100-03) Site Layout Map for details of location of the proprietary treatment unit.

The yard surface water is collected in gullies and box gully drains and will pass into a $2m^3$ intercepting tank before passing onto a local land drain which connects into

the Curraheen River. The interceptor tank is located at the southern end of the waste transfer building, refer to Drawing Number 2 (1100-03) Site Layout Map for details.

Roof water from the facility building is diverted into a 10.000 gallon holding tank at the south eastern end of the facility. See attached Image D.I .k. The water is used for washing plant and equipment on the site as well as for use for fire fighting purposes. An overflow pipe will be attached to the storage tank to drain off excess water. This will be diverted onto a local land drain which connects to the Curraheen River at the South Eastern end of the facility.

Image D.1.k: 15,000 gallon holding tank for roof water

D.1.1 All Other Services

All site services and ducting layout including power, water and telephone are shown in the Site Layout Map.

D.1.m Plant Sheds, garages and equipment compound

Mechanical repairs will be carried out in the workshop located at the southern end of the facility and this will also be used to store repair equipment. The refuse vehicles will be stored on the hard standing area along the northern site boundary as indicated on Drawing Number 2 (1100-03) Site Layout Map, which also shows the location of the Repair Workshop building and the transfer station building. Detailed drawings of the Transfer Station building can be viewed in Drawing Number 3 (1100-02) Side Elevations.

Image D.1: View of Waste Transfer Building

D.1.n Site Accommodation

Site accommodation includes a small weighbridge cabin which houses the computer to record the weight and details of each waste load entering and exiting the facility and the docket printing machine. Also on site there is a port-a-cabin for the site office and a portacabin for toilet and staff locker room facilities, see attached Image D.1.m. The area behind the offices to the south western end of the site will be used to store empty skips and wheeled bins. All vehicle parking will take place at the north western end of the facility and all car parking will be located along the western end of the facility.

D.1.o A fire control system, including water supply

Fire extinguishers are positioned at various locations around the site and these will be used to control any outbreak of tire. In the main building fire extinguishers are located in the repair workshop, the waste transfer station building and the office and the staff canteen facilities. The 10,000 gallon tank at the south eastern end of the facility, see Image D. I .k stores rainwater from the waste transfer station roof area. This can then be used to pump water to two fire hose connections to be located at the north eastern and south western end of the waste transfer building to fight any fires that occur.

D.1.p Civic amenity facilities

It is proposed to apply for use of a civic amenity to cater for the needs of the local population to dispose of recyclables and household waste at the facility. Bays are currently in place to hold glass, wood, plasterboard, metals. Individual bays are provided for each waste stream. Further bays will be provided for plastics, paper

and household refuse. A member of staff will be available to assist members of the public to the appropriate bay.

D.1.q Any Other Waste Recovery Infrastructure

There will be external storage bays located at the facility for storing recovered waste for recycling. Concrete storage bays for soil, rubble, green waste and chipped wood are located at the north eastern end of the facility. Refer to Drawing Number 2: Site Layout Map for details of the location of these storage bays. At the south western end of the waste transfer building there will be bays located for glass and scrap metal and also a quarantine area for fridges, freezers, tyres and other electrical goods.

These bays will be used by members of the public to dispose of recyclables.

Image D.1: View of Storage Bays at South East of Facility

Image D.2: View of Glass Storage Bays

Image D.3: View of Glass Storage Bays

Image D.4: View of Wood and Green Storage Bays

D.1.s Construction and Demolition Waste Infrastructure

All construction and demolition waste will arrive at the facility in skips. The mixed construction and demolition waste will be tipped onto the floor of the transfer station and any large recyclables such as cardboard, timber, plastic and metal will be removed from the tipped waste and stored in their designated storage areas. The remaining material will be loaded into the powerscreen trommel which will separate the soil and small stones from the rubble. The rubble will continue on along a

conveyor belt and any small pieces of timber, cardboard and metal will be removed on the picking station manually. The remaining rubble will fall over the edge of the conveyor belt and any small pieces of paper and plastic will be blown from the rubble with the blower. The metal, timber and cardboard will be removed and stored in their designated storage areas before transfer for recycling.

In **Attachment D 2** describe the plant, methods, processes and operations of the waste facility, as required by the *Guidance Note*.

Attachment included	**yes** ☒ **no** ☐ **not applicable** ☐

Attachment D.2 Facility Operation

The following is a description of the processes at the waste facility of Ted O'Donoghue and Sons Ltd.

D.2.1 Unit Processes

Types of Waste Accepted:

The following are the main types of waste accepted at the facility in Knockpoge:

1. Mixed Construction & Demolition Waste
2. Mixed Municipal Waste (Household and Commercial Wheeled Bins).
3. Commercial & Industrial Waste (Skips), and.
4. Domestic Waste (Household Skips)

1. **Mixed Construction & Demolition Waste Processing**:

When the Mixed Construction & Demolition Waste arrives on site in skips it is weighed in over the weighbridge and the information is recorded on a software package known as Industrial Weighbridge Waste Management Software. The waste is then tipped onto the floor of the transfer station where large pieces of timber, green waste, metal, cardboard and plastics are removed manually by hand or using the grab on the 360' Rubber Tyre Excavator.

The timber and green waste is placed outside the building next to the TIM Shredder and is shredded and stored on site. When there is sufficient volume available they are loaded into a 30 foot articulated tipper trailer and is transported to Finsa Forest Products in Scariff or CT0 Environmental in Cork for recovery.

The metal removed from the tipped construction 81 demolition waste is either placed into a thirty foot artic trailer stored outside the waste transfer station building or else stored in the scrap metal bay at the western end of the facility. When there is sufficient volume of metal in the 30 foot articulated trailer or the scrap metal storage bay is full. Arrangements are made to have the metal transported to Cork Metal, Dublin Hill. Cork or to National Recycling in Cork City for recycling.

The cardboard removed is placed next to the horizontal baler and baled. The plastic is stored in a skip located in the waste transfer station building and when it is full it is baled. Any paper and newsprint removed from the tipped waste is stored in a skip located in the waste transfer station building and when this is filled it is baled in the horizontal baler. All

bales are stored in a forty foot curtain side trailer and when full they are transferred to Glyntown Enterprises Ltd, Sarsfield Court Industrial Estate, Glanmire, Co. Cork for recycling.

The remaining material, after manual and mechanical segregation on the floor of the transfer station building, is loaded into a Powerscreen trommel with a 25mm diameter screen, using the 360' Rubber Tyre Excavator. The trommel screen separates out the soil, sand and small stones i.e. the fines material, from the oversize material i.e. blocks, large stones, tiles, cardboard, glass, timber, metal, light paper and plastic.

The fines fall through the trommel screen and onto a conveyor belt which transfers the fines into a six cubic yard skip on the DAF 2500 skip truck. When this is full it is tipped outside and stored until there are sufficient quantities available to fill a thirty foot tipper trailer. The fines are then transported to permitted land reclamation activities in the Cork region for recovery. Concrete bays will be constructed externally to store these fines.

The oversize continues on from the trommel onto a three bay picking station where cardboard, plastics, glass and timber are manually picked out from the oversize material and dropped into bays below. The cardboard and plastics are baled and the timber is shredded in the TIM shredder. Glass removed from the manual picking i.e. plate glass, is stored in a skip inside the transfer station and when till it is transported to Cork Mini Skips for recycling. Glass bottles picked from the picking station are stored in external bays and when the bays are full the glass is loaded into skips and transported for recycling. A magnet removes any metal content from the oversize material and this falls into a skip below the belt. The metal is either tipped into the thirty foot trailer or stored in the scrap metal storage bay. The remaining materials, mainly blocks, large stones and tiles, are then subjected to a blowing process which removes any remaining light paper and plastic from the remaining stone and blocks.

The small paper and plastic blown from the stone and blocks is loaded into a forty foot ejector trailer bound for Mulleadys Recycling in Drumlish, Co. Longford or for disposal at Youghal Landfill. The stones, blocks and tiles are stored externally until there are sufficient quantities available to fill a thirty foot tipper trailer. The stones, blocks and tiles are then transported to permitted land reclamation activities for recovery. Concrete bays will be constructed externally to store this oversize material and it is planned to crush this material on site for resale as fill material for roads.

2. **Mixed Municipal Waste (Household & Commercial Wheeled Bins) Processing**:

The Mixed Municipal Waste arrives on site in Refuse Collection Vehicles (RCV's) and they are weighed over the weighbridge. The RCV's reverse into the transfer station building and tip the contents of their load onto the floor of the transfer station building.

Any large items of metal, timber, green waste, cardboard and plastic are extracted from the tipped waste and processed as per the construction & demolition waste outlined previously. The remaining residual material is loaded directly into a forty foot ejector trailer using the 360' Rubber Tyre Excavator and grab and when full it is transported to Mulleadys in Longford for further processing.

3. **Commercial & Industrial Waste (Skips) Processing:**

Commercial & Industrial Skip Waste arrives on site in skips or in Rear End Loader Skip Eater Vehicles and is weighed over the weighbridge. The vehicles reverse into the transfer station building and the contents are tipped out onto the floor of the transfer station and all

recyclables are removed i.e. timber, green waste, metal, glass, plastic, cardboard, either manually or mechanically. These recyclable waste streams are then processed as outlined in the paragraph for the construction and demolition wastes.

The remaining residual waste is mixed with the tipped household waste and loaded into the forty foot ejector trailers using the 360' Excavator before being transferred to Mulleadys for further processing or to Youghal Landfill for disposal.

4. Domestic Waste (Household Skips) Processing:

Domestic Skip Waste arrives on site in skips and are weighed over the weighbridge. The waste material is processed as per the commercial and industrial skip waste outlined in the preceding paragraph number three.

Increased waste recovery at the facility will occur through the refining of the segregation process on site and through implementation of segregation of waste streams at source where possible. Other waste operators delivering household waste to the facility will be audited to ensure that they are introducing waste segregation for households in line with the conditions of their waste collection permits.

Waste Quarantine Process

Hazardous waste materials such as batteries, paints, fluorescent tubes, oil, fridges, freezers, washing machines, tyres and gas bottles which cannot be identified on visual inspection in the skips or wheeled bins when collecting them at the customers premises and as a result are tipped onto the floor of the transfer station, are all segregated and Quarantined on site. The batteries, paints, fluorescent tubes and oil are stored in receptacles located in the waste quarantine area within the waste transfer station building.

Fridges, freezers, washing machines and tyres are stored in external storage bays at the western end of the waste transfer station building. Gas Bottles are housed in a twenty foot container next to the weighbridge. These materials are temporarily stored and transferred back to the original waste generator or else transferred to authorised facilities for recycling or disposal.

D.2.3 Cleaning and Maintenance

Cleaning: At the end of each day the floor of the Transfer/Recycling Facility and the tipping areas will be cleaned of residual waste. Any liquid around the waste handling areas will be swept and washed into the gullies of the leachate collection system.

Plant Maintenance: A number of different properties of the various plant on site, need to be checked on a daily, monthly or annual basis. Factors such as oil temperature, oil levels and oil filters need to be inspected every day, along with the hose pipe connections and the pump motors. Once per month all sliding parts will need to be greased and checked for wearing. Regular plant and vehicle maintenance is carried out and will form part of the company's maintenance schedule.

D.2.4 Management

Management of the activity will be as described in Attachment C.

D.2.5 Emissions

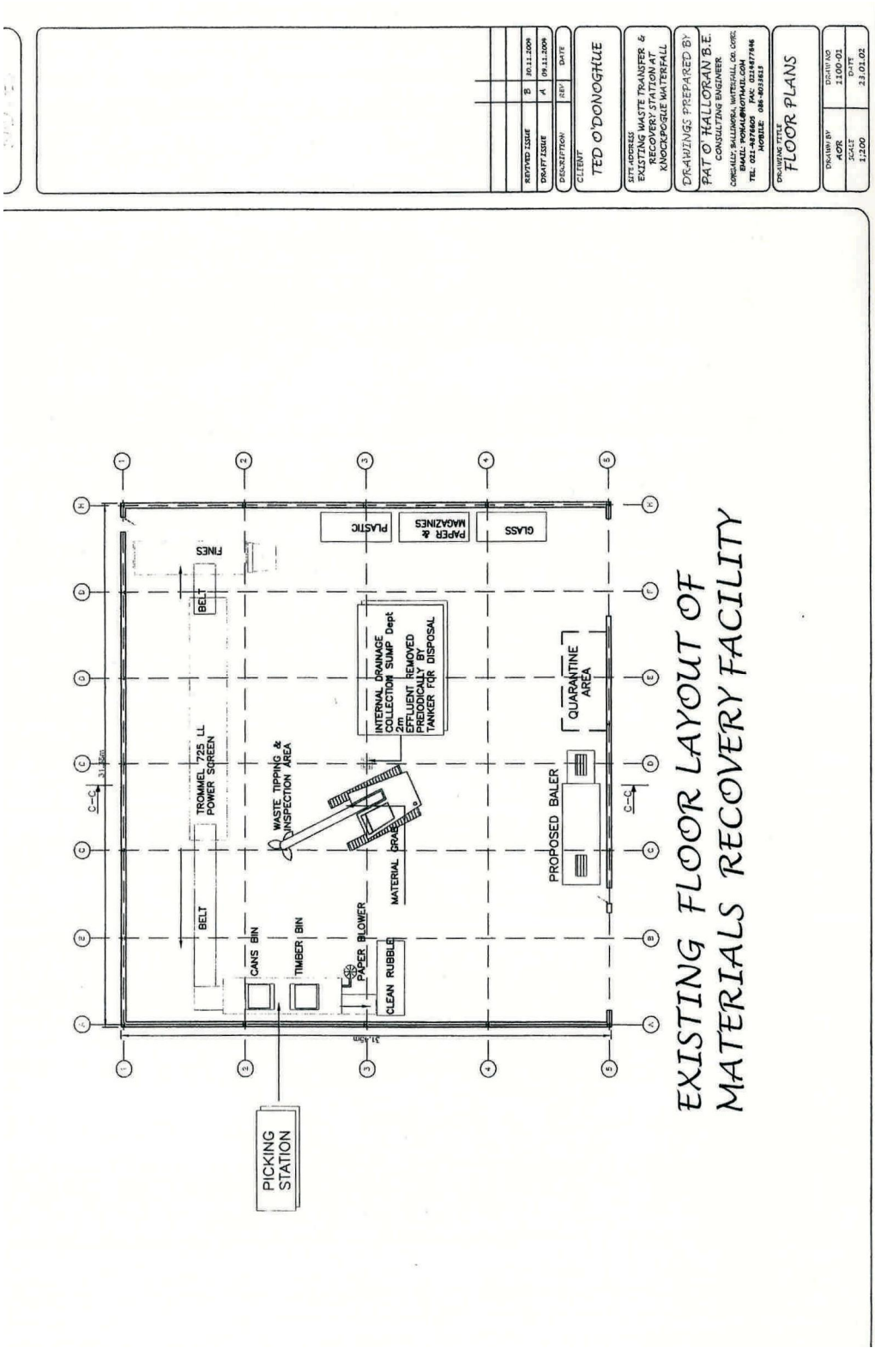
The only emissions during normal operation will be dust, noise and leachate. The dust and noise will be generated by waste collection vehicles entering and exiting the Transfer/Recycling Station and operation of the plant on site. Dust emissions will be monitored regularly and controlled by regularly spraying water over the site hardstand surface and access roads. Noise emissions will be monitored regularly and controlled by carrying out the recovery operations inside the Waste Transfer/Recovery Facility.

Leachate will be generated from the tipping of waste in the Transfer/Recovery Facility. This Leachate will be gathered in the Leachate collection system.

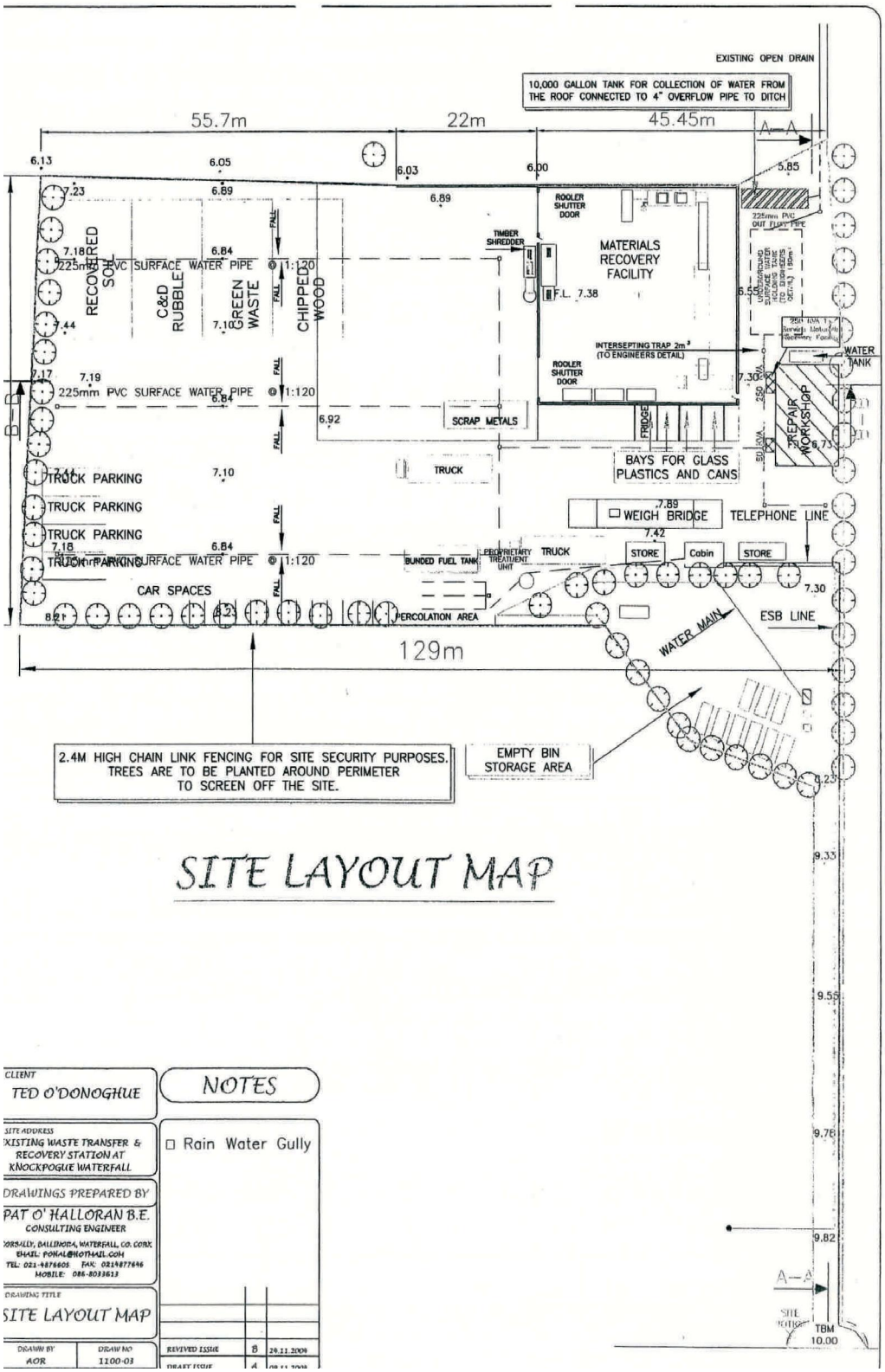
LANDFILLS

The following Sections D3 to D7 should only be completed for Landfill Applications. Reference should be made to the Agency landfill manual 'Landfill Site Design (2000)' when completing this section.

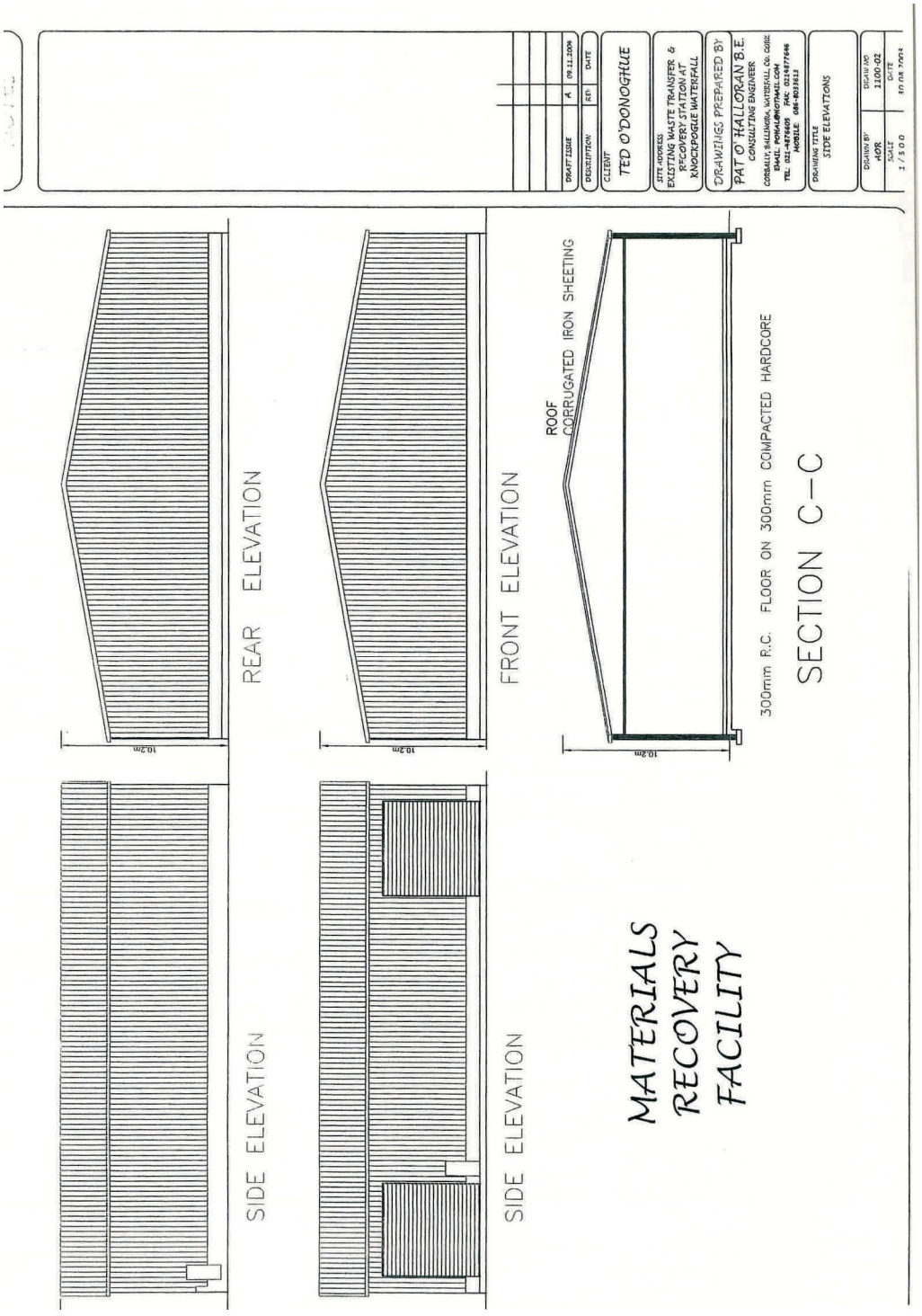
DRAWING NUMBER 1 (1100-01) EXISTING FLOOR LAYOUT PLAN



DRAWING NUMBER 2 (1100-03) SITE LAYOUT MAP



Drawing Number 3 (1100-02) Side Elevations.



SECTION E EMISSIONS

Give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made.

The applicant should address in particular any emission point where the substances listed in the Schedule of S.I. 394 of 2004 are emitted.

E.1 Emissions to Atmosphere

Details of all point emissions to atmosphere should be supplied. Table E.1.(i) (for Landfill Gas Flare emissions) must be completed for all landfills with a flare. Complete Table E.1(ii) and E.1(iii) for all other main emission points, including stack sources (incinerator stacks, landfill gas utilisation plants, air handling unit emissions etc.). Complete Table E.1(iv) for minor/fugitive/ground emission points.

Attachment E.1 Emissions to Atmosphere

Baseline air quality monitoring regarding Benzene, SO2, and N02 concentrations at locations in the vicinity of the facility was carried out and the results of which are available in Volume 2 Section 9.3 of the attached EIS. Generally, the results showed the air quality was typical of a rural area with concrete flooring, vehicle movements and resultant wind blown dust. Therefore, no regular monitoring for air quality is proposed.

Dust monitoring was carried out twice during 2007 at the facility. The containers were exposed from 9th July – 3rd August and the second round of sampling was conducted from 3rd August – 7th September 2007.

The results of the 2007 dust monitoring events are outlined in the table below.

Table 4.3: Dust Monitoring Results 2007

Location	17th April - 3rd May 2007
D1	205
D2	109
D3	161
D4	218

The levels at the 4 locations are within the conditions stated in the EPA licence for the facility for both dust deposition surveys carried out in during June to September 2007. It is proposed to continue monitoring the dust levels at these 4 locations throughout the lifetime of the waste activities at the facility.

E.2 Emissions to Surface Waters

Attachment E.2 Tables E.2(i) and E.2(ii) should be completed where relevant.

Surface water from the hardstanding areas at the facility drain to an oil interceptor at the rear of the workshop building. Run-off from this interceptor flows to the land-drain which subsequently flows to the Curraheen River. Monitoring locations SW2 and SW3 are located upstream and downstream of the discharge respectively. Monitoring locations SW1 represents the discharge from the oil interceptor. Run-off from the roof areas are collected in holding tanks. Monitoring results from the 3 surface waters are reported in Tables E.2(i) and E.2(ii).

All treated surface water run-off and treated wash water will be discharged to the open land drain located at the south east corner of the site. This is the potential area most at risk from surface discharge contamination. However, due to the control measures proposed in attachment F.1.4 the risk of contamination at this location is minimal.

E.3 Emissions to Sewer

Attachment E.3 Tables E.3(i) and E.3(ii) should be completed, where relevant.

Ted O' Donoghue and Sons Ltd Waste Disposal do not discharge any effluent or sewage from the site to sewer. All domestic sewage generated on-site will be treated by a waste water treatment system with a subsequent percolation area. Consequently, there will be no discharge to sewer from the facility.

E.4 Emissions to Groundwater

Describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6, and 7 of Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution by certain dangerous substances.

Table E.4(i) should be completed, as relevant, for each source.

Supporting information should form **Attachment E.4**

Attachment E.4 Emissions to Groundwater

Percolation from the site wastewater treatment system discharges to the groundwater. Presently there is one borehole installed at Ted O'Donoghue and Sons Ltd Waste Disposal site and is used as a municipal water source (the source being the underlying groundwater).

There will be 1 point emission to ground in the waste management facility (percolation area associated with the sewage treatment plant).

Table E.4 Ground Water Emission

Emission Ref	Location	Composition	Frequency	Sampling proposed
SL1	Percolation area to ground from the sewage treatment plant	Treated effluent from treatment plant	Constant	None

E.5 Noise Emissions

Give particulars of the source, location, nature, level, and the period or periods during which the noise emissions are made or are to be made.

Table E.5(i) should be completed, as relevant, for each source.

Supporting information should form **Attachment E.5**

Attachment E.5: Noise Emissions

Noise emissions are produced from the current activities ongoing at the facility. The primary sources of noise at the Waste Transfer Station are outlined as follows:

- Heavy goods vehicles (HGVs) delivering waste to and collecting waste from the site.
- HGVs tipping waste materials in the waste inspection area within the main waste building at the site.
- 1 excavator for waste/recyclables handling within the main waste building at the site.

The results of the noise monitoring at locations N1-N5 is presented in Table E.5.1.

Table E.5.1 Ambient Measurements (Locations N1-N5)

Monitoring Location	Time and Date	L_{Aeq}, dB(A)	L_{A90}, dB(A)	L_{A10}, dB(A)	Main Noise Sources
N1	24/04/08 14:47	57.7	41.4	45.0	Local traffic, workshop noise
N2	24/04/08 15:34	55.2	41.4	59.8	Vehicle movements. Noise from transfer building.
N3	24/04/08 16:08	62.7	50.0	64.0	Noise from transfer building, site truck movements
N4	24/04/08 16:44	61.9	45.4	65.6	Traffic on local road, no€ site noise
N5	24/04/08 17:22	66.4	46.0	65.3	Traffic on local road, no site noise

As stated in F. 1.3 the overall noise output from the site is minimal due to the control measures specified. Most importantly, all waste tipping and processing will occur inside the transfer station. Therefore section F.6 highlights that an annual environmental noise survey will be conducted at the waste management facility and will focus on noise measurements at boundary and noise sensitive locations.

Measurements at location N1 were recorded adjacent to the O' Donoghue family residence adjacent to the entrance to the facility. Intermittent traffic noise from the adjacent public road contributed to the ambient levels. Two trucks entered the facility during the 30-minute monitoring period. Noise from the workshop was audible at this monitoring location. The L_{Aeq} average noise level was recorded at 57.7dB(A).

Noise measurements at N2 and N3 were recorded at the north-western and north-eastern corners of the site respectively. Site vehicle movements and the mechanical grab within the transfer station building contributed to the annual were the main noise sources. The average noise levels were recorded at N2 and N3 were 55.2dB(A) and 62.7dB(A) respectively. The level at N3 was influences by a truck idling close to the monitoring position.

- The earthen mound at the north-western boundary provides significant landscape and acoustic screening of the activities in the facility. Tree cover along the eastern boundary also alleviates the noise impact to the west.

- The noise from the facility was not considered a major source at locations N4 and N5. Intermittent traffic movements were the main noise source. There was no activity audible from the waste facility at locations N4 and N5.

From the above it can be concluded that the O' Donoghue waste transfer facility is in compliance with the requirements of the waste permit for the facility. The facility is not a source of nuisance to surrounding sensitive areas. All waste segregation activity takes place within the waste transfer building. Truck movements are the main noise associated with the operation of the business.

There will be 2 noise emission sources from the facility as listed below in Table E.5.2.

Table E.5.2: Noise Emissions

Emission Ref	Location	Composition	Frequency	Sampling Proposed
NE1	Waste trommel	Noise from waste processing	Intermittent	ISO1996/1 – annual noise
NE2	Waste timber shredder outside the transfer station	Noise from waste timber processing	Intermittent	As above

The main noise sources associated with the operation of the facility are outlined below.

Table E.5.3: Noise Emissions

Source	Noise Level
Forklift	69dB(A) @ 5m
Mechanical Grab	75dB(A) @ 5m
Skip Truck (idling)	72dB(A) @ 3m
Wood shredder	82dB(A) @ 5m

E.6 Environmental Nuisances

Attachment E.6 should contain the appropriate documentation. Information provided should follow the sequence, and use the headings as relevant established in Table D.6. Additional advice on completing this section is provided in the *Guidance Note*.

TABLE E.6 ENVIRONMENTAL NUISANCES

Bird Control	**Control method specified**	**yes** ☒	**no** ☒	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Dust Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Fire Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Litter Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Traffic Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Vermin Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Road Cleansing	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

E.6.1 & E.6.6 Bird Control

Specific attention will be given during the operation of the facility to reduce the potential nuisance of pests. The following procedures will be followed to prevent any problems with pests at the proposed site. All waste delivered to the proposed facility will be removed by the end of the each day. The tipping floor will be washed and litter picked up on a daily basis. All operations, including waste handing, will be performed inside the enclosed facility.

Bird-deterrent measures including fixing wire mesh to horizontal surfaces where birds can gather will be installed. All vehicles especially refuse collection vehicles

to and from the facility will be covered. Any cracks or openings on the surface of the site will be eliminated or screened to prevent entry of pests.

A routine visual inspection of the facility for potential pest habitats will be carried out and corrective action taken when needed. Professional licensed pest control specialists with expertise in controlling specific pest populations, and using rodent baits/ poison and insect sprays will be hired when needed. As the site will be unsuitable for rodents and given the mitigation measures mentioned above, it is unlikely that this will be an issue of likely concern.

E.6.2 Dust Control

Dry periods of weather can lead to the generation of dust. Dust is expected to be generated primarily during the construction phase of the proposed development. Measures are outlined in the EIS to mitigate construction impacts in general (see EIS Volume 2 Section 7). During the operation phase waste deliveries will occur within the main building and mainly consist of dry solid material, packaging etc. The facility also accepts small quantities of Construction and Demolition waste which has the potential to generate dust, although loading and processing will occur indoors.

Mitigation Measures

The following mitigation measures will be employed to prevent or minimise the impact of dust arising at the proposed facility:

1. All waste activities will be carried out indoors
2. Facility roads will be cleaned regularly with street-sweeping equipment.
3. Waste delivery vehicles will be washed to remove dust-generating dirt..
4. Buildings will also be aligned away from the line of the prevailing wind.
5. Dust suppression systems fitted with odour neutralising compounds will be installed over tipping floor, to keep dust down.
6. All waste will be removed daily and the tipping area washed to minimise the impact of dust.

E.6.3 Fire Control

Emergency response procedures have been prepared and submitted to the EPA as part of the Environmental Management Programme. All site operators and staff will be made aware of the dangers of fires and how to treat them.

Precautions to be taken in order to ensure fire safety:-

1. Fire alarm and defence systems will be fitted in the reception area.
2. All operatives will receive basic instruction on fire safety and protocol.
3. A number of operatives are to attended fire officer training courses. At least one of these fire officers will be on-site at all operational times.
4. A Fire Safety Drill and a Code of Practice will be developed by the site management. All staff will be fully trained with this code. The fuel storage

area will be positioned a distance from the reception building within a bunded enclosure.

The phone number of the local tire station will be posted in the reception area at all times. A spare set of keys to be used in an emergency will be available at the security gates. Security will also be issued emergency call out numbers for the site management team and a full set of plans and drawings of the main infrastructure for the facilities.

The following actions will be taken in the event or suspicion of fire on-site:

Waste arriving on the site, which is observed to be smoking, will be directed to the emergency storage area. It will then be inspected by the management who will decide whether to extinguish it themselves or alert the tire authorities.

If fire is discovered within the facility the area will be isolated to stop it spreading. The site manager will be contacted immediately. All personnel will evacuate the area to a safe location until the fire brigade is called. Facility staff will not return to work until such a time the fire officer deems it safe to do so. If a fire occurs on-site the EPA will be informed of such instances by phone and will be followed by a full written report detailing the incident.

E.6.4 Litter Control

Wind blown litter either from the proposed site, or from vehicles travelling to and from the site, may become unpleasant and classified as a nuisance. However, waste will be baled, wrapped securely and placed in enclosed articulated lorries before exiting the facility, which will help reduce the impact of litter.

Mitigation Measures

Implementation of some of the following control measures will minimise the potential of litter problems:

1. All waste handling and processing will be carried out in the enclosed facility only.
2. All incoming and outgoing vehicles will be covered. A daily litter patrol of the site and nearby roads will be carried out by a site operator, and a daily inspection sheet completed.
3. Litter on-site, around the perimeter, on immediately adjacent properties and on approaching routes will be collected immediately.
4. Regular cleaning of the tipping floor and good housekeeping practices will minimise the amount of loose waste blown outside.
5. A sweeper has been purchased for the facility and is used daily to remove litter.
6. With these mitigation measures in place, it is envisaged that there will be no significant impact associated with litter from the proposed Sustainable Resource Recovery Facility.

E.6.5 Traffic Control

The following measures can be used to control the traffic into and out of the site.

The facility manager will monitor the entrance and exit of vehicles. There will be adequate parking spaces on the site of the proposed development. The traffic control point is set back from the main entrance which will prevent the queuing of vehicles on the state roads. All queuing will take place onsite where there is enough capacity for parking. Buildings and roads are positioned to reduce intersection, the need to reverse vehicles and sharp turns. It will be ensured that the fleet is flexible to respond to the requirements of the local traffic network. A clean and well serviced fleet will be maintained at all times.

E.6.6 Vermin Control

Specific attention will be given during the operation of the facility to reduce the potential nuisance of pests. The following procedures will be followed to prevent any problems with pests at the proposed site. All waste delivered to the proposed facility will be removed by the end of the each day. The tipping floor will be washed and litter picked up on a daily basis. All operations, including waste handing, will be performed inside the enclosed facility.

Any cracks or openings on the surface of the site will be eliminated or screened to prevent entry of pests.

A routine visual inspection of the facility for potential pest habitats will be carried out and corrective action taken when needed. Professional licensed pest control specialists with expertise in controlling specific pest populations, and using rodent baits/ poison and insect sprays will be hired when needed. As the site will be unsuitable for rodents and given the mitigation measures mentioned above, it is unlikely that this will be an issue of likely concern.

E.6.7 Road Cleansing

Control of mud and debris on site and approach roads will be achieved by a number of means:

1. Facility roads will be cleaned regularly with street-sweeping equipment.
2. Waste delivery vehicles will be washed before they leave the proposed facility to remove dust generating dirt.
3. A wash-bay facility is situated on the site, to be used by collection/ delivery fleet on a regular basis to maintain trucks clean

SECTION F CONTROL & MONITORING

F.1: Treatment, Abatement and Control Systems

Describe the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation/facility. Details of treatment/abatement systems (air and effluent emissions) should be included, together with appropriately scaled schematics (≤A3) as appropriate.

For each Emission Point identified complete Table F.1 of the Annex, and include detailed descriptions and appropriately scaled schematics (≤A3) of all abatement systems.

Attachment F.1 should contain any supporting information.

Attachment F.1: Treatment, Abatement and Control Systems

To Atmosphere

The management of the site including waste handling and other facility procedures employed serve as successful abatement techniques.

All waste related activities are currently and will continue to be restricted to the main waste building. The hardstanding areas of the site are periodically sprayed with water during periods of dry weather. All waste is covered while being transported. These measures reduce the generation and release of dust to the atmosphere.

Operations at the waste transfer facility involve the transfer and compaction of solid waste only. No liquids, agricultural or sewage sludges will be accepted at the site. Waste accepted at the facility will have generally undergone relatively little decomposition. The storage of waste in sealed containers following compaction and fast turnaround times on site means that the potential for odour problems arising at the facility will be minimised.

To Surface water/Sewer/Groundwater

All surface water collected on-site will pass through the oil interceptor prior to discharge. A surface water network collects surface water run-off from the hardstanding area and rain water from the roof, which are directed to a oil interceptor before discharge through a 170mm pipe to open drain leading to the Curraheen River. The oil interceptors on-site are emptied and cleaned regularly.

F.2- F. 9 Monitoring and Sampling Points

Programmes for environmental monitoring should be submitted as part of the application. These programmes should be provided as **Attachments F.2 to F.6** and meet the advice published by the Agency in the relevant BAT Note. For Landfills the additional **Attachments F.7 to F.8** should be completed. Furthermore for a landfill application the applicant must refer to the Agency *Landfill Monitoring Manual (2003)* for further details on monitoring requirements for proposed facilities.

Include details of monitoring/sampling locations and methods.

F.2 Air - to include Dust, Odour

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐
Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

Attachment F.2 Air

The monitoring programme for dust and odour at the facility is outlined in the table below. The location of the monitoring points is shown in Figure F.1.

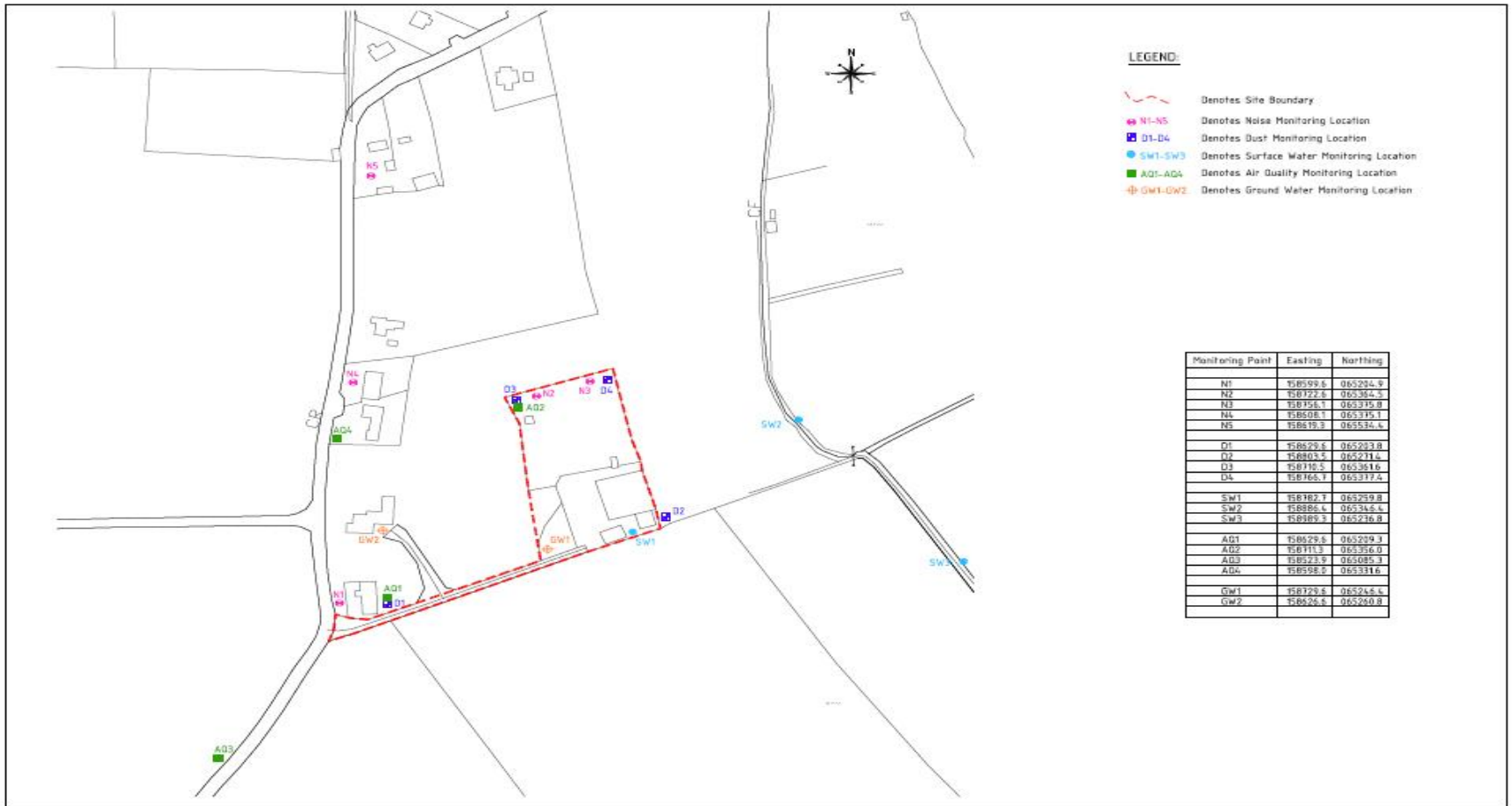
Table F.2 Dust & Odour Monitoring Locations

Parameter	***Monitoring Location***	***Monitoring Frequency***	***Analytical Method***
Dust	D1, D2, D3, D4	Bi-annually, twice between May and September	VDI 2119
Odour	OD1 and OD2	Annually	--

F.3 Surface Water

Monitoring of surface water shall be carried out at not less than two points, one upstream from the waste facility and one downstream.

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐
Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐



Monitoring Point	Easting	Northing
N1	158599.6	065204.9
N2	158722.6	065364.3
N3	158756.1	065375.8
N4	158608.1	065315.1
N5	158619.3	065534.4
D1	158629.6	065203.8
D2	158803.5	065271.4
D3	158710.5	065361.6
D4	158766.7	065317.4
SW1	158782.7	065259.8
SW2	158886.4	065346.4
SW3	158989.3	065236.8
AQ1	158629.6	065209.3
AQ2	158711.3	065356.0
AQ3	158523.9	065085.3
AQ4	158598.2	065331.6
GW1	158729.6	065246.4
GW2	158626.6	065260.8

REV.	AMENDMENT	BY	DATE
A	ISSUE FOR WASTE LICENCE	JOD	09/09/2008

Client: Ted O'Donoghue & Sons Waste Disposal Ltd.

GLENSIDE ENVIRONMENTAL SERVICES
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Project Name: Ted O'Donoghue & Sons Knockpage, Waterfall, Co. Cork

Drawing Title: ENVIRONMENTAL MONITORING LOCATIONS

Scale: N.T.S
Drawn By: J.O'Donoghue
Date: JULY 2008
Drawing No: Figure F1
Rev: A

Attachment F.3 Surface Water

Monitoring of surface water will take place at the point of discharge after the outlet pipe from the oil interceptor. This sample is currently taken and analysed monthly in accordance with the current EPA licence for the facility. The outlet from the oil interceptor discharges to the Curraheen River. The Curraheen River is sampled upstream and downstream of the discharge point. The results of the analysis from samples taken in April 2008 is shown in tables in Annex 1.

Table F.3 Surface Water Monitoring & Frequency

Parameter	***Monitoring Location/ Coordinates***	***Monitoring Frequency***
Suspended Solids	SW1 (E 158859 N 065293)	Monthly
Mineral Oils	SW1 (E 158859 N 065293)	Monthly
Total Ammonia (NH4-N)	SW1 (E 158859 N 065293)	Quarterly
BOD	SW1 (E 158859 N 065293)	Annually
Total P/orthophosphate	SW1 (E 158859 N 065293)	Monthly
Faecal Coliforms	SW1 (E 158859 N 065293)	Annually

F.4 Sewer Discharge

Monitoring of sewer discharge shall be carried out at the point specified by the local authority/Agency.

Monitoring Arrangements specified	**yes** ☐	**no** ☐	**not applicable** ☒
Monitoring points identified, (plus 12-figure grid references)	**yes** ☐	**no** ☐	**not applicable** ☒
Attachment included	**yes** ☐	**no** ☐	**not applicable** ☒

There are no discharges to sewer from the facility.

F.5 Groundwater

Groundwater monitoring is required at all landfill facilities; and certain other waste facilities depending on waste activities and the underlying aquifer vulnerability.

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

Table F.5 Groundwater Monitoring & Frequency

Groundwater monitoring of onsite well GW1 is carried out annually for parameters listed below.

Parameter	***Monitoring Location/ Coordinates***	***Monitoring Frequency***
pH	GW1 (E 158707 N 065258)	Annually
Nitrate	GW1 (E 158707 N 065258)	Annually
Total Ammonia	GW1 (E 158707 N 065258)	Annually
Conductivity	GW1 (E 158707 N 065258)	Annually
Chloride	GW1 (E 158707 N 065258)	Annually
Faecal Coliforms	GW1 (E 158707 N 065258)	Annually

F.6 Noise

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐
Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

Attachment F.6 Noise

There are 5 no. noise monitoring locations; 2 on-site and 3 and local sensitive locations. The noise is measured annually in accordance with the current licence requirements.

F.7 Meteorological Data

Monitoring Arrangements specified	**yes** ☐	**no** ☒	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☐	**no** ☒	**not applicable** ☐
Attachment included	**yes** ☐	**no** ☒	**not applicable** ☐

Application for Landfills require the additional Attachments F.7 to F.8, to be completed:

F.8 Leachate

Monitoring Arrangements specified	**yes** ☐	**no** ☐	**not applicable** ☒
Monitoring points identified, (plus 12-figure grid references)	**yes** ☐	**no** ☐	**not applicable** ☒
Attachment included	**yes** ☐	**no** ☐	**not applicable** ☒

SECTION G RESOURCES USE & ENERGY EFFICIENCY

G.1 Raw Materials, Substances, Preparations and Energy

Attachment G.1 should contain a list of all raw, product and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity. Information on any insecticides, herbicides or rat poisons etc. should also be provided with their respective data and safety sheets. The Standard Forms, provided in Annex 1, should be used in the description of these materials, substances, etc., where relevant. Additional advice on completing this section is provided in the *Guidance Note*.

Attachment included	**yes** ☒ **no** ☐ **not applicable** ☐

Attachment G.1 Raw Materials, Substances, Preparations and Energy

Water Consumption

Water is supplied to the site from a private well located on site. It is estimated that the average daily demand is approximately $3m^3$ per day.

Fuel Consumption

Estimates of the quantities of fuels and oil consumed annually during the operation of the waste transfer station are included below.

Resources	**Quantities**
Diesel	180,000 litres
Hydraulic and Engine Oil	180 litres

G.2 Energy Efficiency

A description of the energy used in or generated by the activity must be provided in **Attachment G.2**.

Attachment included	**yes** ☒ **no** ☐ **not applicable** ☐

Attachment G.2. Energy Efficiency

Energy Consumption

There are no intensive power requirements at the facility; the main power demands are for the office & garage buildings. The quantity of electricity used in 2007 was 12,000 Units (KWh).

Resources	**Quantities**
Disinfectant	3 litres (concentrate)
Truck Wash Detergent	30 litres
Electricity	11402 KWH

SECTION H MATERIALS HANDLING

H.1 Waste Types and Quantities – Existing & Proposed

Provide an estimation of the quantity of waste likely to be handled in relation to each class of activity applied for. This information should be included in Table H.1(a).

TABLE H.1(A). QUANTITIES OF WASTE IN RELATION TO EACH CLASS OF ACTIVITY APPLIED FOR

Waste Management Act 3rd Schedule (Disposal) Activities			Waste Management Act 4th Schedule (Recovery) Activities		
Class of Activity Applied For		Quantity (tpa)	Class of Activity Applied For		Quantity (tpa)
Class 1			Class 1		
Class 2			Class 2	✓	1,000
Class 3			Class 3	✓	3,000
Class 4			Class 4	✓	10,000
Class 5			Class 5		
Class 6			Class 6		
Class 7			Class 7		
Class 8			Class 8		
Class 9			Class 9		
Class 10			Class 10		
Class 11	✓	16,000	Class 11		
Class 12	✓	20,000	Class 12		
Class 13	✓	36,000	Class 13	✓	10,000

In Table H. 1 (B) provide the annual amount of waste handled/to be handled at the facility. Additional information should be included in **Attachment H.1.** The tonnage per annum should be given of that expected for the life of the licence, with at least the next five years tonnages provided. For Landfill Review applications provide an estimate of the quantity of waste already deposited in (i) lined cells; (ii) unlined cells.

TABLE H.1(B) ANNUAL QUANTITIES AND NATURE OF WASTE

Year	Non-hazardous waste (tonnes per annum)	Hazardous waste (tonnes per annum)	Total annual quantity of waste (tonnes per annum)
2008	38,000	0	38,000
2009	42,000	0	42,000
2010	45,000	0	45,000
2011	48,000	0	48,000
2015	60,000	0	60,000

A detailed inventory of the types and quantities of wastes currently handled at the site and proposed to be handled should be submitted as Table H.1 (C).

TABLE H.1 (C) WASTE TYPES AND QUANTITIES

WASTE TYPE	TONNES PER ANNUM (existing)	TONNES PER ANNUM (proposed)	TOTAL (over life of site) tonnes
Household	12,880	30,000	30,000
Commercial	1,840	6,600	6,600
Sewage Sludge	Zero	Zero	Zero
Construction and Demolition	7,514	19,602	19,602
Industrial Non-Hazardous Sludges	Zero	Zero	Zero
Industrial Non-Hazardous Solids	766	3,798	3,798
Hazardous ***(Specify detail in Table H 1.2)**	Zero	Zero	Zero
Inert Waste imported for restoration purposes	COMPLETE FOR LANDFILL & CONTAMINATED LAND FACILITIES ONLY		

*** TABLE H.1.2 HAZARDOUS WASTE TYPES AND QUANTITIES**

HAZARDOUS WASTE	DETAILED DESCRIPTION * REFERENCE SHOULD BE MADE TO THE RELEVANT EUROPEAN WASTE CATALOGUE CODES AS PRESENTED BY COMMISSION DECISION 2000/532/EC	Tonnes Per Annum (Existing)	(Tonnes Per Annum Proposed)
Waste Oil			
Oil filters			
Asbestos			
Paint and Ink			
Batteries			
Fluorescent Light Bulbs			
Contaminated Soils			
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)			

Attachment H.1 should contain any relevant additional information.

It should be noted that an applicant may be issued with a licence which restricts the type of wastes which may be deposited.

Attachment H.1

There is no proposal to accept hazardous waste at the facility. Where hazardous is accepted in skips, any material will be stored in a bunded quarantine area and removed to a licensed facility. The destination of waste recovered at the facility in 2007 are listed in Table H.2. A full list of the EWC codes required to be accepted at the facility are contained in Appendix 7.

Table H.2: Destination of Recovered Waste From Facility

Waste Destination Facility (Facility Name and Address)	**(Disposal/Recovery)**	**Licence/Permit Number at destination facility**
Veolia Forge Hill Kinsale Rd Co Cork	Recovery	292/06
Clear Point Recycling Carrick-on-Suir Co Tipperary	Recovery	Wmwp1205
J A Wood Ltd Sandstone Quarry Ballygarvan Co Cork	Recovery	Cks88/04
Pouladuff Dismantlers Ltd Pouladuff Rd Cork	Recovery	Cks 168/04
Envriogrind Ltd Pettigo Co Donegal	Recovery	Env/143/Wp0405
Jermy Lynch Ballinora Waterfall Co Cork	Disposal	Cks 260-05
Gypsum Recycling Ireland Naas Co Kildare	Recovery	Wmp 238-2006
Tullagower Quarries Ltd Kilrush Co Clare	Recovery	015/05/Wpt/Cl
Grangers Sawmills Enniskeane	Recovery	Po594-02
Country Clean Shanballymore Mallow Co Cork	Recovery	04-04
Kevin Mccarthy Callatrim Bandon Co Cork	Disposal	395-07
Scartnamore Trading Ltd Lauragh Indl Est Bandon Co Cork	Disposal	Cks 275-05
Diarmud O Brien Crossmahon Bandon Co Cork	Disposal	433-07
W F Plastics Recycling Bernard O Brien Waterfall Co Cork	Recovery	Cks 437-07
National Recycling Churchfield Cork	Recovery	06-07
Barry Cronin Castleland Fills Castle Barrett Mourneabbey Mallow Co Cork	Disposal	Cks 80-03
C T O Rostellan Midelton Co Cork	Recovery	Cks 283-06
C T O Kinsale Rd Landfill Cork	Recovery	12-1

H.2 Waste Acceptance Procedures

Procedures for checking waste loads as they arrive at the facility must be included. These should follow the requirements of the Agency's Waste Acceptance Manual. A copy of these procedures and other associated documentation should be included as Attachment H.2.

Attachment H.2 Waste Acceptance Procedures

The facility will operate at the times shown in Attachment C.3. Staff members operating in the traffic control cabin will log all waste loads arriving at the site. The following information will be recorded for the site records:

1. Description of the waste including waste types, composition, form and relevant EWC codes etc.
2. The origin of the waste including all customer details.
3. The weight of the waste load.

This information will be collated and inputted into a site database which will be relevant for environmental reporting and inspections by the EPA etc. All waste loads arriving to the site will be tipped out inside the main facility building and inspected prior to processing. If staff members are satisfied that the load is not contaminated the material will be processed as required. Any loads considered to be suspect will be removed to a quarantine bay for further inspection by staff. If site management is not satisfied with the quality or contents of the load it will be returned to the customer. Similar controls will be put on all recyclables/residues leaving the site.

H.3 Waste Handling

Waste handling and the operating procedures used at the facility including waste treatment processes should be described in **Attachment H.3**. Included in the attachment should be information on the plant used on site and on the methods and processes for handling waste on-site. Special requirements hold for contaminated soil facilities, see *Guidance Note*.

Attachment H.3 Waste Handling

Cardboard and Packaging Waste

The cardboard removed from the floor of the facility building and is placed next to the horizontal baler and baled. The plastic is stored in a skip located in the waste transfer station building and when it is full it is baled. Any paper and newsprint removed from the tipped waste is stored in a skip located in the waste transfer station building and when this is filed it is baled in the horizontal baler. This material is generally dry and clean and requires minimum handling and processing. Nuisance odours should not be an issue due to the nature of the material.

All bales are stored in a forty foot curtain side trailer and when full they are transferred to Glyntown Enterprises Ltd, Sarsfield Court Industrial Estate, Glanmire, Co. Cork for recycling.

Mixed Commercial and Industrial Waste

This type of material will be a mix of packaging waste, recyclables, and organic matter. The facility will operate a waste processing operation within the facility to separate out each recoverable fraction, as discussed in Attachment D.3. The organic fraction of the mixed waste has the potential to generate nuisance odours and attract nuisance birds, flies and vermin. This potential nuisance will not be an issue at the new facility for the following reasons:

All of the waste processing will be carried out within the facility which will reduce odour development and eliminate the potential for leachate generation. Mixed waste loads arriving at the facility will not be allowed to stand preventing odours from being generated and attraction of flies. The material will be moved through the waste processing system soon after the material has been tipped.

The organic fraction will be separated out from the mixed waste and collected in a trailer. When full this trailer will be moved off-site for further recovery.

In addition, an application for a Landfill requires Section H.3.a to be completed:

H.3a Waste Handling at the Landfill Facility

State whether all waste will be subject to treatment prior to landfilling. Provide information as to the quantities of biodegradable municipal waste and how the targets of the Landfill Directive (1999/31/EC) relating to that waste type are to be achieved. In particular describe how the following will be achieved:

(a) a reduction by 16/07/06 to 75% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;

(b) a reduction by 16/07/09 to 50% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;

(c) a reduction by 16/07/16 to 35% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;

(d) Evidence should be provided to show that energy will be used efficiently.

H.4 Waste Arisings

Waste arisings should be considered for all contaminated soil applications. Details of all waste materials generated on the site including, name, description and nature as well as the source(s) should be identified. The quantities of each type of waste generated on an annual/monthly basis should be calculated and stated in Tables H.1(i) and H. 1(ii) of the application form. Applicants should also provide conversion factors used to relate volume (m^3) and tonnage (t) for their waste stream.

Attachment H.4 Waste Arisings

Not applicable for this application.

SECTION I EXISTING ENVIRONMENT & IMPACT OF THE FACILITY

Detailed information is required to enable the Agency to assess the existing environment. This section requires the provision of information on the ambient environmental conditions at the site prior to the commencement of waste management activities or prior to the receipt of a review application.

Where development is proposed to be carried out, being development which is of a class for the time being specified under Article 24 (First Schedule) of the Environmental Impact Assessment Regulations, the information on the state of the existing environment should be addressed in the EIS. **In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIS.**

I.1. Assessment of atmospheric emissions

Describe the existing environment in terms of air quality with particular reference to ambient air quality standards.

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to the atmosphere are likely to impair the environment.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Attachment I.1 should also contain full details of any dispersion modelling of atmospheric emissions from the activity, where required.

Attachment I.1 Assessment of atmospheric emissions

Dust

The dust deposition rates at all locations monitored were shown to be significantly lower than the general dust disposition limits recommended by the EPA. Given the current scale of activity at the facility, see Table H.1 (c), it is not anticipated that dust emissions to the atmosphere are likely to impair the environment.

The results of the dust monitoring event from 2007 are outlined in the table below.

Dust Monitoring Results 2007

Location	Total Dust mg/m^2/day	
	9th July – 3rd August 2007	**3rd August – 7th September 2007**
D1	205	149
D2	109	68
D3	161	125
D4	218	178

The levels at the 4 locations are within the conditions stated in the EPA licence for the facility for both dust deposition surveys carried out in during June to September 2007.

The occurrence of odour and litter nuisances have not been observed at the facility. This will be maintained by ensuring that biodegradable waste is transferred off site within 48 hours of arriving on site and that good housekeeping practices are ongoing.

The operation of the existing facility does not have a negative impact on local environment in terms dust, noise, litter or odour at present. Given that the scale of the activities will not be increased substantially, atmospheric emissions from the facility are not likely to impair the environment.

The accompanying EIS provides fuurther information on air quality relating to the facility.

I.2. Assessment of Impact on Receiving Surface Water

Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Table I.2(i) should be completed

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to water are likely to impair the environment.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other relevant information on the receiving environment should be submitted as **Attachment I.2.**

Attachment I.2. Assessment of Impact on Receiving Surface Water

Surface water monitoring was carried out upstream and downstream of the discharge point to the Curraheen River. The details of the monitoring regime are contained in Tables in Annex 1. There was no significant deterioration in water quality as a result of the discharge from the waste facility.

I.3. Assessment of Impact of Sewage Discharge.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other supporting information should form **Attachment I.3.**

Attachment I.3 Assessment of Impact of Sewage Discharge

There is no discharge to sewer from the facility.

I.4 Assessment of impact of ground/groundwater emissions

The scope and detail of this assessment will depend to a large extent on the extent and type of ground emissions at any site, which in turn are related to the risk. Details should be included in **Attachment I.4**. Comprehensive guidelines are contained in the *Application Guidance Note,* and include particular requirements for landfill and brownfield facilities.

Describe the existing groundwater quality. Tables I.4(i) should be completed.

I.5 Ground and/or groundwater contamination

Summary details of known ground and/or groundwater contamination, historical or current, on or under the site must be given.

Full details including all relevant investigative studies, assessments, or reports, monitoring results, location and design of monitoring installations, appropriately scaled plans/drawings (≤A3), documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment I.5**.

I.6 Noise Impact.

Give details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Ambient noise measurements

Complete Table I.6(i) in relation to the information required below:

(i) State the maximum Sound Pressure Levels which will be experienced at typical points on the boundary of the operation. (State sampling interval and duration)

(ii) State the maximum Sound Pressure Levels which will be experienced at typical noise sensitive locations, outside the boundary of the operation.

(iii) Give details of the background noise levels experienced at the site in the absence of noise from this operation.

Prediction models, appropriately scaled maps (≤ A3), diagrams and supporting documents, including details of noise attenuation and noise proposed control measures to be employed, should form **Attachment I.6.**

Attachment I.6. ***Noise Impact***

A noise monitoring survey was carried out at the site in April 2008. The results of the noise surveys determined the ambient noise levels at two site boundary monitoring points and three noise sensitive monitoring points in the vicinity of the facility, provided below. The locations of the points where these results were recorded correspond to the noise monitoring locations shown in Figure F.1.

Measurements at location N1 were recorded adjacent to the O' Donoghue family residence adjacent to the entrance to the facility. Intermittent traffic noise from the adjacent public road contributed to the ambient levels. Two trucks entered the facility during the 30-minute monitoring period. Noise from the workshop was audible at this monitoring location. The L_{Aeq} average noise level was recorded at 57.7dB(A).

Noise measurements at N2 and N3 were recorded at the north-western and north-eastern corners of the site respectively. Site vehicle movements and the mechanical grab within the transfer station building contributed to the annual were the main noise sources. The average noise levels were recorded at N2 and N3 were 55.2dB(A) and 62.7dB(A) respectively. The level at N3 was influences by a truck idling close tot he monitoring position.

The earthen mound at the north-western boundary provides significant landscape and acoustic screening of the activities in the facility. Tree cover along the eastern boundary also alleviates the noise impact to the west.

The noise from the facility was not considered a major source at locations N4 and N5. Intermittent traffic movements were the main noise source. There was no activity audible from the waste facility at locations N4 and N5.

Noise emissions from the facility are mitigated by way of undertaking all waste handling activities at the site within the dedicated Main Waste Building at the site. All waste reception, tipping, inspection, segregation and separate re-loading of recyclable and non-recyclable materials is carried out under enclosed conditions within the waste building.

The processing of all wastes at the site indoors under enclosed conditions significantly reduces the level of noise emissions that would otherwise emanate from the site, were waste handling activities carried out in the open-air in an un-covered yard.

Noise attenuation has been incorporated into the design of the main waste reception building. The lower sidewalls of the building are of reinforced concrete construction to withstand and prevent damage from waste tipping and loading within the building. The upper sidewalls and roof of the building are constructed of closed-panel composite cladding, which minimises potential airborne noise emissions from the facility.

Drivers transporting waste/recyclables to and from the site are fully trained and instructed with regard to speed limits that must be observed on approach to the site, and internally within the site. Drivers are also instructed with regard to the movement of waste skips within the yard at the site, with regard to controlled set-down and loading of skips, in order to minimise noise generated at the site.

The main impact from the increase in waste tonnages is expected to arise from vehicle noise due to increase in traffic flow. Refer to Section 8 of the EIS for impact assessment.

I.7 Assessment of Ecological Impacts & Mitigation Measures

The ecology of the site and the surrounding area should be assessed in the vicinity of the large-scale waste facilities such as landfill or incinerator developments. An assessment of the ecology should form **Attachment I.7.** Comprehensive guidelines are contained in the *Application Guidance Note*

Attachment I.7 Assessment of Ecological Impacts & Mitigation Measures

Refer to Ecology Section 10 in EIS.

SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE

Describe the existing or proposed measures, including emergency procedures, to minimise the impact on the environment of an accidental emission or spillage.

Also outline what provisions have been made for response to emergency situations outside of normal working hours, i.e. during night-time, weekends and holiday periods.

Describe the arrangements for abnormal operating conditions including start-up, leaks, malfunctions or momentary stoppages.

Supporting information should form **Attachment J.**

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

Emergency information is posted inside the facility containing telephone numers of emergency services. PPE is held in the site office and is available on request. Fire fighting equipment, spillage kits and first aid equipment is made available on site.

All fuel oils are contained in a 19,000 gallon bunded area. All effluent from site hardstanding areas passes through an oil interceptor before discharge to land drain.

The facility manager is on site at all times and is contacted in the event of any emergency incident. The manager will make a decision to contact outside emergency services based on the nature of the incident.

SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION AND AFTERCARE

Describe the existing or proposed measures to minimise the impact on the environment after the activity or part of the activity ceases operation, including provision for post-closure care of any potentially polluting residuals.

For Landfill Applications, capping proposals are required, and reference should be made to the *Landfill Manual on 'Restoration and Aftercare'* published by the Agency, when completing this section.

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

Attachment K.1 Remediation, Decommissioning, Restoration & Aftercare

It is envisaged that the facility will continue to operate over an open-ended period. In the event of a cessation of activities at the site a full closure plan will be developed to decommission the facility to ensure no environmental pollution occurs. The Closure Plan will involve removal of all waste from the site to appropriate destinations and decommissioning of all potential sources of environmental pollution on site. All plant and vehicles will be removed from the site. All tanks including fuel storage and effluent storage tanks will be emptied, cleaned where appropriate, and decommissioned. All effluent will be removed by an authorised operator.

The facility will be monitored until it is fully decommissioned and it is established there is no potential for emissions to the environment. In the event of a decommissioning of this site the infrastructure on site could easily be converted or used for alternative activities.

SECTION L STATUTORY REQUIREMENTS

L. 1 Section 40(4) WMA

Indicate how all the requirements of Section 40(4)[(a) to (i)] of the Waste Management Acts 1996 to 2003 will be met.

Applicants should also describe how the proposed facility will comply with the requirements of BAT. In particular reference should be made to the considerations referred to in Annex IV of Council Directive 96/61/EC concerning integrated pollution prevention and control.

Attachment L.1 should contain the documentation requested above, along any relevant additional information.

Attachment included	yes ☒	no ☐	not applicable ☐

Attachment L.1 Statutory Requirements

Compliance with Emission Standards

Ted O' Donoghue & Sons Ltd will operate the facility so as to comply with all emission standards and limits set out by the Environmental Protection Agency in the Waste Licence. Environmental monitoring is proposed for dust, noise and surface water.

Avoidance of Environmental Pollution

The facility is designed and operated to ensure that the operation of the facility will not cause environmental pollution.

Best Available Technology (BAT)

Ted O' Donoghue & Sons Ltd will employ sites practices and best available technology as appropriate in accordance with BAT principles to avoid any environmental pollution and prevent and mitigate any nuisance emissions from the facility.

Financial Provision

The management are fully aware of their responsibilities to make financial provision in respect to the operation of a waste recovery facility as set out in Section 53 of the Act.

L.2 Fit and Proper Person

The WMA in Section 40(4)(d) specifies that the Agency shall not grant a licence unless it is satisfied that the applicant (if the applicant is not a local authority) is a fit and proper person. Section 40(7) of the WMA specifies the information required to enable a determination to be made by the Agency.

- Indicate whether the applicant or other relevant person has been convicted under the Waste Management Acts 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.

- Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees (Link to Section C.1 of the application).

- Provide information to show that the person is likely to be in a position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which the application

relates or in consequence of ceasing to carry out that activity (Link to Section K of the application).

Supporting information should be included as **Attachment L 2** with reference to where the information can be found in the application.

Attachment included	**yes** ☐	**no** ☐	**not applicable** ☐

Attachment L 2 Fit and Proper Person

No employee of the applicant, Ted O' Donoghue & Sons Ltd., has been convicted of an offence under the Waste Management Act 1996.

Technical Competence & Site Management

The facility management team has extensive of operating licensed facilities and will operate the facility in strict accordance with the Waste Licence. The staff structure and experience / qualifications of key staff members involved in the management and operation of the facility has been included in Attachment C 1.

The company have demonstrated their technical competence and site management through their continued involvement in the waste industry, the quality of their plant technology and processes and the testament of their clients whom they have served over the years.

The management team is composed of experienced personnel who have spent many years in this sector of the waste industry. The facilities manager will be responsible for all environmental aspects of the operation and in particular compliance with the waste license. The facilities manager and/or the environmental technician will complete the FAS course for waste facility management.

The company have operated their facility in full compliance with the existing waste licence W0147-01.

In light of these facts, the applicant is deemed a fit and proper person to hold a licence. Financial commitments will be required to cover development, operation, aftercare management and restoration of the site. Ted O' Donoghue & Sons Ltd is in a good financial position and with the projected operating revenues and bank loans will be able to finance these elements.

SECTION M DECLARATION

Declaration

I hereby make application for a licence / revised licence, pursuant to the provisions of the Waste Management Acts 1996 to 2003 and Regulations made hereunder.

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website. This consent relates to this application itself and to any further information, submission, objection, or submission to an objection whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Signed by : _____ **Date :** 26-9-08
(on behalf of the organisation)

Print signature name: Martin O Donoghue

Position in organisation : Director

Company stamp or seal:

ANNEX 1 STANDARD FORMS

Standard forms are provided in this section for the recording and presentation of environmental monitoring and site investigation results

TABLE E.1(i) LANDFILL GAS FLARE EMISSIONS TO ATMOSPHERE
Emission Point:

Emission Point Ref. Nº:	
Location :	
Grid Ref. (12 digit, 6E,6N):	
Vent Details Diameter: Height above Ground(m):	
Date of commencement of emission:	

Characteristics of Emission :

CO		mg/m^3
Total organic carbon (TOC)		mg/m^3
NOx		mg/Nm^3 0^oC. 3% O_2(Liquid or Gas), 6% O_2(Solid Fuel)
Maximum volume of emission		m^3/hr
Temperature	^oC(max) ^oC(min)	^oC(avg)

(i) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE (1 Page for each emission point)

Emission Point Ref. Nº:	
Source of Emission:	
Location :	
Grid Ref. (12 digit, 6E,6N):	
Vent Details Diameter: Height above Ground(m):	
Date of commencement:	

Characteristics of Emission :

(i) Volume to be emitted:			
Average/day	m^3/d	Maximum/day	m^3/d
Maximum rate/hour	m^3/h	Min efflux velocity	$m.sec^{-1}$
(ii) Other factors			
Temperature	^oC(max)	^oC(min)	^oC(avg)
For Combustion Sources: Volume terms expressed as : ☐ wet. ☐ dry. _____$\%O_2$			

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

TABLE E.1(iii): MAIN EMISSIONS TO ATMOSPHERE - Chemical characteristics of the emission (1 table per emission point)

Emission Point Reference Number: _____

Parameter	Prior to treatment[1]				Brief description of treatment	As discharged[1]					
	mg/Nm^3		kg/h			mg/Nm^3		kg/h.		kg/year	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max

1. Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0^{o}C,101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless clearly stated otherwise.

TABLE E.1(iv): EMISSIONS TO ATMOSPHERE - Minor /Fugitive

Emission point Reference Numbers	Description	Emission details[1]				Abatement system employed
		material	mg/Nm$^{3(2)}$	kg/h.	kg/year	
D1-D4	Dust emissions from loading and unloading operations.	Dust				Waste handling activities limited to main building.
OD1-OD2	Odours from storage of biodegradable waste.	Odour				Storage of waste limited to main waste building. All putrescible/biodegradable waste to be removed off site within 48 hours.

1 The maximum emission should be stated for each material emitted, the concentration should be based on the maximum 30 minute mean.
2 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0^{o}C101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

TABLE E.2(i): EMISSIONS TO SURFACE WATERS
(One page for each emission)

Emission Point:

Emission Point Ref. Nº:	SW1
Source of Emission:	Run-off from yard/Outlet from oil interceptor
Location :	South east corner of site
Grid Ref. (10 digit, 5E,5N):	E158859 N65293
Name of receiving waters:	Curraheen River
Flow rate in receiving waters:	_____ $m^3.sec^{-1}$ Dry Weather Flow _____ $m^3.sec^{-1}$ 95%ile flow
Available waste assimilative capacity:	kg/day

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	m^3

Maximum rate/hour	m^3		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

TABLE E.2(ii): EMISSIONS TO SURFACE WATERS - Characteristics of the emission (1 table per emission point)

Emission point reference number: SW1

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	
BOD					38				
Mineral oils					<10				
Ammoniacal nitrogen					2.6				
Conductivity (µS/cm)					943				

TABLE E.3(i): EMISSIONS TO SEWER(One page for each emission)

Emission Point: NO EMISSIONS TO SEWER

Emission Point Ref. N^{o}:	
Location of connection to sewer :	
Grid Ref. (10 digit, 5E,5N):	
Name of sewage undertaker:	

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

TABLE E.3(ii): EMISSIONS TO SEWER - Characteristics of the emission (1 table per emission point)

Emission point reference number : _____

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	

There are no emissions to sewer from the facility.

TABLE E.4(i): EMISSIONS TO GROUNDWATER (1 Page for each emission point)

Emission Point or Area:

Emission Point/Area Ref. Nº:	
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	Percolation area
Location :	
Grid Ref. (10 digit, 5E,5N):	
Elevation of discharge: (relative to Ordnance Datum)	
Aquifer classification for receiving groundwater body:	
Groundwater vulnerability assessment (including vulnerability rating):	
Identity and proximity of groundwater sources at risk (wells, springs, etc):	GW1- 50m west
Identity and proximity of surface water bodies at risk:	Curraheen River 300m south

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

There are no emissions to groundwater from the facility.

Table E.5(i): NOISE EMISSIONS - Noise sources summary sheet

Source	Emission point Ref. No	Equipment Ref. No	Sound Pressure[1] dBA at reference distance	Octave bands (Hz) Sound Pressure[1] Levels dB(unweighted) per band									Impulsive or tonal qualities	Periods of Emission
				31.5	63	125	250	500	1K	2K	4K	8K		
Mechanical Grab in building	S1	--	93	79	86	77	75	76	76	74	68	57		
Forklift	S2	--	80	53	59	67	71	75	75	73	67	59		
Wood chipper outside	S3	--	87	85	84	80	80	77	78	71	64	92		Twice per week for 2 hours

1. For items of plant sound power levels may be used.

TABLE F.1: ABATEMENT / TREATMENT CONTROL

***Emission point reference number** : SW1*

Control[1] parameter	Equipment [2]	Equipment maintenance	Equipment calibration	Equipment back-up
	Oil interceptor prior to discharge point	Emptying and cleaning		

Control[1] parameter	Monitoring to be carried out[3]	Monitoring equipment	Monitoring equipment calibration

[1] List the operating parameters of the treatment / abatement system which control its function.
[2] List the equipment necessary for the proper function of the abatement / treatment system.
[3] List the monitoring of the control parameter to be carried out.

TABLE F.2 to F.8 : EMISSIONS MONITORING AND SAMPLING POINTS - (1 table per media)

Emission Point Reference No(s). : Noise, Dust, Groundwater, Surface water

Parameter	Monitoring frequency	Accessibility of Sampling Points
Noise	Annual	Good
Dust	Bi-annual (twice May-September)	Good
Groundwater	Monthly	Good
Surface water	Monthly	Good

TABLE Ff: Fugitive ENVIRONMENT MONITORING AND SAMPLING LOCATIONS (1 table per media)

Monitoring Point Reference No :_____

Parameter	Monitoring frequency	Accessibility of Sampling point

Table G.1 Details of Process related Raw Materials, Intermediates, Products, etc., used or generated on the site

Ref. Nº or Code	Material/ Substance[1]	CAS Number	Danger[2] Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R[3] - Phrase	S[3] - Phrase
GD1	Green Diesel	68476-30-2	Flammable	4.5	11	On site generators, waste handling equipment	R40 R65	S2 S24
GD2	White diesel Hydraulic oil	68334-30-5	Flammable	22.7	125,000	Waste collection vehicles	R40 R65	S36/37 S43 S62
H Oil	Hydraulic oil	Not found	None	0.400	1.200	To power hydraulic rams for waste handling equipment	Not found R40	Not found S24
Grs	Grease	Not found	None	0.045	0.136	Lubricating mechanical equipment	Not found	Not found
GO1	Gear oil	Not found	None	0.045	0.136	Waste collection and waste handling equipment	Not found	Not found
RP1	Rat poison	Not found	Not found	0.0005	0.0005	Vermin control	Not found	Not found
Pt1	Paint	64742-95-6	Flammable	0.045	0.045	Painting	R10 R36/37/38	S29 S16 S23 S36/37/39

Notes: 1. In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance.
2. c.f. Article 2(2) of SI Nº 77/94

TABLE H.1(i): WASTE - Hazardous Waste Recovery/Disposal

Waste material	EWC Code	Main source[1]	Quantity		On-site recovery/disposal[2] (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m^3 / month			

[1] A reference should be made to the main activity / process for each waste.

TABLE H.1(ii) WASTE - Other Waste Recovery/Disposal

Waste Material	EWC Code	Main source[1]	Quantity		On-site Recovery/Disposal (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / Year	m^3 / month			
Mixed Municipal Waste	20 03 01	Mixed MSW					
Mixed Municipal Waste	20 03 01	Mixed MSW	1,571			Mulleadys Ltd Co Longford	
Scrap Metal	19 12 03	Scrap Metal	429		Cork Metal Dublin Hill		
Hard Plastics	19 12 04	Plastic	7		Bernard O Brien Waterfall		
Dry Recyclables	19 12 01	Cardboard	30		Cork Recycling		
Dry Recyclables	19 12 01	Plastic	2		Cork Recycling		
Scrap Metal	19 12 03	Metal	135		National Recycling		
Dry Recyclables	19 12 01	Cardboard	100		Glyntown Recycling, Glanmire		
Dry Recyclables	19 12 04	Plastic	25		Glyntown Recycling, Glanmire		
Dry Recyclables	19 12 04	Paper	32		Glyntown Recycling, Glanmire		
Soil&Stone	17 05 04	Soil & Stone	268		Con Cronin		
Soil&Stone	17 05 04	Soil & Stone	7,661		Tom Hicky Aherla		
Timber&Greens	17 05 04	Timber	214		CTO Kinsale Rd		
Commercial	15 01 06	Commercial	178		Cork Mini Skips		
		Wood Chip	888		Grangers		
	17 05 04	Soil & Stone	1,816		Jeremy Lynch		
Plasterboard	17 05 04	Plasterboard	669		Gypsum Recycling Ire		
Glass	19 12 05	Glass Packaging	208		Jackie Whelan Quarries Tullagower Co Clare		
Scrap Metal	20 03 01	Mixed MSW	9,374				Youghal Landfill
Pipes Ect	17 05	Hard Plastic	7		Clearpoint		
Green Waste	20 02 01	Greens	290		Cto Kinsale Rd		
			62		Finsa Forrest Products		
Timber	17 05 04	Timber	8		Ashgrove Recycling		

Waste material	EWC Code	Main source[1]	Quantity Tonnes/Year	On-site Recovery/ Disposal	Off-site Recovery, reuse or recycling	Off-site Disposal	
Timber	17 05 04	Timber	145		Cork Recycling		
Dry Recyclables	20 03 01	Recyclables	4,077		Re Gen		
Dry Recyclables	19 12 01	Cardboard	146		Veolia		
Dry Recyclables	19 12 01	Paper	18		Veolia		
Soil & Stone	17 05 04	Soil& Stone	60		Kevin McCarthy		
Rubble	17 05 04	Rubble	2,607		John A Wood, Ballygarvan		
			31,027				

Note:The above Table refers to tonnages transferred from the facility in 2007

1 A reference should be made to the main activity/ process for each waste.
2 The method of disposal or recovery should be clearly described and referenced to Attachment H.1

Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: **SW1 - Discharge from Yard after Oil Interceptor**

Parameter	Results (mg/l)				Sampling method[2] (grab, drift etc.)	Normal Analytical Range[2]	Analysis method / technique
	02/04/2008	Date	Date	Date			
pH	--	--	--	--			
Temperature	--	--	--	--			
Electrical conductivity EC	0.943ms/cm	--	--	--			
Ammoniacal nitrogen NH_4-N	2.6mg/l	--	--	--			
Chemical oxygen demand	116mg/l	--	--	--			
Biochemical oxygen demand	--	--	--	--			
Dissolved oxygen DO	--	--	--	--			
Calcium Ca	--	--	--	--			
Cadmium Cd	--	--	--	--			
Chromium Cr	--	--	--	--			
Chloride Cl	--	--	--	--			
Copper Cu	--	--	--	--			
Iron Fe	--	--	--	--			
Lead Pb	--	--	--	--			
Magnesium Mg	--	--	--	--			
Manganese Mn	--	--	--	--			
Mercury Hg	--	--	--	--			

Surface Water Quality (Sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	02/04/2008	Date	Date	Date			
Nickel Ni		--	--	--			
Potassium K	21.9mg/l	--	--	--			
Sodium Na	25.3mg/l	--	--	--			
Sulphate SO_4	377mg/l	--	--	--			
Zinc Zn	--	--	--	--			
Total alkalinity (as $CaCO_3$)	--	--	--	--			
Total organic carbon TOC	--	--	--	--			
Total oxidised nitrogen TON	--	--	--	--			
Nitrite NO_2	<0.05mg/l	--	--	--			
Nitrate NO_3	<0.03mg/l	--	--	--			
Faecal coliforms (/100mls)		--	--	--			
Total coliforms (/100mls)		--	--	--			
Phosphate PO_4		--	--	--			

Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: **SW2 Receiving Water Upstream on Curraheen River**

Parameter	**Results (mg/l)**				**Sampling method[2] (grab, drift etc.)**	**Normal Analytical Range[2]**	**Analysis method / technique**
	02/04/2008	**Date**	**Date**	**Date**			
pH	7.38	--	--	--	Grab	6-8	
Temperature		--	--	--	Grab		
Electrical conductivity EC	0.205	--	--	--	Grab		
Ammoniacal nitrogen NH_4-N	<0.2	--	--	--	Grab		
Chemical oxygen demand	<15	--	--	--	Grab		
Biochemical oxygen demand	<2	--	--	--	Grab		
Dissolved oxygen DO		--	--	--	Grab		
Calcium Ca	23750	--	--	--	Grab		
Cadmium Cd	<0.04µg/ml	--	--	--	Grab		
Chromium Cr	<1µg/l	--	--	--	Grab		
Chloride Cl	16mg/l	--	--	--	Grab		
Copper Cu	1µg/l	--	--	--	Grab		
Iron Fe	<2µg/l	--	--	--	Grab		
Lead Pb	<1µg/l	--	--	--	Grab		
Magnesium Mg	4930µg/l	--	--	--	Grab		
Manganese Mn	<1µg/l	--	--	--	Grab		
Mercury Hg	<0.05µg/l	--	--	--	Grab		

Surface Water Quality (Sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	02/04/2008	Date	Date	Date			
Nickel Ni	7µg/l	--	--	--	Grab		
Potassium K	<0.2mg/l	--	--	--	Grab		
Sodium Na	10.4mg/l	--	--	--	Grab		
Sulphate SO_4	<1µg/l	--	--	--	Grab		
Zinc Zn	<1µg/l	--	--	--	Grab		
Total alkalinity (as $CaCO_3$)	90	--	--	--	Grab		
Total organic carbon TOC	3	--	--	--	Grab		
Total oxidised nitrogen TON	--	--	--	--	Grab		
Nitrite NO_2	<0.05mg/l	--	--	--	Grab		
Nitrate NO_3	7mg/l	--	--	--	Grab		
Faecal coliforms (/100mls)		--	--	--	Grab		
Total coliforms (/100mls)		--	--	--	Grab		
Phosphate PO_4		--	--	--	Grab		

Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: **SW3 Receiving Water Downstream on Curraheen River**

Parameter	**Results (mg/l)**				**Sampling method[2] (grab, drift etc.)**	**Normal Analytical Range[2]**	**Analysis method / technique**
	02/04/2008	**Date**	**Date**	**Date**			
pH	7.04	--	--	--	Grab	6-8	
Temperature		--	--	--	Grab		
Electrical conductivity EC	0.244	--	--	--	Grab		
Ammoniacal nitrogen NH_4-N	<0.2	--	--	--	Grab		
Chemical oxygen demand	<15	--	--	--	Grab		
Biochemical oxygen demand	<2	--	--	--	Grab		
Dissolved oxygen DO		--	--	--	Grab		
Calcium Ca	25710	--	--	--	Grab		
Cadmium Cd	<0.04µg/ml	--	--	--	Grab		
Chromium Cr	<1µg/l	--	--	--	Grab		
Chloride Cl	18mg/l	--	--	--	Grab		
Copper Cu	<1µg/l	--	--	--	Grab		
Iron Fe	<2µg/l	--	--	--	Grab		
Lead Pb	<1µg/l	--	--	--	Grab		
Magnesium Mg	5811µg/l	--	--	--	Grab		
Manganese Mn	<1µg/l	--	--	--	Grab		
Mercury Hg	<0.05µg/l	--	--	--	Grab		

Surface Water Quality (Sheet 2 of 2) SW3 Receiving Water Downstream on Curraheen River

Parameter	Results (mg/l)				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	02/04/2008	Date	Date	Date			
Nickel Ni	7µg/l	--	--	--	Grab		
Potassium K	2.6mg/l	--	--	--	Grab		
Sodium Na	13.6mg/l	--	--	--	Grab		
Sulphate SO_4	16mg/l	--	--	--	Grab		
Zinc Zn	<1µg/l	--	--	--	Grab		
Total alkalinity (as $CaCO_3$)	50	--	--	--	Grab		
Total organic carbon TOC	3	--	--	--	Grab		
Total oxidised nitrogen TON	--	--	--	--	Grab		
Nitrite NO_2	<0.05mg/l	--	--	--	Grab		
Nitrate NO_3	27.7mg/l	--	--	--	Grab		
Faecal coliforms (/100mls)		--	--	--	Grab		
Total coliforms (/100mls)		--	--	--	Grab		
Phosphate PO_4		--	--	--	Grab		

Table I.4(i) GROUNDWATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: **GW1 Site Well**

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	02/04/2008	Date	Date	Date			
pH	5.72	--	--	--	Dipper		
Temperature		--	--	--	Dipper		
Electrical conductivity EC	0.149mS/cm	--	--	--	Dipper		
Ammoniacal nitrogen NH_4-N	<0.2	--	--	--	Dipper		
Dissolved oxygen DO	--	--	--	--	Dipper		
Residue on evaporation (180^{o}C)	--	--	--	--	Dipper		
Calcium Ca	4914mg/l	--	--	--	Dipper		
Cadmium Cd	<0.04µg/l	--	--	--	Dipper		
Chromium Cr	<1 µg/l	--	--	--	Dipper		
Chloride Cl	15 µg/l	--	--	--	Dipper		
Copper Cu	19 µg/l	--	--	--	Dipper		
Cyanide Cn, total	<0.05 µg/l	--	--	--	Dipper		
Iron Fe	52µg/l	--	--	--	Dipper		
Lead Pb	2µg/l	--	--	--	Dipper		
Magnesium Mg	5235µg/l	--	--	--	Dipper		
Manganese Mn	11µg/l	--	--	--	Dipper		
Mercury Hg	<0.05µg/l	--	--	--	Dipper		
Nickel Ni	13µg/l	--	--	--	Dipper		
Potassium K	0.8mg/l	--	--	--	Dipper		
Sodium Na	14.8mg/l	--	--	--	Dipper		

GROUNDWATER QUALITY (SHEET 2 OF 2) GW1 Site Well

Parameter	Results (mg/l)				Sampling method (composite, dipper etc.)	Normal Analytical Range	Analysis method / technique
	02/04/2008	Date	Date	Date			
Phosphate PO_4	0.09mg/l	--	--	--	Dipper		
Sulphate SO_4	7 mg/l	--	--	--	Dipper		
Zinc Zn	--	--	--	--	Dipper		
Total alkalinity (as $CaCO_3$)	40 mg/l	--	--	--	Dipper		
Total organic carbon TOC	<2 mg/l	--	--	--	Dipper		
Total oxidised nitrogen TON		--	--	--	Dipper		
Arsenic As	<1µg/l	--	--	--	Dipper		
Barium Ba	2µg/l	--	--	--	Dipper		
Boron B	<3µg/l	--	--	--	Dipper		
Fluoride F	--	--	--	--	Dipper		
Phenol	--	--	--	--	Dipper		
Phosphorus P	65µg/l	--	--	--	Dipper		
Selenium Se	<1µg/l	--	--	--	Dipper		
Silver Ag	<2µg/l	--	--	--	Dipper		
Nitrite NO_2	29.0 mg/l	--	--	--	Dipper		
Nitrate NO_3	<0.05mg/l	--	--	--	Dipper		
Faecal coliforms (/100mls)		--	--	--	Dipper		
Total coliforms (/100mls)		--	--	--	Dipper		
Water level (m OD)		--	--	--	Dipper		

Table I.4(i) GROUNDWATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: **GW2 Residence adjacent to Site**

Parameter	**Results (mg/l)**				**Sampling method (composite etc.)**	**Normal Analytical Range**	**Analysis method / technique**
	02/04/2008	**Date**	**Date**	**Date**			
pH	6.10	--	--	--	Dipper		
Temperature	--	--	--	--	Dipper		
Electrical conductivity EC	0.284mS/cm	--	--	--	Dipper		
Ammoniacal nitrogen NH_4-N	<0.2	--	--	--	Dipper		
Dissolved oxygen DO	--	--	--	--	Dipper		
Residue on evaporation (180^{o}C)	--	--	--	--	Dipper		
Calcium Ca	18990mg/l	--	--	--	Dipper		
Cadmium Cd	<0.04µg/l	--	--	--	Dipper		
Chromium Cr	1 µg/l	--	--	--	Dipper		
Chloride Cl	23 µg/l	--	--	--	Dipper		
Copper Cu	11 µg/l	--	--	--	Dipper		
Cyanide Cn, total	<0.05 µg/l	--	--	--	Dipper		
Iron Fe	<2µg/l	--	--	--	Dipper		
Lead Pb	7µg/l	--	--	--	Dipper		
Magnesium Mg	10410µg/l	--	--	--	Dipper		
Manganese Mn	81µg/l	--	--	--	Dipper		
Mercury Hg	<0.05µg/l	--	--	--	Dipper		
Nickel Ni	15µg/l	--	--	--	Dipper		
Potassium K	0.6mg/l	--	--	--	Dipper		
Sodium Na	11.1mg/l	--	--	--	Dipper		

GROUNDWATER QUALITY (SHEET 2 OF 2) GW2 Residence adjacent to Site

Parameter	Results (mg/l)				Sampling method (composite, dipper etc.)	Normal Analytical Range	Analysis method / technique
	02/04/2008	Date	Date	Date			
Phosphate PO_4	<0.33mg/l	--	--	--	Dipper		
Sulphate SO_4	11 mg/l	--	--	--	Dipper		
Zinc Zn	--	--	--	--	Dipper		
Total alkalinity (as $CaCO_3$)	40 mg/l	--	--	--	Dipper		
Total organic carbon TOC	<2 mg/l	--	--	--	Dipper		
Total oxidised nitrogen TON	20 mg/l	--	--	--	Dipper		
Arsenic As	<1µg/l	--	--	--	Dipper		
Barium Ba	2µg/l	--	--	--	Dipper		
Boron B	<3µg/l	--	--	--	Dipper		
Fluoride F	--	--	--	--	Dipper		
Phenol	--	--	--	--	Dipper		
Phosphorus P	13µg/l	--	--	--	Dipper		
Selenium Se	<1µg/l	--	--	--	Dipper		
Silver Ag	<2µg/l	--	--	--	Dipper		
Nitrite NO_2	86.9 mg/l	--	--	--	Dipper		
Nitrate NO_3	<0.05mg/l	--	--	--	Dipper		
Faecal coliforms (/100mls)		--	--	--	Dipper		
Total coliforms (/100mls)		--	--	--	Dipper		
Water level (m OD)		--	--	--	Dipper		

Table I.6(i) Ambient Noise Assessment

Third Octave analysis for noise emissions should be used to determine tonal noises

	National Grid Reference	Sound Pressure Levels		
	(5N, 5E)	$L(A)_{eq}$	$L(A)_{10}$	$L(A)_{90}$
1. SITE BOUNDARY				
Location 1: N2	E58712 N65354	55.2	40.4	59.8
Location 2: N3	E58766 N65368	62.7	64.0	50.0
Location 3:	--	--	--	--
Location 4:	--	--	--	--
2. NOISE SENSITIVE LOCATIONS				
Location 1: N1	E58608 N65206	57.7	51.4	41.4
Location 2: N4	E58633 N65354	61.9	51.6	45.4
Location 3: N5	E58637 N65539	66.4	65.2	46.0
Location 4:	--			

NOTE: All locations should be identified on accompanying drawings.