Waste Licence 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.

Environmental Protection Agency
P.O.Box 5000, Johnstown Castle Estate, County Wexford
Telephone: 053-60600 Fax: 053-60699

INTRODUCTION

A valid application must contain the information prescribed in the Waste Management (Licensing) Regulations 2004 (SI No. 395 of 2004). The application should conform to the format set out in this application form and the relevant *Guidance Note*. Each page of the completed application form must be numbered, e.g. **page 5 of 45**, etc. **Wherever possible, information should be supplied in the spaces given in the application form. Additional information can be included in clearly identifiable, numbered attachments, which should be cross-referenced with the relevant sections in the application form**. *A contents list should be included with each volume.* The applicant should refer to the *Guidance Note* in order to ensure that the application includes all the information required. Consistent measurement units must be used throughout.

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 X**	**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 X**	**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	B.4	
CHECKED	**Applicant X**	**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 X**	**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.6	
CHECKED	**Applicant X**	**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 X**	**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 X**	**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	
CHECKED	**Applicant X**	**Official** ☐

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

LOCATION	D.1, F.1	
CHECKED	**Applicant X**	**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	A.11	
CHECKED	**Applicant X**	**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 X**	**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	E, I	
CHECKED	**Applicant X**	**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 X**	**Official** ☐

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

LOCATION	A.15	
CHECKED	**Applicant X**	**Official** ☐

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

LOCATION	A.16	
CHECKED	**Applicant X**	**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	E	
CHECKED	**Applicant X**	**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	
CHECKED	**Applicant X**	**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 X**	**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 X**	**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	A.19	
CHECKED	**Applicant X**	**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	A.20	
CHECKED	**Applicant X**	**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	
CHECKED	**Applicant X**	**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 or newspapers in which the notice in accordance with article 6 has been published,

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

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

LOCATION	NOT APPLICABLE	
CHECKED	**Applicant X**	**Official** ☐

(d) a copy of such plans, 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.6	
CHECKED	**Applicant X**	**Official** ☐

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

LOCATION	E	
CHECKED	**Applicant X**	**Official** ☐

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

LOCATION	F	
CHECKED	**Applicant X**	**Official** ☐

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

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

Article 12(5)(a) An application by a local authority in respect of the carrying on of an activity at a facility within the functional area of the authority shall be accompanied by 2 copies of the application and of all accompanying documents and particulars as required under sub-article (4).

PROVIDED Y/N	Y	
CHECKED	**Applicant X**	**Official** ☐

Article 12(5)(b) An application other than one to which paragraph (a) refers shall be accompanied by 3 copies of the application or such other number of copies as the Agency shall determine and of all accompanying documents and particulars as required under sub-article (4).

PROVIDED Y/N	N	
CHECKED	**Applicant X**	**Official** ☐

Article 12(5)(c) For the purposes of paragraphs (a) and (b), all or part of the necessary copies of the said application and associated documents and particulars may, with the agreement of the Agency, be submitted in a computer or other non-legible format specified by the Agency.

CD version as PDF files PROVIDED? Y/N	Y	
CHECKED	**Applicant X**	**Official** ☐

Article 13 Where a development requires an Environmental Impact Assessment to be carried out, 3 copies of the environmental impact statement plus 11 copies on CD should accompany this application.

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

Article 13 (6) Notwithstanding the requirements of sub-articles (1) and (2), all or part of 3 copies of the environmental impact statement may, with the agreement of the Agency, be submitted in a computer or other non-legible format specified by the Agency.

CD version PROVIDED? Y/N	NOT APPLICABLE	
CHECKED	**Applicant X**	**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. The abbreviation "N/A" should not be used.**

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 up 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. Provide legends on all drawings and maps as appropriate.*

Applicants must submit a signed original of the completed application, plus three copies (two copies where the application is by a local authority in respect of the carrying on of an activity located within the functional area of the authority)[1]. In cases where an Environmental Impact Statement (EIS) is required then the Agency must be supplied with three copies of the EIS. In addition the applicant must submit one copy of the complete application on a CD-ROM, and eleven CD-ROM copies of the EIS to the Agency. The e-files should be saved as a 'pdf' file, read only status.

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

[1] Article 12(5) of the Regulations

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**.

SECTION B GENERAL

B.1 Applicant's Details

Name*:	South Dublin County Council
Address:	Environmental Services Dept.
	County Hall
	Town Centre, Tallaght
	Dublin 24
Tel:	01 4149000
Fax:	01 4149101
e-mail:	Not applicable

* This should be the name of the applicant which is current on the date this Waste Licence Application is lodged with the Agency. It should be the name of the legal entity (which can be a limited company or a sole trader). A trading/business name is not acceptable.

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:	Mr Dermot Finch
Address:	As above
Tel:	As above
Fax:	As above
e-mail:	dfinch@SDUBLINCOCO.ie

Address of registered or principal office of Body Corporate (if applicable)

Address:	Not applicable
Tel:	
Fax:	
e-mail:	

If the applicant is a body corporate, the following information must be attached as **Attachment B1**:

a) a Certified Copy of the Certificate of Incorporation or Memorandum and Article of Association;
b) the Company's Registration Number from the Companies Registry Office; and
c) a list of the Company Directors.

State the interest of the applicant in the land which is subject to the application. The applicant is (please check):

Landowner	X
Lessee	
Prospective Purchaser	
Other (please specify)	

Name and address of all occupiers of the land on which the Activity is situated (if different from applicant named above).

Name: Not applicable
Address:

Tel:
Fax:
e-mail:

Name and address of the current* owner(s) and lessees of the land, buildings and ancillary plant on which the activity is or will be situated (if different from applicant named above).
***A drawing showing the above details should be included in* Attachment B1.**

Name: Not applicable
Address:

Tel:
Fax:
e-mail:
*Current at the time the application is submitted

B.2 Location of Activity

Name:	Green Waste Facility
Address*:	Esker Lane
	Lucan
	Co. Dublin
Tel:	01 6283407
Fax:	01 6283408
e-mail:	Not applicable

* Include any townland

National Grid Reference (8 digit 4E,4N)	304100 E 234506 N

Location maps with grid references should be enclosed in **Attachment B.2.** The site boundary must be outlined on the map in colour.

Original maps of the relevant area, such as maps from the Ordnance Discovery Series, from which the site grid reference can be read and confirmed, must be included in **Attachment B.2.**

B.3 Planning Authority

Give the name of the planning authority in whose functional area the activity is or will be carried out.

Name:	South Dublin County Council
Address:	County Hall
	Town Centre, Tallaght
	Dublin 24
Tel:	01 4149000
Fax:	01 4149101

Has the Planning Authority 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 Authority notified	**Yes**
	No X

Planning Permission relating to this application:

has been obtained	X
is being processed	
is not yet applied for	
is not required	

Local Authority Planning File Reference Nº:	C/158/98

Attachment B.3 should contain ***the most recent*** planning permission, including a copy of ***all*** conditions, and the required copies of any EIS should also be enclosed. For existing activities, **Attachment B.3** should also contain copies of of the most recent waste licence and any permits in force at the time of submission. Where planning permission is not required for the development, provide reasons, relevant correspondence, *etc.*

B.4 Sanitary Authority

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 or other body, give the name of the sanitary authority in which the sewer is vested or by which it is controlled and the waste water treatment plant (if any) to which the sewer discharges.

Name:	Not applicable
Address:	
Tel:	
Fax:	

The applicant must enclose, as **Attachment B.4,** a copy of any effluent discharge licence and/or agreement between the applicant and the body with responsibility for the sewer.

B.5 Other Authorities

The applicant should tick the appropriate box below to identify whether the activity is located within the Shannon Free Airport Development Company (SFADCo.) area.

Within SFADCo. Area	**Yes**	**No X**

The applicant should indicate the **Health Board Region** where the activity is or will be located.

Name:	Health Service Executive: Eastern Region, East Coast Area
Address:	Eastern Regional Health Authority
	Mill Lane, Palmerstown
	Dublin 20
Tel:	01 620 1600
Fax:	01 620 1601

B.6 Notices and Advertisements

Articles 6 and 7 of the Waste Management (Licensing) Regulations 2004 requires all applicants to advertise the application in a newspaper and by way of a site notice. See *Guidance Note.*

Attachment B.6 should contain a copy of the site notice and a drawing showing its location on site. **The original application must include the complete newspaper in which the advertisement was placed**. The relevant page of the newspaper containing the advertisement should be included with the original and three copies of the application.

B.7 Type of Waste Activity, Tonnages & Fees

B.7.1 Specify the class or classes of activity in Table B.7.1, in accordance with the Third Schedule or Fourth Schedule to the Waste Management Acts 1996 to 2003, to which the application relates (check the relevant box(es) and mark the principal activity with a 'P').

Attachment B.7 should identify the principle activity and include a brief technical description of each of the other activities specified. **There can only be one principal activity.**

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).	N	1. Solvent reclamation or regeneration.	N
2. Land treatment, including biodegradation of liquid or sludge discards in soils.	N	2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).	N
3. Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.	N	3. Recycling or reclamation of metals and metal compounds.	N
4. Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.	N	4. Recycling or reclamation of other inorganic materials.	N
5. Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.	N	5. Regeneration of acids or bases.	N
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.	N	6. Recovery of components used for pollution abatement.	N
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).	N	7. Recovery of components from catalysts.	N
8. Incineration on land or at sea.	N	8. Oil re-refining or other re-uses of oil.	N
9. Permanent storage, including emplacement of containers in a mine.	N	9. Use of any waste principally as a fuel or other means to generate energy.	N
10. Release of waste into a water body (including a seabed insertion).	N	10. The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system.	N
11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.	N	11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.	N
12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.	N	12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.	N
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.	N	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.	P

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)	20,000
Year	2006

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)	0
Recovery of Waste (4)	10,000
TOTAL	€ 10,000

TABLE B.7.4 (FOR A LANDFILL APPLICATION)

STATE WHICH OF THE FOLLOWING IS RELEVANT TO THE CURRENT APPLICATION.

NOT APPLICABLE

(a) landfill for hazardous waste	☐
(b) landfill for non-hazardous waste	☐
(c) landfill for inert waste	☐

B.8 SEVESO II DIRECTIVE

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.

Regulations Apply	Yes	No X

If yes, **Attachment B.8** should include the relevant details**.** Supporting information, as well as copies of any Hazardous Operation Studies (HAZOP) carried out for the site, should also be included in the attachment.

SECTION C MANAGEMENT OF THE FACILITY

Advice on completing this section is provided in the *Guidance Note*.

C.1 Technical Competence and Site Management

This information should form **Attachment C 1**.

Details of the applicant's experience and qualifications, along with that of other relevant employees, should be summarised as shown below. Statements of duties, responsibilities, experience and qualifications should be submitted for each position named below. Additional information, including the management structure and an organisational chart, should be included in **Attachment C 1.**

Name	Position	Duties and Responsibilities	Experience /Qualifications
Niall Harrington	Site Supervisor	▫ Site Supervisor ▫ Staff management ▫ Liaison with public ▫ Green waste acceptance ▫ Record-keeping and accounts ▫ Liaison with South Dublin County Council	Niall Harrington is a qualified horticulturist and has been in this position for 4 years. Niall attends all CRE (composting association) events.
Nicholas O'Connell	General Operative	▫ Operation of tractor and teleporter ▫ Site office duties	4 years' site experience
Patrick McGrath	General Operative	▫ Operation of tractor and teleporter ▫ Site office duties	2 years' site experience

C.2 Environmental Management System

Attachment C 2 should contain the Environmental Management System (EMS) details required.

C.3 Hours of Operation

Attachment C 3 should contain details of hours of operation for the waste facility, civic waste facilities and other facilities.

(a) Proposed hours of operation.
(b) Proposed hours of waste acceptance/handling.
(c) Proposed hours of any construction and development works at the facility and timeframes (required for landfill facilities).
(d) Any other relevant hours of operation expected.

C.4 Conditioning Plan

Address as **Attachment C 4,** in the case of a LANDFILL Application, and only for the review of a Landfill Waste Licence.

NOT APPLICABLE.

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	
D.1.b	**Designs for site roads**	Y	
D.1.c	**Design of hardstanding areas**	Y	
D.1.d	**Plant**	Y	
D.1.e	**Wheel-wash**	N	
D.1.f	**Laboratory facilities**	N	
D.1.g	**Design and location of fuel storage areas**	Y	
D.1.h	**Waste quarantine areas**	Y	
D.1.i	**Waste inspection areas**	Y	
D.1.j	**Traffic control**	Y	
D.1.k	**Sewerage and surface water drainage infrastructure**	Y	
D.1.l	**All other services**	Y	
D.1.m	**Plant sheds, garages and equipment compound**	Y	
D.1.n	**Site accommodation**	Y	
D.1.o	**A fire control system, including water supply**	Y	
D.1.p	**Civic amenity facilities**	N	
D.1.q	**Any other waste recovery infrastructure**	N	
D.1.r	**Composting infrastructure**	N	
D.1.s	**Construction and Demolition waste infrastructure**	N	
D.1.t	**Incineration infrastructure (if applicable).** **Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive**	N	
D.1.u	**Any other infrastructure**	Y	

D.2 Facility Operation

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

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

LANDFILLS

NOT APPLICABLE

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.

D.3 Liner System

Complete the following table regarding the liner system to be used for the landfill/landfill extension and detail the information requested as **Attachment D.3**. ***Items D3c to D3g should only be completed for immediate projects only (ie Years 1 & 2).*** A schedule of Liner construction activities for the medium to long term need only be listed in item D3a below, since Condition 3 of any licences granted will provide reporting requirements for any future projects.

TABLE D.3 LINER SYSTEM

		y/n	Comments
D.3.a	**Provide information to fulfil Annex 1 of the Landfill Directive**		
D.3.b	**What type of liner system is specified?**		
D.3.c	**Has a Quality Control Plan been specified?**		
D.3.d	**Has a Quality Assurance Plan been specified?**		
D.3.e	**Have independent, third-party supervision, testing and controls been specified?**		
D.3.f	**Have basal gradients for all cells and access ramps to the cells been designed?**		
D.3.g	**Has a leak detection survey been specified?**		

D.4 Leachate Management

Complete the following table detailing leachate management arrangements. Further information should be included in **Attachment D.4.**

TABLE D.4.1 LEACHATE MANAGEMENT ARRANGEMENTS

		y/n	Comments
D.4.a	**Is there a Leachate Management Plan?**		
D.4.b	**Have annual quantities of leachate been calculated?**		
D.4.c	**Has the total quantity of leachate been calculated?**		
D.4.d	**Have the size of the cells been specified taking account of the water balance calculations?**		
D.4.e	**Has a leachate collection system been specified?**		
D.4.f	**Has a leachate storage system been specified?**		
D.4.g	**Has a system for monitoring the level of leachate in the waste been designed?**		
D.4.h	**Is leachate recirculation proposed/practised?**		
D.4.i	**Has leachate treatment on-site been specified?**		
D.4.j	**Has leachate removal been specified?**		

D 5 Landfill Gas Management

All landfill sites should have suitable arrangements for the management of landfill gas. **Attachment D.5** should contain the appropriate documentation. Information provided should follow the sequence, and use the headings, established in Table D.5. ***Items D5g to D5m should only be completed for immediate or current gas collection projects only (ie Years 1 & 2).*** A schedule of gas management aspects for the medium to long term need only be listed in item D5f below, since Condition 3 of any proposed decision/licence will provide reporting requirements for any future projects.

Table D.5. Landfill Gas Management

		y/n	Comments
D.5a	**Is there a Landfill Gas Management Plan?** **Provide estimates of the volumes of landfill gas which will be produced by the waste disposed of in the site for the next 20 years, and compare to the EPER list for methane:**		
D.5b	**Is there a passive venting system?**		
D.5c	**Does the passive system cover all of the filled area?**		
D.5d	**Have gas alarm systems been installed in the site buildings?**		
D.5e	**Have measures been installed to prevent landfill gas migration (e.g. barriers)?**		
D.5f	**Has a time-scale been proposed for the installation of landfill gas infrastructure?**		
D.5g	**Is gas flaring undertaken at the site?**		
D.5h	**Is there an active (i.e., pumped) landfill gas extraction system?**		
D.5i	**Does the active system cover all of the filled area?**		
D.5j	**Is landfill gas used to generate energy at the site?**		
D.5k	**Have emissions from the flarestack and utilisation plant been assessed for source, composition, quantity and level and rate?**		
D.5l	**Has a maintenance programme for the control system been specified?**		
D.5m	**Has a condensate removal system been designed?**		

D.6 Capping System

Complete the following table detailing the design of the capping system. **Attachment D.6** should contain the appropriate documentation. ***Items D6e to D6k should only be completed for immediate projects only (ie Years 1 & 2).*** Condition 10 of any proposed decision/licence will provide reporting requirements for capping requirements beyond this timeframe.

Table D.6 Capping System

		y/n	Comments
D.6a	**Has the daily cover been specified?**		
D.6b	**Has the intermediate cover been specified?**		
D.6c	**Has the temporary capping been specified?**		
D.6d	**Has the Capping System been designed and does it meet the requirements of the Landfill Directive Annex 1 (3.3)?**		
D.6e	**Does the Capping System include a flexible membrane liner?**		
D.6f	**Have all capping materials been specified?**		
D.6g	**Has a Method Statement for construction been produced?**		
D.6h	**Has a Quality Control Plan been produced?**		
D.6i	**Has a Quality Assurance Plan been produced?**		
D.6j	**Has a programme for monitoring landfill stability been developed?**		
D.6k	**Has a programme for monitoring landfill settlement been developed?**		

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.

E.2 Emissions to Surface Waters

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

E.3 Emissions to Sewer

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

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**

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**

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

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 schematics as appropriate.

For each Emission Point identified complete Table F.1 of the Annex, and include detailed descriptions and schematics of all abatement systems.

Attachment F.1 should contain any supporting information.

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

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

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

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

F.6 Noise

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

F.7 Meteorological Data

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

F.9 Landfill Gas

Complete each of the following tables to show whether information has been included on aspects of landfill gas monitoring. **Attachment F.9** should also contain information to show whether the data given in Tables F.9.(a) and F.9(b) below represents actual or anticipated data. Complete Table F.9 as follows:

Table F.9 (a) Landfill Gas Monitoring for existing landfill gas flares / utilisation plants

Parameter	Concentration (mg/Nm^3)	Proposed Frequency of Analysis	Information Included Y/N	Method of Analysis	Information Included Y/N
Inlet					
Methane (CH_4) % v/v					
Carbon dioxide (CO_2) %v/v					
Oxygen (O_2) % v/v					
Outlet					
Volumetric Flow Rate					
SO_2					
Nox					
CO					
Particulates					
TA Luft Class I, II, III organics					
Hydrochloric acid					
Hydrogen Fluoride					

Table F.9(b) Landfill Gas Monitoring

Parameter	Proposed Frequency of Analysis		Information Included Y/N	Method of Analysis	Information Included Y/N	
	Gas boreholes / vents/ wells/ perimeter locations	Facility Office				
Methane (CH_4) % v/v						
Carbon Dioxide (CO_2) % v/v						
Oxygen (O_2) % v/v						
Atmospheric Pressure						
Temperature						

Table F.9 (c) Landfill Gas Infrastructure

Equipment	Monitoring Frequency	Information Included Y/N	Monitoring Action	Information Included Y/N
Gas Collection System				
Gas Control System				

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

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 X no ☐ not applicable ☐**

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 X no ☐ not applicable ☐**

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		
Class 3			Class 3		
Class 4			Class 4		
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			Class 11		
Class 12			Class 12		
Class 13			Class 13		20,000

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)
2005	20,000	0	20,000
2006	20,000	0	20,000
2007	20,000	0	20,000
2008	20,000	0	20,000

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	1,500 (approx split)	6,500 (approx split)	Unknown
Commercial	3,500 (approx split)	13,500 (approx split)	Unknown
Sewage Sludge			
Construction and Demolition			
Industrial Non-Hazardous Sludges			
Industrial Non-Hazardous Solids			
Hazardous ***(Specify detail in Table H 1.2)**			
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			0
Oil filters			0
Asbestos			0
Paint and Ink			0
Batteries			0
Fluorescent Light Bulbs			0
Contaminated Soils			
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)			
None			0

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.

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.**

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*.

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.

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.

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.**

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.**

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, plans, drawings, 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, maps, diagrams and supporting documents, including details of noise attenuation and noise proposed control measures to be employed, should form **Attachment I.6.**

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 largescale 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*

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 X**	**no** ☐	**not applicable** ☐

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 X**	**no ☐**	**not applicable ☐**

SECTION L STATUTORY REQUIREMENTS

L. 1 Section 40(4) WMA

Indicate how all the requirements of Section 40(4)[(a) to (f)] 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 X**	**no ☐**	**not applicable ☐**

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 X**

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 thereunder.

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

I have no objection to the provision by the Agency or local authority of a copy of the application or parts thereof to any person.

Signed by :_____ **Date :**_____
(on behalf of the organisation)

Print signature name: _____

Position in organisation :_____

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. N^{o}:	**NOT APPLICABLE**
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^{o}C. 3% O_2(Liquid or Gas), 6% O_2(Solid Fuel)
Maximum volume of emission		m^3/hr
Temperature	^{o}C(max) ^{o}C(min)	^{o}C(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. N^{o}:	**NOT APPLICABLE**
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	^{o}C(max)	^{o}C(min)	^{o}C(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: ***NOT APPLICABLE***

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	
A2-1	Potential Dust from Loading/unloading/storage activities		Not known	Not known		Appropriate operational management procedures; Monitoring
A2-1	Potential Odour from Loading/unloading/storage activities		Not known	Not known		Appropriate operational management procedures; Monitoring

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:	NOT APPLICABLE
Source of Emission:	
Location :	
Grid Ref. (10 digit, 5E,5N):	
Name of receiving waters:	
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 : _____

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	

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

Emission Point:

Emission Point Ref. N^{o}:	NOT APPLICABLE
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	

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

Emission Point or Area:

Emission Point/Area Ref. Nº:	NOT APPLICABLE
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	
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):	
Identity and proximity of surface water bodies at risk:	

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

SEE ATTACHMENT I

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		

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

TABLE F.1: ABATEMENT / TREATMENT CONTROL

Emission point reference number *:* *NOT APPLICABLE*

Control[1] parameter	Equipment [2]	Equipment maintenance	Equipment calibration	Equipment back-up

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). : _____

Parameter	Monitoring frequency	Accessibility of Sampling Points

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

Monitoring Point Reference No : AD1

Parameter	Monitoring frequency	Accessibility of Sampling point
Dust	Twice per year	Accessible

Monitoring Point Reference No :_____AD2_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Dust	Twice per year	Accessible

Monitoring Point Reference No :_____AD3_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Dust	Twice per year	Accessible

Monitoring Point Reference No :_____AD4_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Dust	Twice per year	Accessible

Monitoring Point Reference No :_____AO1_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Odour	Weekly	Accessible

Monitoring Point Reference No :_____AO2_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Odour	Weekly	Accessible

Monitoring Point Reference No :_____AO3_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Odour	Weekly	Accessible

Monitoring Point Reference No :_____SW1_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Surface water EPA compliance suite	Annually	Accessible

Monitoring Point Reference No :_____AN1_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Noise	Annually	Accessible

Monitoring Point Reference No :_____AN2_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Noise	Annually	Accessible

Monitoring Point Reference No :_____AN3_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Noise	Annually	Accessible

Monitoring Point Reference No :_____AN4_____

Parameter	Monitoring frequency	Accessibility of Sampling point
Noise	Annually	Accessible

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
	Diesel Rat poison			1,000 litres Unknown	Unknown Unknown	Vehicle fuel		

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
3. c.f. Schedules 2 and 3 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 (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m^3 / month			
NOT APPLICABLE							

[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[2] (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m^3 / month			
NOT APPLICABLE							

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: _____

Parameter	Results (mg/l)				Sampling method[2] (grab, drift etc.)	Normal Analytical Range[2]	Analysis method / technique
	Date	Date	Date	Date			
pH							
Temperature							
Electrical conductivity EC							
Ammoniacal nitrogen NH_4-N							
Chemical oxygen demand							
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
	Date	Date	Date	Date			
Nickel Ni							
Potassium K							
Sodium Na							
Sulphate SO_4							
Zinc Zn							
Total alkalinity (as $CaCO_3$)							
Total organic carbon TOC							
Total oxidised nitrogen TON							
Nitrite NO_2							
Nitrate NO_3							
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Phosphate PO_4							

Table I.4(i) GROUNDWATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: _____

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date			
pH							
Temperature							
Electrical conductivity EC							
Ammoniacal nitrogen NH_4-N							
Dissolved oxygen DO							
Residue on evaporation (180^oC)							
Calcium Ca							
Cadmium Cd							
Chromium Cr							
Chloride Cl							
Copper Cu							
Cyanide Cn, total							
Iron Fe							
Lead Pb							
Magnesium Mg							
Manganese Mn							
Mercury Hg							
Nickel Ni							
Potassium K							
Sodium Na							

GROUNDWATER QUALITY (SHEET 2 OF 2)

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

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:				
Location 2:				
Location 3:				
Location 4:				
2. NOISE SENSITIVE LOCATIONS				
Location 1:				
Location 2:				
Location 3:				
Location 4:				

NOTE: All locations should be identified on accompanying drawings.

208-1

patel tonra ltd.
environmental solutions

For the Attention of
Waste Licensing Section
EPA Headquarters
PO Box 3000
Johnstown Castle Estate
Co. Wexford

ENVIRONMENTAL PROTECTION AGENCY
21 MAR 2006

Our Ref.: SD0102/L03
Direct Dial: 01 802 0523
Direct Fax: 01 802 0525
Mobile: 086 8333724
e-mail: louise.odonnell@pateltonra.com
Date: 20th March 2006

Dear Sir/Madam,

Re: Waste Licence Application for South Dublin Green Waste Facility at Esker Lane, Lucan, Co. Dublin

Please find enclosed:

(a) 1 original + 2 copies of Waste Licence Application Document

(b) 3 full copies of Waste Licence Application Attachments (including original newspaper advertisement page and drawings)

(c) 1 full copy of newspaper containing newspaper advertisement

(d) 1 cheque for €10,000 for Waste Recovery Activity Application

(e) 1 CD-ROM containing pdf files of (a) and (b) above

Yours Sincerely
for Patel Tonra Limited

L O Donnell

Louise O'Donnell
Senior Consultant

Environmental Protection Agency
Waste Licensing
Received 21 MAR 2006
Initials _____

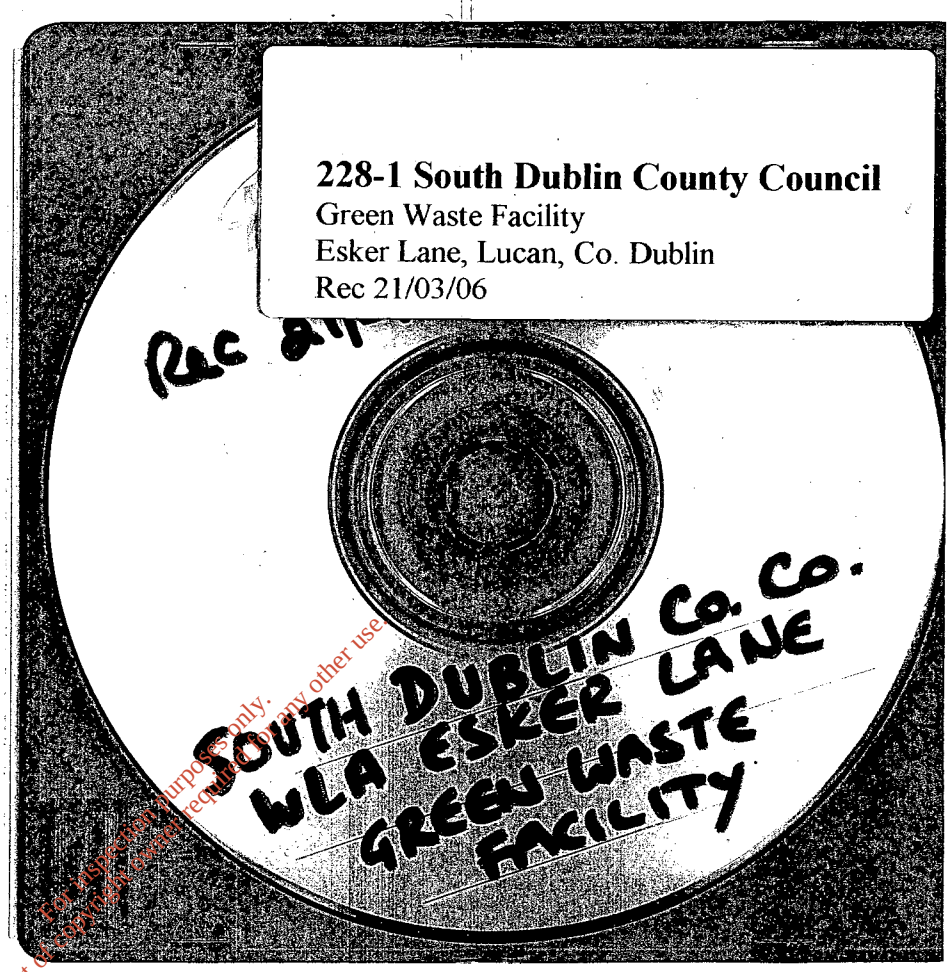
CD Placeholder

This page denotes that a CD entitled (South Dublin County Council, Waste Licence Application, Esker Lane, Green Waste Facility) was submitted as part of this licence application.

The contents of the above CD is available on the Agency's website however, the original CD can be viewed by request at:-

Licensing Unit,
Office of Licencing & Guidance,
EPA,
P.O. Box 3000
Johnstown Castle Estate,
Wexford.
Tel: 053 60600

228-1 South Dublin County Council
Green Waste Facility
Esker Lane, Lucan, Co. Dublin
Rec 21/03/06



Waste Licence Application for Green Waste Facility, Esker Lane, Lucan, Co. Dublin (Attachments)

March 2006

South Dublin County Council

County Hall
Town Centre
Tallaght
Dublin 24

SD0102/FINAL

Patel Tonra Ltd., Environmental Solutions,
3f, Fingal Bay Business Park, Balbriggan, Co Dublin

Tel: 01 802 0520 Fax: 01 802 0525 Web: www.pateltonra.com

Contents

Appendices

Drawings

Attachment B: General

B.1 Applicant's Details

Ownership Drawing

An ownership drawing for the site is attached overleaf (Figure B.1.1). The boundary showing South Dublin County Council's ownership is shown in blue ink. The proposed licensed area is shown in red.

> Figure B.1.1: Ownership Drawing

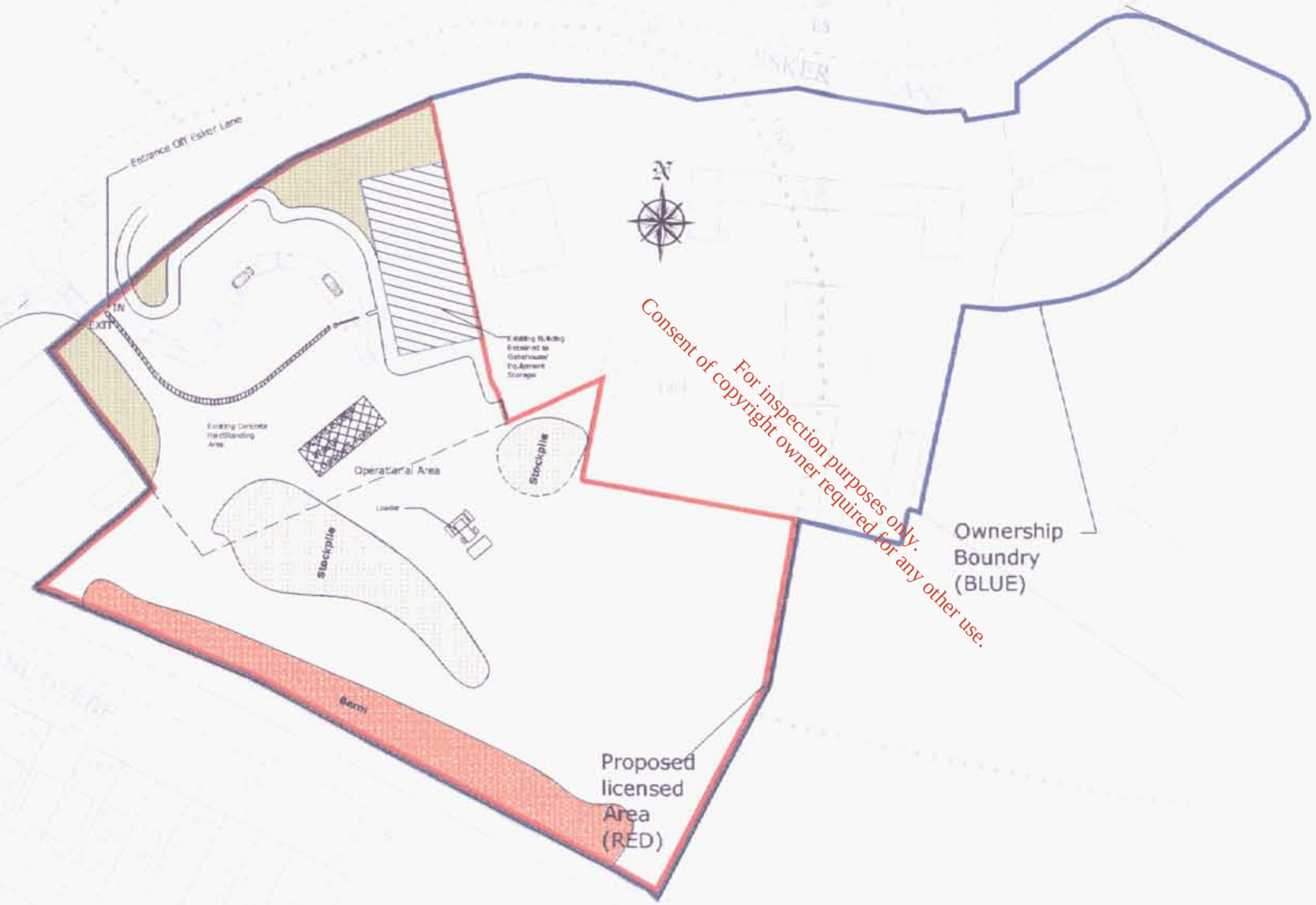


Fig. B.1.1: Ownership Drawing

patel tonra ltd.
environmental solutions

OFFICE	Civil Office		
REVISIONS		BY	DATE
A/	Revised and required changes made good	DB	14-12-0
B/	Revised and required changes made good	DB	24-01-0
C/	Revised and required changes made good	DB	15-02-0
D/	Revised and required changes made good	DB	28-02-0
E/			
DRAWN DB	CHECKED	SURVEYED	DATE 15-12-05

Drawing Status: DRAFT

VCL Consultants
12 Ashdale, Wheaton Hall, Drogheda (041) 9839958
VCL

Client: Patel Tonra Ltd.	DRAWING TITLE:
Job Title: Esker Lane C.A. Site	
SCALES: 1:500 @ A1, 1:1000 @ A3	DRAWING No. 25088-002

B.2 Location of Activity

B.2.1 Site Plan

A site plan is attached (Figure B.2.1). The boundary of the facility is shown in red ink. An 8-digit grid reference point is marked on the drawing at the corner of the storage building, i.e. E304100, N234506.

> Figure B.2.1: Site Plan

B.2.2 Location Map

An Ordnance Discovery Series map is attached (Figure B.2.2).

> Figure B.2.2: O.S. Map

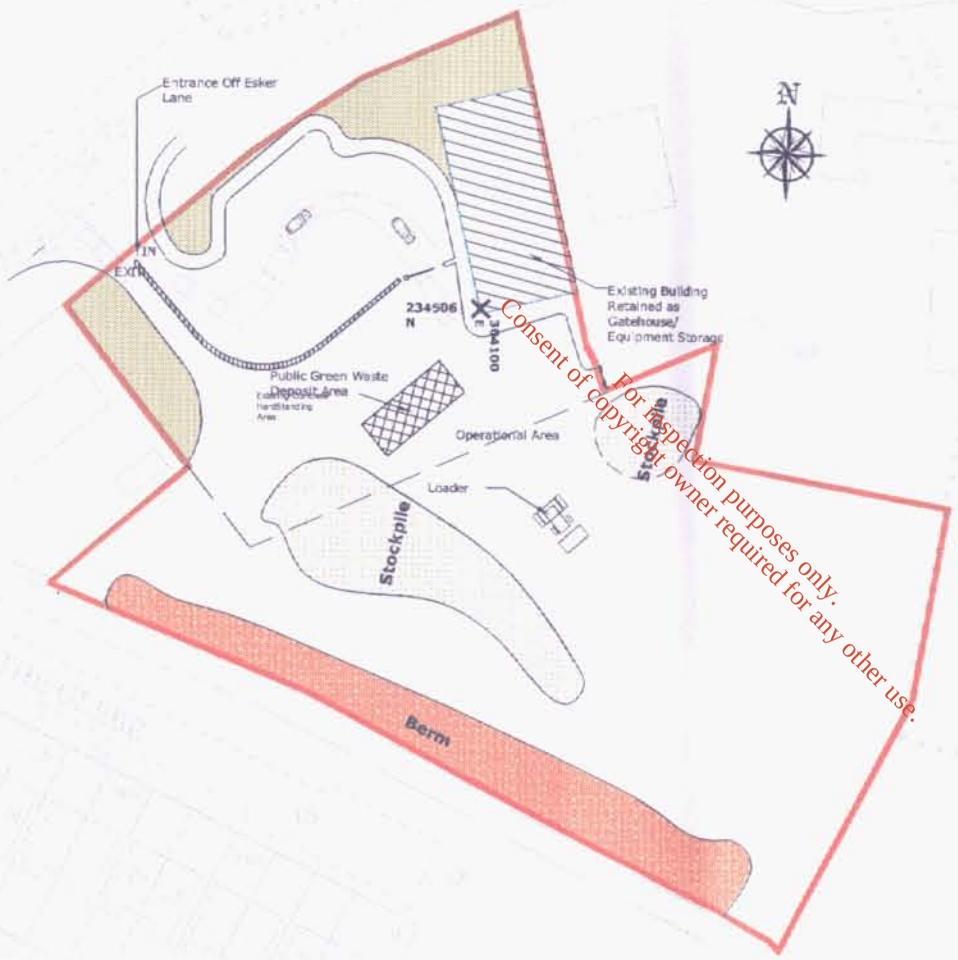


Fig. B.2.1: Site Plan

patel tonra ltd.
environmental solutions

OFFICE	Civil Office			
REVISIONS			BY	DATE
A/	Revised and required changes made good		DB	14-12-0
B/	Revised and required changes made good		DB	28-02-0
C/				
D/				
E/				
DRAWN	DB	CHECKED / SURVEYED	DATE	15-12-05
Drawing Status	DRAFT			

VCL Consultants
12 Askdale, Wheaton Hall, Drogheda. (041) 9839956

Client: Patel Tonra Ltd.	DRAWING TITLE: Site Plan
Job Title: Esker Lane C.A. Site	
SCALES: 1:1000 @ A3	DRAWING No. 25088-003

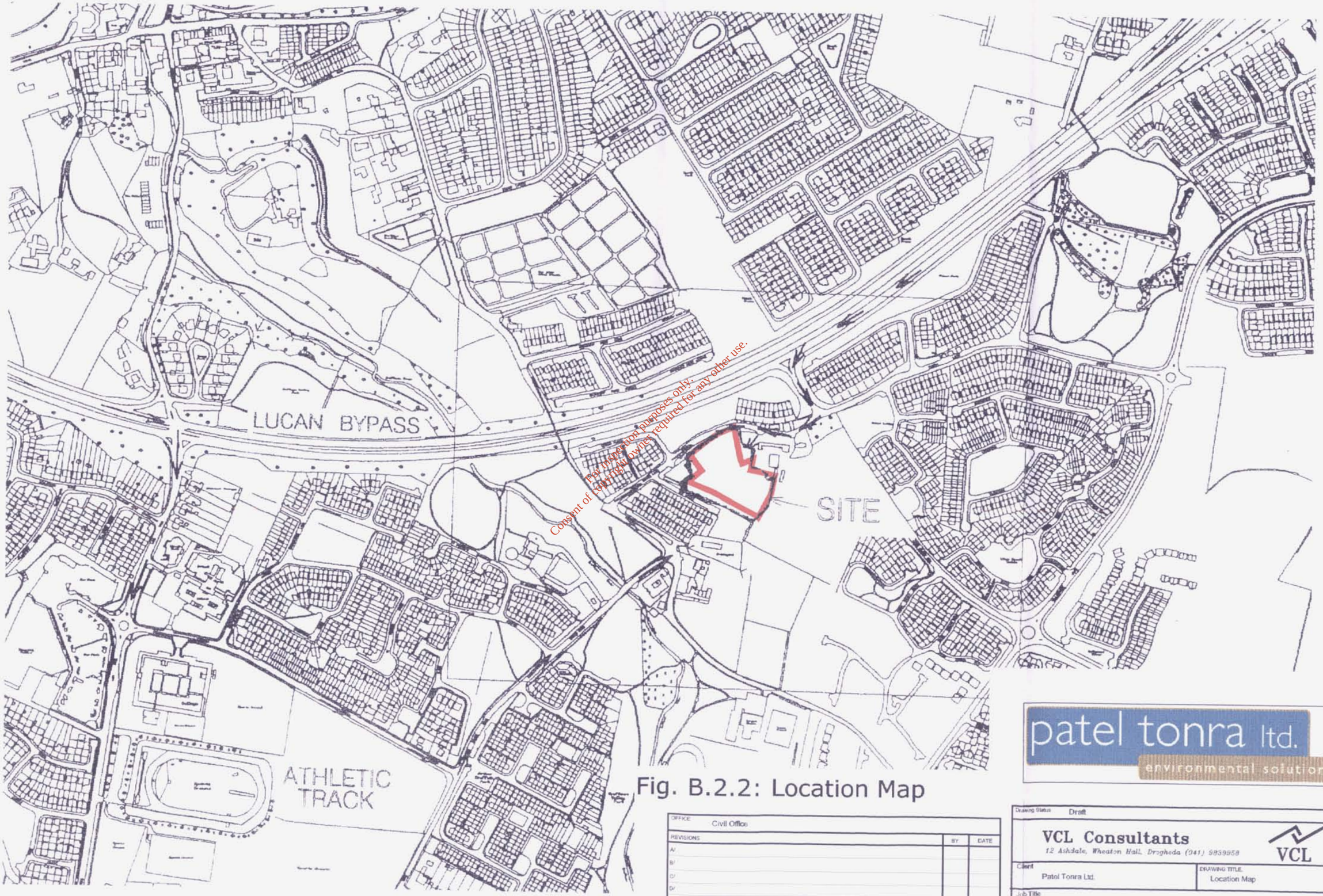


Fig. B.2.2: Location Map

patel tonra ltd.
environmental solutions

OFFICE	Civil Office
REVISIONS	BY / DATE
A/	
B/	
C/	
D/	
E/	
DRAWN	DB
CHECKED	
SURVEYED	
DATE	16-12-05

Drawing Status	Draft
	VCL Consultants 12 Ashdale, Wheaton Hall, Drogheda (041) 9839958
Client	Patel Tonra Ltd.
DRAWING TITLE	Location Map
Job Title	ESker LAne C. A. Site
SCALES	1/5000 @ A3
DRAWING No.	25088-004

B.3 Planning Authority

The Planning Authority has not been informed in writing of this application, as this is not required by a Local Authority applicant, as per Article 9 of the Waste Management (Licensing) Regulations, 2004.

Planning Permission

A report on the proposed Green Waste Facility was noted by the Community and Parks Committee at its County Council meeting of 19th January 1998. The proposals were advertised on the 29th January 1998, as prescribed by Part X of the Local Government (Planning and Development) Regulations 1994/1995. The report was noted at the South Dublin County Council Meeting on 6th April 1998 (Item ref. no. 16; Minutes ref. no. C/158/98). The Minutes stated that "…the proposed development is in accordance with the proper Planning and Development of the area…".

A copy of the Planning Permission document is attached in B.3.1.

> Appendix B.3.1: Planning Permission Decision

Existing licensing/permitting

The green waste facility at Esker Lane is licensed by the Environmental Protection Agency (EPA) under a Certificate of Registration (Number R261) dated 8th February 2000. A copy is attached in B.3.2.

> Appendix B.3.2: Certificate of Registration

The following report by the Manager which had been circulated was
CONSIDERED:

"Prescribed Statutory Notice having been given in the Public Press it is recommended that South Dublin County Council adopt the list of qualified electors for the purposes of taking a statutory plebiscite in connection with the proposal to change the name of 1A - 6A Ashfield, Templeogue Road, Dublin 6W to 315 - 325 Templeogue Road, Dublin 6W.

It was proposed by Councillor E. Walsh, seconded by Councillor S. Ardagh and
RESOLVED:

"That the Council adopt the list of qualified electors of 1A - 6A Ashfield, Templeogue Road, Dublin 6W for the purpose of taking a statutory plebiscite in connection with the proposal to change the name of 1A - 6A Ashfield, Templeogue Road, Dublin 6w to 315 -325 Templeogue Road, Dublin 6W".

C/158/98 **REPORT ON PART X LOCAL GOVERNMENT (PLANNING & DEVELOPMENT) REGULATIONS 1994/1995 - RECYCLING/GREEN COMPOST SITE AT LUCAN**

"The following report by the Manager which had been circulated was
CONSIDERED:

The following report was noted by the Community and Parks Committee at its meeting held on 19th January 1998.

"In 1994, the Council commenced the recycling of Christmas trees to reduce the amount of green material being transported for landfill. It is now intended to extend recycling activities to all green materials commencing with a pilot scheme in Lucan. The proposed facility would be similar to that operated by Dublin Corporation in St. Anne's Park, Raheny.

Grant assistance to date from the Department of the Environment and Local Government has enabled the Council to purchase a shredder and screen to process our own green waste materials. However, in order to extend the service to the public an extended facility is required.

Lucan is considered an appropriate location for the project both because of its distance from the facility in Raheny and as the site is convenient to the N4 Galway Road. It will be located within the existing works depot of the Parks & Landscape Services Department at Esker Lodge. However, in order to separate the operations of the recycling project from the normal activity of the works depot, a separate entrance will be required onto Esker Lane, and the site will be enclosed with a security fence for health and safety reasons. A building to house machinery and an extended concrete yard also form part of the proposal.
The following is a brief outline of the proposal:

- A section of the existing depot area would be dedicated to the composting facility and separated from the regular activities of the depot and from the public with a security railing.

- The construction of an entrance and concrete yard to function as a receiving area for incoming vehicles and trailers to deposit their material where it would be shredded.

- Adjacent to the concrete yard the composting area is indicated as a "Windrow Area". The existing hedge will be reinforced by the security fence and additional planting will be carried out.

- The construction of a building to store and maintain composting machinery.

Slides showing the proposal are available at the meeting.

Subject to the agreement of the members, it is now proposed to commence the consultation procedures required by Part X of the Local Government (Planning and Development) Regulations. A further report will be submitted to the Council at the conclusion of the process.

When the planning stages are completed, an application for a waste recycling grant will be submitted to the Department of the Environment and Local Government."

As prescribed in the Regulations, the proposals were advertised on 29th January 1998 Plans and particulars of the proposed development were available for inspection in the Councils offices and submission and observations, in respect of the proposal dealing with the proper planning and development of the area were invited.

No submissions or observations were received.

As the proposed development is in accordance with the proper Planning and Development of the area it is now proposed to forward an application for a waste recycling grant to the Department of the Environment and Local Government in order that the development can proceed."

The report was **NOTED.**

C/159/98 **REPORT ON APPLICATION FOR FINANCIAL ASSISTANCE BY THE NATIONAL ASSOCIATION OF BUILDING CO-OPERATIVES (NABCO) SOCIETY LTD IN ACCORDANCE WITH SECTION 6 OF THE HOUSING MISCELLANEOUS PROVISIONS) ACT 1992 FOR THE CONSTRUCTION OF 58 DWELLINGS AND A COMMUNAL FACILITY AT BROOKVIEW, TALLAGHT.**

The following report by the Manager which had been circulated was **CONSIDERED:**

An Ghníomhaireacht um Chaomhnú Comhshaoil

ENVIRONMENTAL PROTECTION AGENCY

HEADQUARTERS
JOHNSTOWN CASTLE ESTATE
COUNTY WEXFORD, IRELAND
PHONE: +353-53-60600
FAX: +353-53-60699

WASTE MANAGEMENT (PERMIT) REGULATIONS
S.I. NO. 165 OF 1998

CERTIFICATE OF REGISTRATION

Further to an application Register No. R261 received on 22nd November 1999, the Environmental Protection Agency (the Agency), in pursuance of the powers conferred on it by the Waste Management (Permit) Regulations, 1998, grants this certificate of registration under Article 21 of the said Regulations to South Dublin County Council, P.O. Box 4122, Town Centre, Tallaght, Dublin 24.

This certificate of registration is in respect of the recovery of waste by South Dublin County Council at a facility at Esker Lodge, Lucan, Co. Dublin, where the annual intake of waste will not exceed 5,000 tonnes and the amount of waste and compost held at the facility at any time will not exceed 1,000 tonnes. The registered classes of Waste Recovery Activity from the Fourth Schedule of the Waste Management Act, 1996 are:

Class 2: *Recycling or reclamation of organic substances which are used as solvents (including composting and other biological transformation processes).*

Class 10: *The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system.*

The following wastes may be recovered at the facility:

Green Waste

It is the responsibility of South Dublin County Council to ensure that the registered waste activities are carried on in accordance with the following conditions specified in the Regulations:

a) the activity concerned shall not cause, or be likely to cause, environmental pollution
b) any emissions from the activity concerned will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any enactment.

Sealed by the seal of the Agency on this 8th day of February, 2000

Present when the seal of the Agency was applied hereto:

B. Sheehan Authorised Person

B.4 Sanitary Authority

Only domestic sewage from 2 No. toilets is discharged to sewer. There is no effluent discharge licence for the facility.

B.5 Other Authorities

Not applicable

B.6 Notices and Advertisements

A copy of the text of the site notice is attached.

> Appendix B.6.1: Site Notice

A drawing showing the location of the site notice on site is attached.

> Figure B.6.1: Location of Site Notice

A copy of the whole page of the newspaper containing the advertisement is attached.

> Appendix B.6.2: Newspaper Advertisement

The complete newspaper containing the advertisement is included with the original application.

To be inserted.

	SOUTH DUBLIN COUNTY COUNCIL
	Comhairle Contae Átha Cliath Theas

APPLICATION TO

THE ENVIRONMENTAL PROTECTION AGENCY

FOR A WASTE LICENCE

Notice is hereby given in accordance with the provisions of the Waste Management Acts, 1996 to 2005 and Part II of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004), that South Dublin County Council, Environmental Services Department, with headquarters at County Hall, Town Centre, Tallaght, Dublin 24, will apply for a Waste Licence to the Environmental Protection Agency in respect of a Green Waste Facility located at Esker Lane, Lucan, Co. Dublin (National Grid Reference E304100, N234506).

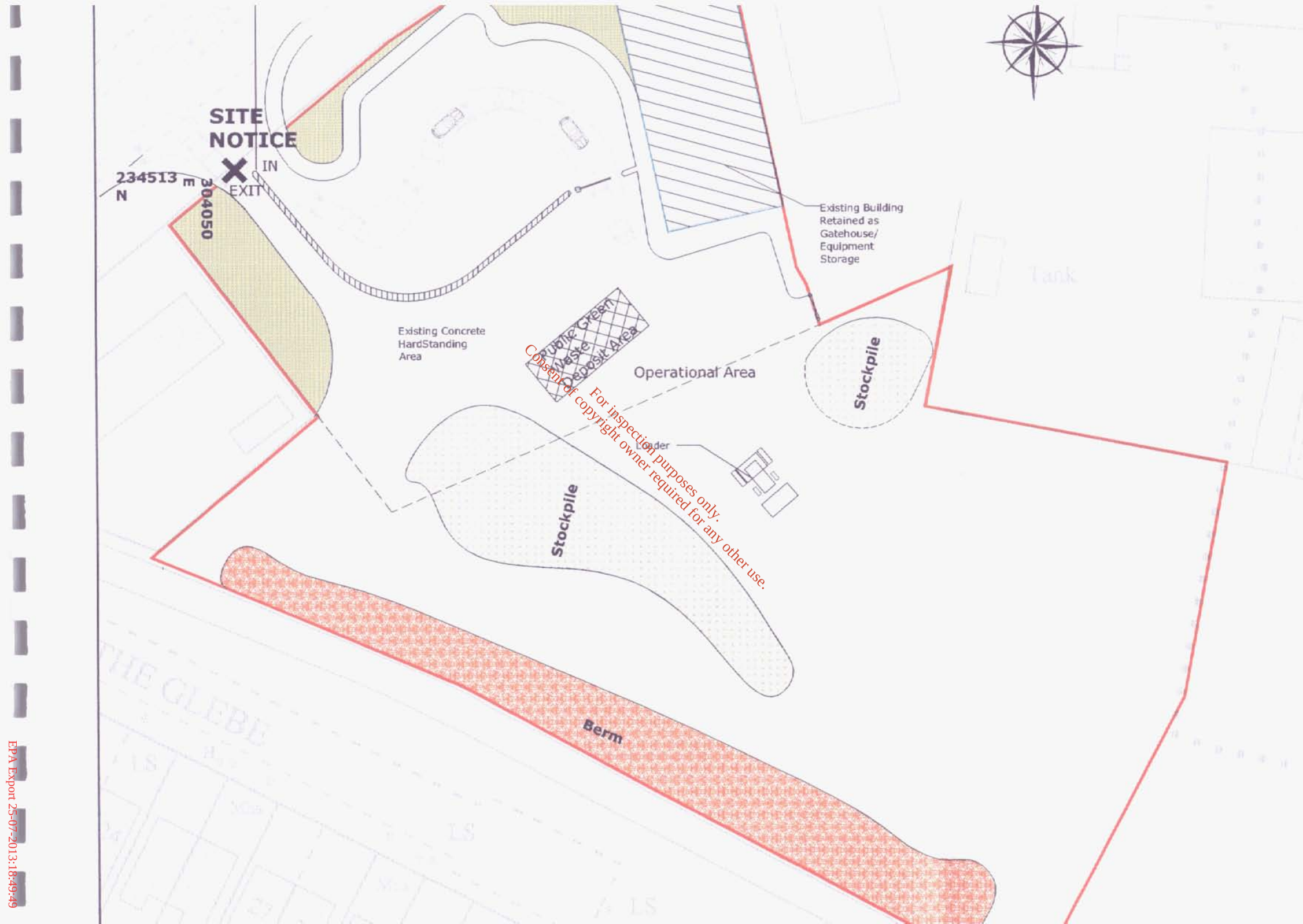
The facility will accept clean, green garden waste. A proposed maximum of 20,000 tonnes per annum will be accepted into the facility. The green waste will be stored temporarily on-site, prior to being transported off-site for shredding and composting. Up to four waste handling machines will be used on site for loading and handling operations.

It is proposed to install a weighbridge for recording weights of green waste dispatched from the facility for composting and a small portacabin weighbridge office. An existing office and equipment storage building will be retained. It is proposed to construct boundary walls, complete concrete hardstanding of the operational area of the site and install a silt trap and oil interceptor for surface water management.

The class of activity in accordance with the Fourth Schedule (Waste Recovery Activities) of the Waste Management Acts, 1996 to 2005 is as follows:

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.

A copy of the Waste Licence Application and any 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 Headquarters of the Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Co. Wexford and at the offices of South Dublin County Council, Environmental Services Department, County Hall, Town Centre, Tallaght, Dublin 24.



IRISH INDO 9/3/06

South Dublin County Council

Comhairle Contae Átha Cliath Theas

www.southdublin.ie

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTE LICENCE

Notice is hereby given in accordance with the provisions of the Waste Management Acts, 1996 to 2005 and Part II of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004), that South Dublin County Council, Environmental Services Department, with headquarters at County Hall, Town Centre, Tallaght, Dublin 24, will apply for a Waste Licence to the Environmental Protection Agency in respect of a Green Waste Facility located at Esker Lane, Lucan, Co. Dublin (National Grid Reference E304100, N234506).

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A copy of the Waste Licence Application and any 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 Headquarters of the Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Co. Wexford and at the offices of South Dublin County Council, Environmental Services Department, County Hall, Town Centre, Tallaght, Dublin 24.

www.southdublin.ie for all your information needs

Fingal County Council Comha

PLANNING AND DEVELOPME

PLANNING AND DEVELOPMEN

PROPOSED CONSTRUCTION (
AT MAIN STREET, RUS

In accordance with Part XI of the Plan 2000 and Part 8 of the Planning and D Fingal County Council hereby gives no construct four two-bed two-storey dw at Main Street, Rush, Co. Dublin.

The proposal is shown on drawings nu GAL04/105 - 151

As required by Article 81 of the Regul of the proposed development will be a between the hours of 9.30 a.m. to 4.0(Thursday 9th March, 2006 to Wednes(

- **The Offices of Fingal County Coun Main Street, Swords, Fingal, Co. D**

In addition the documents are being r between the hours of 9.30 a.m. to 4.0(Thursday 9th March, 2006 to Wednes(following location:

- **The Offices of Fingal County Coun Blanchardstown, Fingal, Dublin 1**

Submissions or observations with res develo proper develo the de may b

Senio Consti Count Blanc befor 19th A

NDP NATIONAL DEVELOPMENT PLAN

"Funded by the Irish Government under the National Development Plan, 2000 to 2006"

Your Plan - Your Future

Leitrim County

Comhairle Chontae Liatrom

PUBLIC CONTRACT NC WORKS CONTRACT RESTRICTED PROCEDU

Leitrim County Council seeks expres Contractors wishing to tender for during 2006. The anticipated scope during March to October 2006 co two sites throughout County Leitrim w associated works on Road Resurfaci

Proposed locations and anticipatec

1. N4 Route, Annaduff Townland, DBM Overlay & HRA and all as
2. N16 Route, Cornastauk Tow Regulation, DBM Overlay & HR

Selection of Contractors who will b Resurfacing Contracts during 200 single Restricted Procedure. In acc of the EC Directive 93/37/EEC facilitate Leitrim County Council tenderers, candidates shall c

B.7 Type of Waste Activity

The principle activity, in relation to the Schedules of the Waste Management Acts 1996 to 2003, is Class 13 of the Fourth Schedule (Waste Recovery Activities), "*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"*.

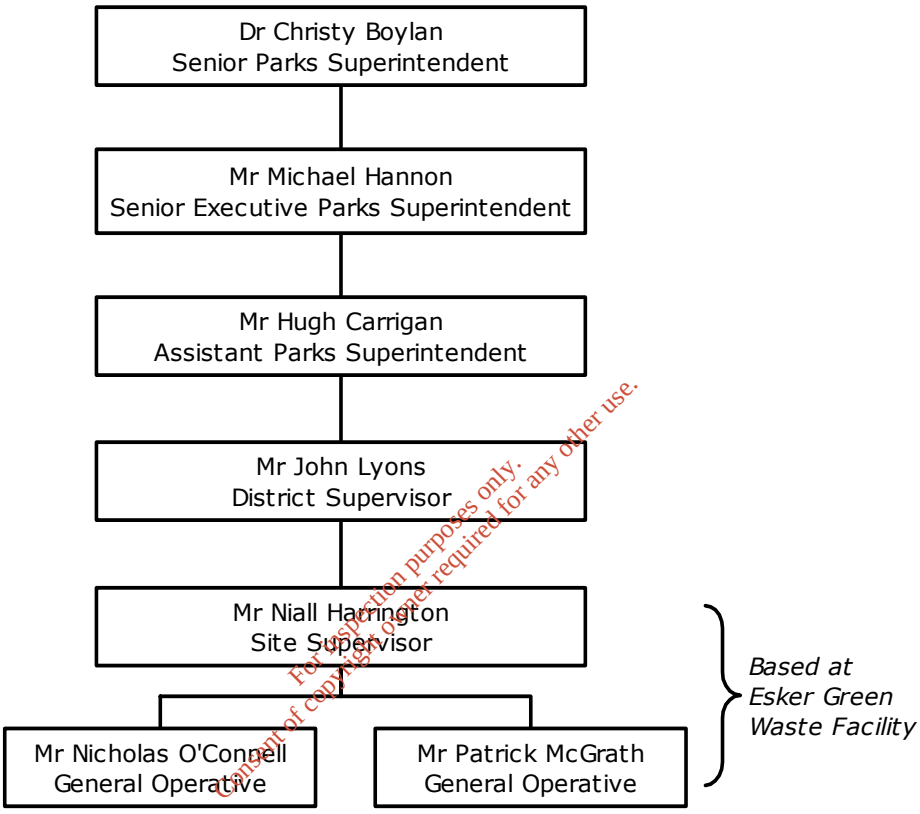
Green waste (including hedge trimmings, grass clippings, trees/woody materials, etc.), delivered to the site by members of the public, is stored temporarily at the Esker Lane facility, prior to being moved to off-site facilities for composting.

In the past, green waste was shredded at the Esker Lane facility, prior to removal off-site. Shredding at the facility ceased in January 2006.

Attachment C: Management of the Facility

C.1 Technical Competence and Site Management

The following personnel have responsibility for management and operation of the facility:



C.2 Environmental Management System (EMS)

No Environmental Management System (EMS) has been developed for the facility. An EMS will be developed in line with EPA requirements, with relevant procedures, etc. documented and implemented, upon granting of a Licence.

C.3 Hours of Operation

The current hours of **operation** and green waste **acceptance** are:

- **Summertime (March to October inclusive):**

  Monday to Friday: 08:30 to 17:30
  Saturday: 08:30 to 16:00
  Sunday: Closed

- **Wintertime (November to February inclusive):**

  Monday to Friday: 08:30 to 16:00
  Saturday: 08:30 to 14:30
  Sunday: Closed

The proposed hours of **operation** are:

- **Summertime (March to October inclusive):**

  Monday to Friday: 08:00 to 18:30
  Saturday: 08:30 to 17:00
  Sunday: Closed

- **Wintertime (November to February inclusive):**

  Monday to Friday: 08:00 to 16:30
  Saturday: 08:30 to 15:30
  Sunday: Closed

The proposed hours of green waste **acceptance** are:

- **Summertime (March to October inclusive):**

  Monday to Friday: 08:30 to 17:30
  Saturday: 08:30 to 16:00
  Sunday: Closed

- **Wintertime (November to February inclusive):**

  Monday to Friday: 08:30 to 16:00
  Saturday: 08:30 to 14:30
  Sunday: Closed

The hours of any construction and development works at the facility and all other activities will coincide with hours of operation.

Attachment D: Infrastructure & Operation

D.1 Infrastructure

D.1.a Site Security arrangements including gates and fencing

At present, the perimeter of the site is bounded by a palisade fence on all sides (see Plate D.1.a.2). There is a soil berm, approximately 2 to 3m in height, inside the facility boundary adjoining The Glebe to the south west of the site.

There are heavy-duty palisade gates at the entrance and exit, which are securely locked when the site is closed (see Plate D.1.a.1).

A Site Office is in existence with a clear view of the entrance to the site and good visibility over much of the site. The site is manned at all times during operational hours. All visitors must report to reception, where they pay the relevant charge based on vehicle type. Access to the material drop-off location is barrier-controlled at this point.

There are locked storage areas inside the facility which house vehicles and equipment overnight.

The site is adequately lit during operational hours and there is lighting at the site entrance outside of opening hours also.

Plate D.1.a.1: Facility entrance (right hand side) and exit (left hand side)

Plate D.1.a.2: Facility boundary fence, eastern boundary

Proposals

Further perimeter screening is proposed, in the form of boundary walls, as shown on Drawing D.1.1.

A CCTV monitoring system is proposed for the site, with camera coverage on the following areas:

- Entrance/exit gates
- Traffic barrier at Site Office/Reception
- Material drop-off area

D.1.b Designs for Site Roads

Access to the site is from Esker Lane, *ca.* 250 metres off the Lucan Bypass. The facility has one entrance and one exit gate to permit the free flow of traffic in a one-way system within the site (See Plate D.1.b.1).

Site roads to permit the flow of users through the facility is clearly marked out and cordoned off. Users are not permitted to enter the operational side of the facility.

There are no designated roads within the operational side of the site, rather the entire area is comprised of hardstanding/fill. The volume of traffic in this portion of the site is very low.

Proposals

Redesign of site roads is shown in Drawing D.1.1.

Plate D.1.b.1: User traffic is cordoned off from site operations

D.1.c Design of Hardstanding Areas

The site comprises an area of reinforced concrete slab, which acts as the reception area, drop-off and loading point for users. This area is well marked/labelled to guide users through the one-way system.

The remainder of the site acts as storage and operational areas for the green waste; this part of the site is comprised of compacted fill material.

Proposals

It is proposed to extend the concrete slab to cover the entire proposed storage and operational area of the site. This will extend to the temporary fencing shown on Drawing D.1.1. It is proposed that the area of the site to the east of this fencing will be disused.

D.1.d Plant

Four waste handling machines are used at the Esker Lane facility: two are council-owned and operate on a full-time basis, i.e. a 2001 model Landini top 165 tractor with front-end loader, and a JLG telescopic loader with 1.5 cubic meter bucket. Two machines are contractor-owned, i.e. two 2004 JCB telescopic loading shovels 530/70 fitted with 3 cubic meter buckets. It is likely that the number of handling machines will decrease due to the cessation of on-site shredding.

There is no existing weighbridge on site.

Proposals

All green waste brought to the site by domestic or commercial users will be removed off-site for shredding and composting. It is proposed to install an 'out' weighbridge, such that all vehicles removing green waste from the facility to the composting site will be weighed. This will avoid the need for cars entering and exiting the site to be weighed to establish the weight of the material deposited. This would not be a practical solution and one which could cause a traffic nuisance.

The tonnage of waste recorded on the 'out' weighbridge will be used for EPA reporting purposes, and to ensure compliance with licence threshold tonnages.

D.1.e Wheelwash

There is no wheelwash at the site.

No wheelwash is proposed however it is proposed that a lance/power wash facility will be installed to wash down excessively dirty vehicle wheels when required.

D.1.f Laboratory Facilities

There are no on-site laboratory facilities.

No laboratory facilities are proposed.

D.1.g Design and location of fuel storage areas

Diesel is stored in an onsite 1,000-litre double-skinned tank for use by site vehicles.

No additional fuel storage areas are proposed.

D.1.h Waste Quarantine Areas

A strict waste acceptance policy is enforced at the facility. Unacceptable wastes will not be allowed on site. In the event that unacceptable waste enters the site, the user will be asked to remove it to an appropriate facility.

Proposals

A Waste Quarantine area will be dedicated on site, in the event of illegally deposited waste being left at or outside the facility outside of operational hours. This waste will be diverted to an EPA-approved facility.

D.1.i Waste Inspection Areas

All green waste is inspected in its delivery vehicle at the reception area, prior to the entrance barrier, and again after it has been dropped off, in the waste deposit area.

It is not proposed to construct a Waste Inspection Area.

D.1.j Traffic Control

Traffic control on site is controlled primarily by the design and layout of the site, along with signage, road markings, barriers and verbal instructions from staff. On-site safety of users and traffic movement has been taken into account in designing the site layout and roads. The following traffic control measures have been adopted:

- One-way traffic flow at all times
- Separate access and egress
- Segregation of vehicles – service vehicles and users

- Designated parking areas
- Speed restrictions
- Signage (See Plate D.1.j.1)
- Manned reception
- Barrier controls
- Separation of areas using traffic cones
- Restrictions on types of vehicles using the facility
- Restricted opening hours

The classes of vehicle using the proposed facility during operational hours will be as follows:

- Private vehicles using the green waste deposit facility
- Commercial vehicles delivering green waste to the facility
- Service vehicles collecting green waste from the Green Waste Facility for transfer to the shredding and composting site
- Staff vehicles and visitors

Plate D.1.j.1: User traffic is cordoned off from site operations

Proposals

Revised traffic flows are proposed as per Drawing D.1.1.

D.1.k Sewerage and surface water drainage infrastructure

2 No. on-site toilets are connected to the mains sewer. There is no other wastewater emitted from the facility.

Surface water drains from the site towards a drain along the south-western boundary.

Proposals

It is proposed to install a silt trap and oil interceptor at the site, to conform with international standards, and in agreement with the Agency.

D.1.l All other services

The site is serviced by electricity and a telephone connection.

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

There is an on-site garage, approximately 22m by 13.5m. This is used to house vehicles and equipment overnight.

D.1.n Site Accommodation

The total area of the site is approximately 8,337m². The facility includes one on-site fixed structure in the north east of the site: a *ca.* 380m² office and equipment storage building.

Proposals

It is proposed to install a small portacabin unit in the north-west of the site (See Drawing D.1.1) to act as the weighbridge office.

D.1.o Fire Control System, including water supply

The building is fitted with smoke detectors and fire extinguishers.

Proposals

It is proposed to install a fire hose reel at two locations outdoors at the facility.

D.1.p Civic Amenity facilities

There are no Civic Amenity facilities on-site, other than the reception of green waste.

No Civic Amenity facilities are proposed.

D.1.q Any other waste recovery infrastructure

No other waste recovery infrastructure is proposed.

D.1.r Composting infrastructure

The Esker Lane facility is for the reception of green waste only. There is no on-site composting.

No composting infrastructure is proposed.

D.1.s Construction and Demolition waste infrastructure

No C&D waste infrastructure is proposed.

D.1.t Incineration infrastructure

No incineration infrastructure is proposed.

D.1.u Any other infrastructure

The following infrastructure is proposed as part of the redesign of the green waste facility (See Figure D.1.1):

1. Boundary walls (3m high) on 2 sides to prevent noise and dust migration
2. Push walls and concrete storage areas for green waste reception and storage
3. Sprinkler system for dust suppression
4. Rainwater collection system from the roof of the building
5. Direction of traffic clearly labelled with appropriate signage
6. Windsock for visual assessment by operatives as to suitability of weather conditions for various activities
7. Fencing to separate the active operational area from the disused area in the east of the site
8. Education Area: It is proposed that an area will be set aside for educating the public on composting and recycling. It is proposed to locate this Compost/Recycling Education Area in the western corner of the site. (See Figure D.1.1)

> Figure D.1.1: Proposed Facility Layout

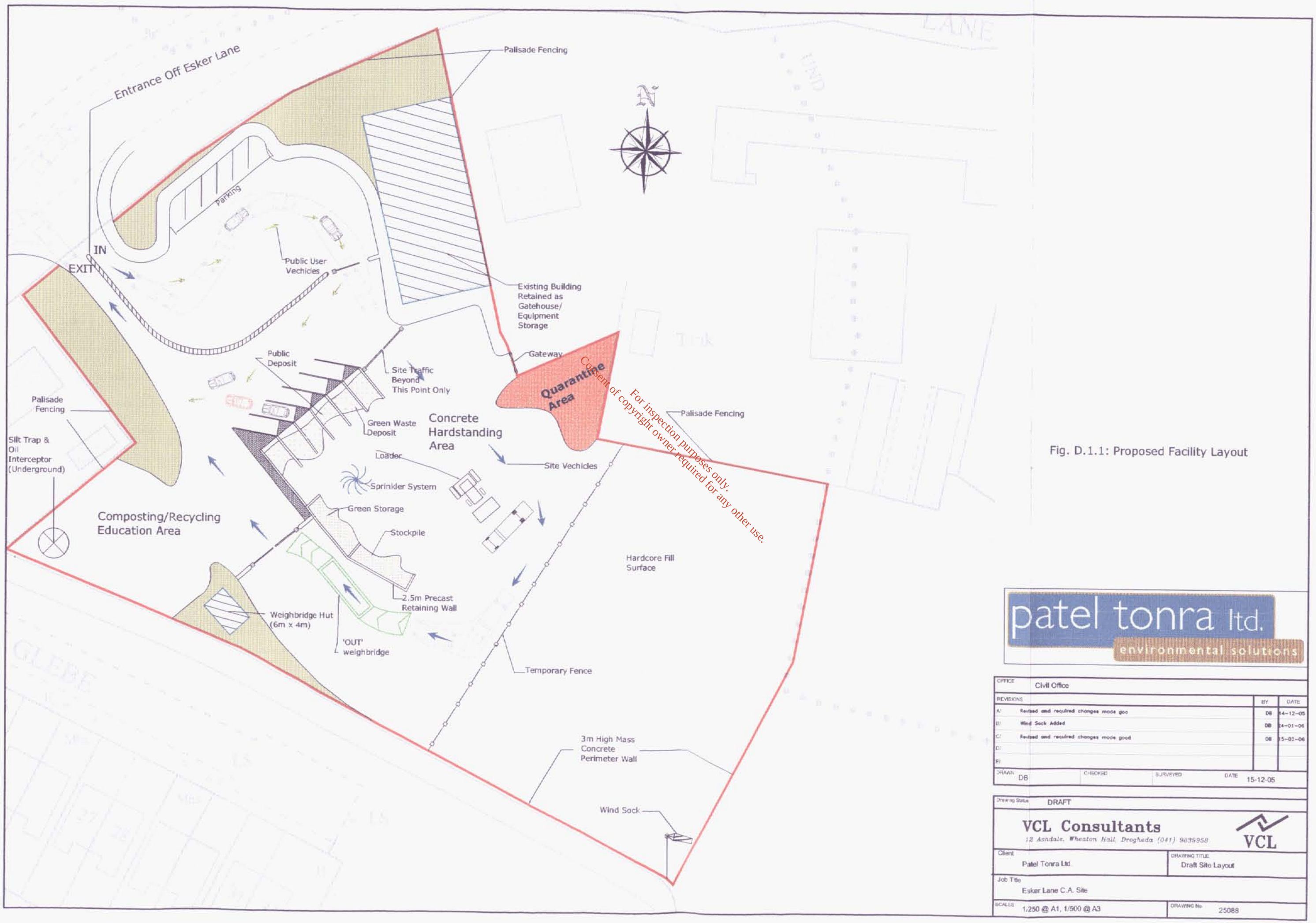


Fig. D.1.1: Proposed Facility Layout

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environmental solutions

OFFICE	Civil Office			
REVISIONS			BY	DATE
A/	Revised and required changes made 22c		DB	14-12-05
B/	Wind Sock Added		DB	24-01-06
C/	Revised and required changes made good		DB	15-02-06
D/				
E/				
DRAWN DB	CHECKED	SURVEYED	DATE 15-12-05	

Drawing Status: DRAFT

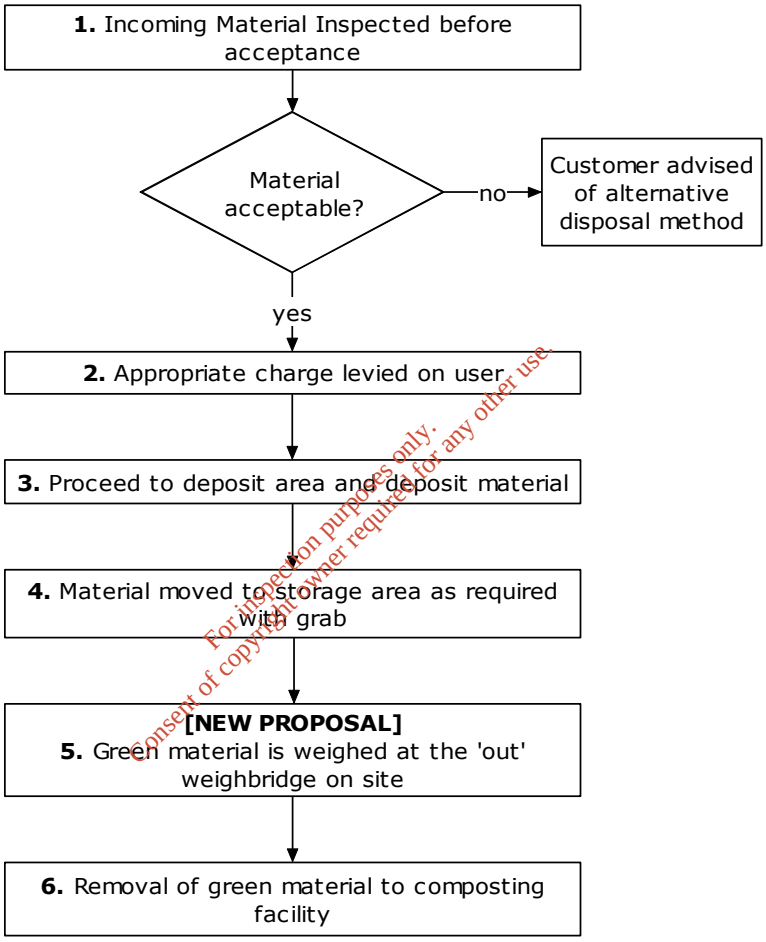
VCL Consultants
12 Ashdale, Wheaton Hall, Drogheda (041) 9839958

Client: Patel Tonra Ltd.	DRAWING TITLE: Draft Site Layout
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No. 25088

D.2 Facility Operation

D.2.1 Green Waste Facility

The Green Waste Facility provides a service for the disposal of green waste in a responsible, environmentally sustainable manner. Waste accepted includes all uncontaminated green waste such as tree prunings, leaves and grass cuttings. An overview of the process flow in the Green Waste Facility is indicated in the flow chart below.



The waste will be transported from the site to a composting facility operated by Bord na Mona plc. at Kilberry, Athy, Co. Kildare – Waste Licence Number 198-1.

All loads entering the site are inspected for contamination by staff manning the Site Office. A charge is levied on users determined by the size of vehicle being used to transport material to the facility (e.g. car, small trailer, van etc.). This is recorded by site staff.

The customer is directed to the green waste deposit area.

D.2.2 Unit Operations

The unit operations at the Green Waste Facility, as depicted in the flow chart above, are as follows:

- Inspection/acceptance of incoming green waste
- Deposit of green waste by members of the public and commercial users
- Transfer of green waste from deposit area to holding area
- Loading of material for off-site removal
- Weighing of material out (this does not happen currently, but forms part of proposals for the Waste Licence Application)
- Removal off-site for composting

D.2.3 Emissions to Environment

The main environmental emissions related to the operation of the green waste facility are as follows:

1. **Noise:** The main noise emission from the site is associated with traffic movements, and the operation of site machinery. Shredding operations ceased at the site in January 2006, thereby reducing overall noise emissions from the facility.
2. **Dust:** The deposit and storage of green waste on site has the potential to generate dust. Shredding operations ceased at the site in January 2006, thereby reducing overall dust emissions from the facility.
3. **Odour**: The storage of green wastes has the potential for odour generation. Freshly processed material smells of grass, vegetation and resinous odours. Minimising the storage time of green materials at the site will prevent the onset of anaerobic conditions, which can cause odour issues.

D.2.4 Laboratory Facilities

No laboratory facilities exist on the site. No laboratory facilities are proposed.

D.3 Liner System

Not applicable

D.4 Leachate Management

Not applicable

D.5 Landfill Gas Management

Not applicable

D.6 Capping System

Not applicable

Attachment E: Emissions

E.1 Emissions to Atmosphere

There are no stack emissions associated with the facility. The following table lists potential fugitive emissions to air.

Type of Emission	Source	Emission Points
▫ Dust	Loading/unloading/storage activities	A2-1
▫ Odour	Loading/unloading/storage activities	A2-1
▫ Landfill gas emissions	NOT APPLICABLE	-
▫ Landfill leachate emissions	NOT APPLICABLE	-
▫ Infectious organisms/pathogens (clinical waste handling)	NOT APPLICABLE	-
▫ Thermal oxidizer emissions	NOT APPLICABLE	-
▫ Other emissions	NOT APPLICABLE	-

See also TABLE E.1 (iv): EMISSIONS TO ATMOSPHERE - Minor/Fugitive of the application document

A drawing (Figure E.1.1) showing the location of these points is attached.

> Figure E.1.1: Emissions to Atmosphere

Odour and dust monitoring results are included in Attachment I.

Fig. E.1.1: Fugitive Emissions to Atmosphere

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OFFICE	Civil Office			
REVISIONS			BY	DATE
A/	Revised and required changes made good		DB	4-12-0
B/	Revised and required changes made good		DB	4-02-0
C/	Revised and required changes made good		DB	28-02-0
D/				
E/				
DRAWN	DB	CHECKED	SURVEYED	DATE 15-12-05

Drawing Status: DRAFT

VCL Consultants
12 Ashdale, Wheaton Hall, Drogheda (041) 9839958
VCL

Client: Patel Tonra Ltd.	DRAWING TITLE: Fugitive Emissions to Atmosphere
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No. 25088-005

E.2 Emissions to Surface Waters

Surface water on the site drains to a channel along the western boundary. It enters the adjacent Pumping Station via a manhole located in the north-western corner of the site. There is no direct discharge to the Griffeen River, which flows approximately 100m from the site, at its closest point, however an upstream and downstream sample were taken for background purposes (See Attachment I). There are no other direct emissions to surface water.

E.3 Emissions to Sewers

Lavatory and washing facilities from 1 No. site office building are the only emissions to sewer.

E.4 Emissions to Groundwater

There are no direct emissions to groundwater from the site. There are no groundwater monitoring boreholes on or adjacent to the site.

E.5 Noise Emissions

The main noise sources associated with the site are traffic flows entering and leaving the site, and the operation of associated site machinery. A drawing (Figure E.5.1) showing the location of noise emission points is attached.

> Figure E.5.1: Noise Emission Points

Noise monitoring data is included in Chapter I.

Vibration impacts from the facility are regarded as insignificant.

E.6 Environmental Nuisances

E.6.a Birds, Pests & Vermin

Birds, pests and vermin do not pose a significant risk or environmental issue at the green waste sites. This tends to be become an issue only where domestic or food waste is involved. The materials handled on-site are of low nutritional value to macro-organisms, therefore the presence of vermin on-site is not a problem and no preventative measures are recommended at this time.

E.6.b Traffic

Traffic volumes associated with the facility may be influenced by the number of users of the facility, staff traffic movements, internal site traffic movements and heavy vehicle movements between Esker Lane and the composting site.

A total number of 33,703 customer vehicles entered the Esker Lane facility in 2005 (See Figure and Table E.6.b.1). This gives a monthly average of 2,808 vehicles, or a daily average of approximately 117 vehicles. Cars represent 47% of the total incoming vehicles. The data is based on single-trip journeys.

Fig. E.5.1: Noise Emission Points

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OFFICE	Civil Office		
REVISIONS		BY	DATE
A/	Revised and required changes made good	DB	14-12-0
B/	Revised and required changes made good	DB	14-02-0
C/	Revised and required changes made good	DB	28-02-0
D/			
E/			
DRAWN DB	CHECKED	SURVEYED	DATE 15-12-05

Drawing Status: DRAFT

VCL Consultants
12 Ashdale, Wheaton Hall, Drogheda (041) 9839958
VCL

Client: Patel Tonra Ltd.	DRAWING TITLE: Noise Emission Points
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No: 25088-006

Figure E.6.b.1: Traffic Movements at Esker Lane, 2005

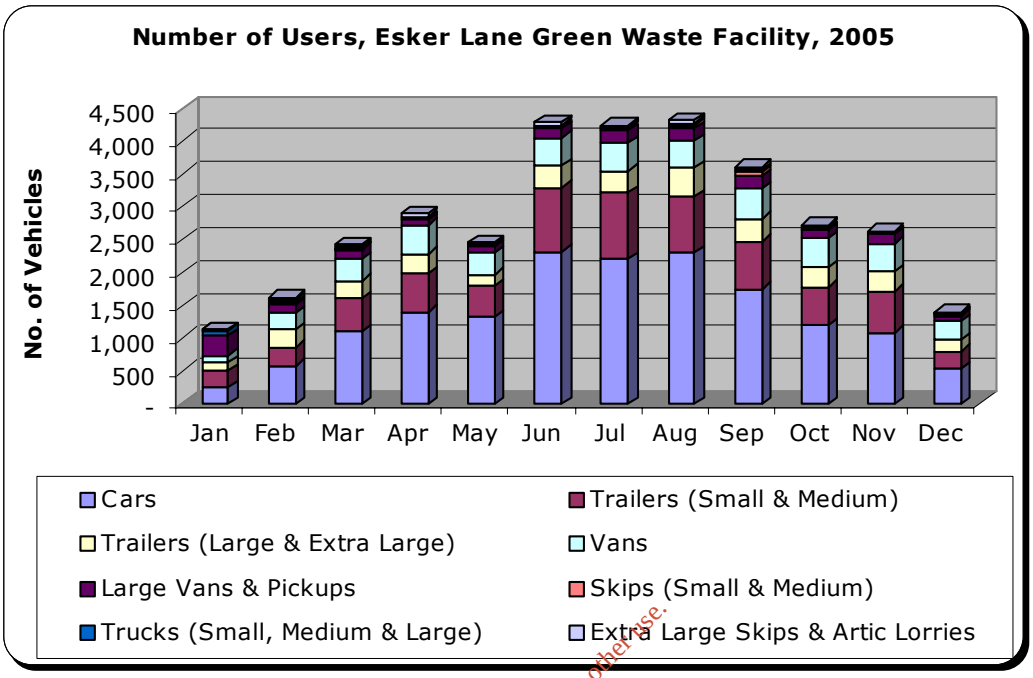

Table E.6.b.1: Traffic Movements at Esker Lane, 2005

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	**Total**
Cars	257	581	1,094	1,395	1,322	2,315	2,194	2,304	1,742	1,186	1,079	535	**16,004**
Trailers (Small & Medium)	241	281	515	581	461	973	1,025	841	724	589	630	269	**7,130**
Trailers (Large & Extra Large)	124	274	263	304	182	339	328	439	349	304	306	179	**3,391**
Vans	118	237	339	443	322	424	424	423	456	431	424	276	**4,317**
Large Vans & Pickups	300	145	135	85	95	132	184	184	183	124	142	78	**1,787**
Skips (Small & Medium)	3	13	6	26	37	30	14	44	75	36	31	26	**341**
Trucks (Small, Medium & Large)	72	57	36	20	9	19	32	35	25	23	10	21	**359**
Extra Large Skips & Artic Lorries	6	36	25	44	23	43	40	56	49	25	11	16	**374**
Total	**1,121**	**1,624**	**2,413**	**2,898**	**2,451**	**4,275**	**4,241**	**4,326**	**3,603**	**2,718**	**2,633**	**1,400**	**33,703**

A total number of 20,726 customer vehicles entered the Esker Lane facility in 2004 (See Figure and Table E.6.b.2). This gives a monthly average of 1,727 vehicles, or a daily average of approximately 70 vehicles. Cars represent 44% of the total incoming vehicles. The data is based on single-trip journeys.

Figure E.6.b.2: Traffic Movements at Esker Lane, 2004

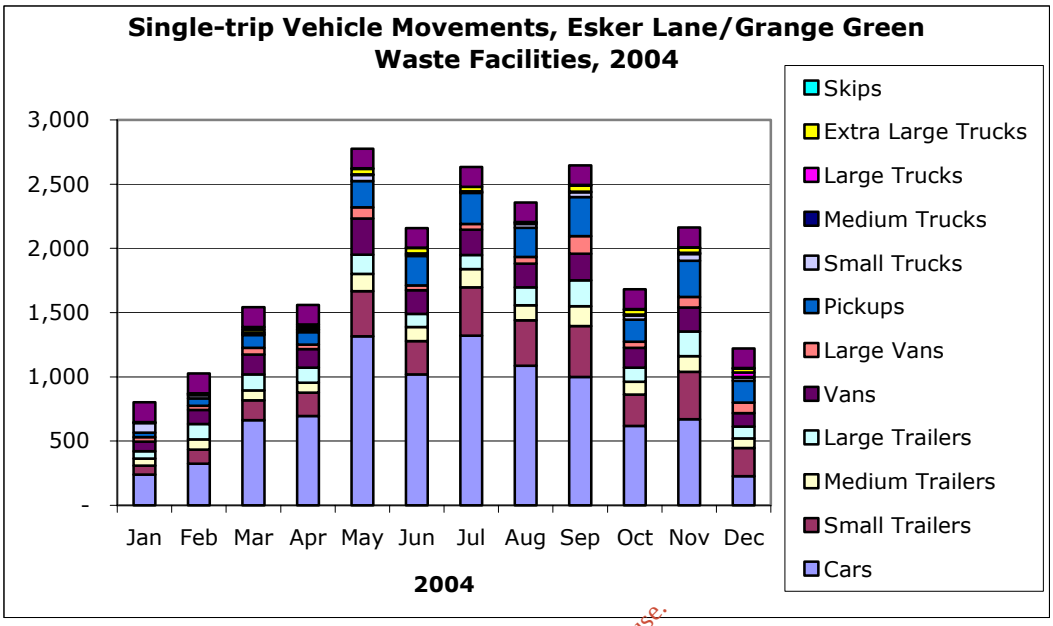

Table E.6.b.2: Traffic Movements at Esker Lane, 2004

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Cars	238	323	664	695	1,315	1,020	1,320	1,087	999	617	670	227	**9,175**
Small Trailers	71	111	153	182	353	259	377	352	396	244	370	220	**3,088**
Medium Trailers	54	79	77	77	133	109	142	119	156	101	120	75	**1,242**
Large Trailers	57	121	125	118	151	101	110	140	200	109	192	91	**1,515**
Vans	76	108	154	144	280	185	196	182	208	154	189	104	**1,980**
Large Vans	34	34	53	36	87	39	44	53	136	48	82	84	**730**
Pickups	36	55	100	96	204	227	243	227	304	172	281	168	**2,113**
Small Trucks	75	25	8	15	49	10	-	30	37	32	53	25	**361**
Medium Trucks		2		1	1	2	4	9	1	-	3	4	**27**
Large Trucks	2	3	12	2	4	9	8	2	6	7	6	36	**97**
Extra Large Trucks	4	9	22	19	42	43	34	3	47	38	40	30	**331**
Small Skips	1				1		2	1		1	1	2	**9**
Medium Skips					2								**2**
Large Skips		2	20	20	1	1			3	5	2	2	**56**
TOTAL	**648**	**872**	**1,388**	**1,407**	**2,623**	**2,005**	**2,480**	**2,205**	**2,493**	**1,528**	**2,009**	**1,068**	**20,726**

E.6.c Odour Nuisance

See Attachment I.

E.6.d Litter, Mud & Debris

Green waste litter, mud and debris brought on and off the site can cause a nuisance to road users and site neighbours on local site roads. Litter control at the site is a minor problem and arises when loads of green wastes are transported to the site in trailers etc. without been sufficiently covered by netting material or by a tarpaulin. The site operator will adopt the practice of informing these individuals that all loads must be sufficiently covered before they are permitted to use the facility. Repeat offenders will be denied access to the site.

Due to the nature of the materials being processed, wind-borne litter is not a problem; also due to the low nutritional value of the mulch, vermin-scattered litter is not a problem. Any debris found in or around the site will be picked on a daily basis by the site operatives.

The following control measures are proposed:

- Customer and SDCC vehicles should be covered entering and exiting the sites to prevent material falling off or becoming wind-blown. Vehicles should not be overloaded.
- Particular attention should be paid to keeping areas immediately outside the site clean and tidy, to ensure that there is no negative visual impact associated with the facility. Material fly-tipped outside the facility should be removed by South Dublin County Council as soon as practicable.
- As an ongoing measure, it shall be ensured that all roadways within the site and approaching the site will be cleaned as necessary. A daily inspection of the road condition will be made and a roadsweeper will be employed to remove any nuisance green waste debris, dust or mud from the roads, if necessary.

Attachment F: Control & Monitoring

F.1 Treatment, Abatement and Control Systems

The following infrastructure is proposed as part of the design of the Green Waste Facility:

- Boundary walls (3m high) on two sides to prevent noise and dust migration
- Push walls and concrete storage areas
- Sprinkler system for dust suppression
- Rainwater collection system using the roof of the building will be attached to the sprinkler system
- Direction of traffic clearly labelled with appropriate signage

F.2 Air

Dust

Proposed dust monitoring locations are shown on Figure F.2.1. They are located within the facility boundary, adjacent to sensitive receptors.

Table F.2.1: Proposed Ambient Dust Monitoring Locations

Monitoring Location Ref.	Grid Ref.	Frequency of Monitoring
AD1	304095E 234543N	Twice per year
AD2	304160E 234452N	Twice per year
AD3	304109E 234435N	Twice per year
AD4	304055E 234456N	Twice per year

The proposed methodology for dust monitoring is the 'Bergerhoff' Method (German Standard Method VDI2119).

> Figure F.2.1: Proposed Dust Monitoring Locations

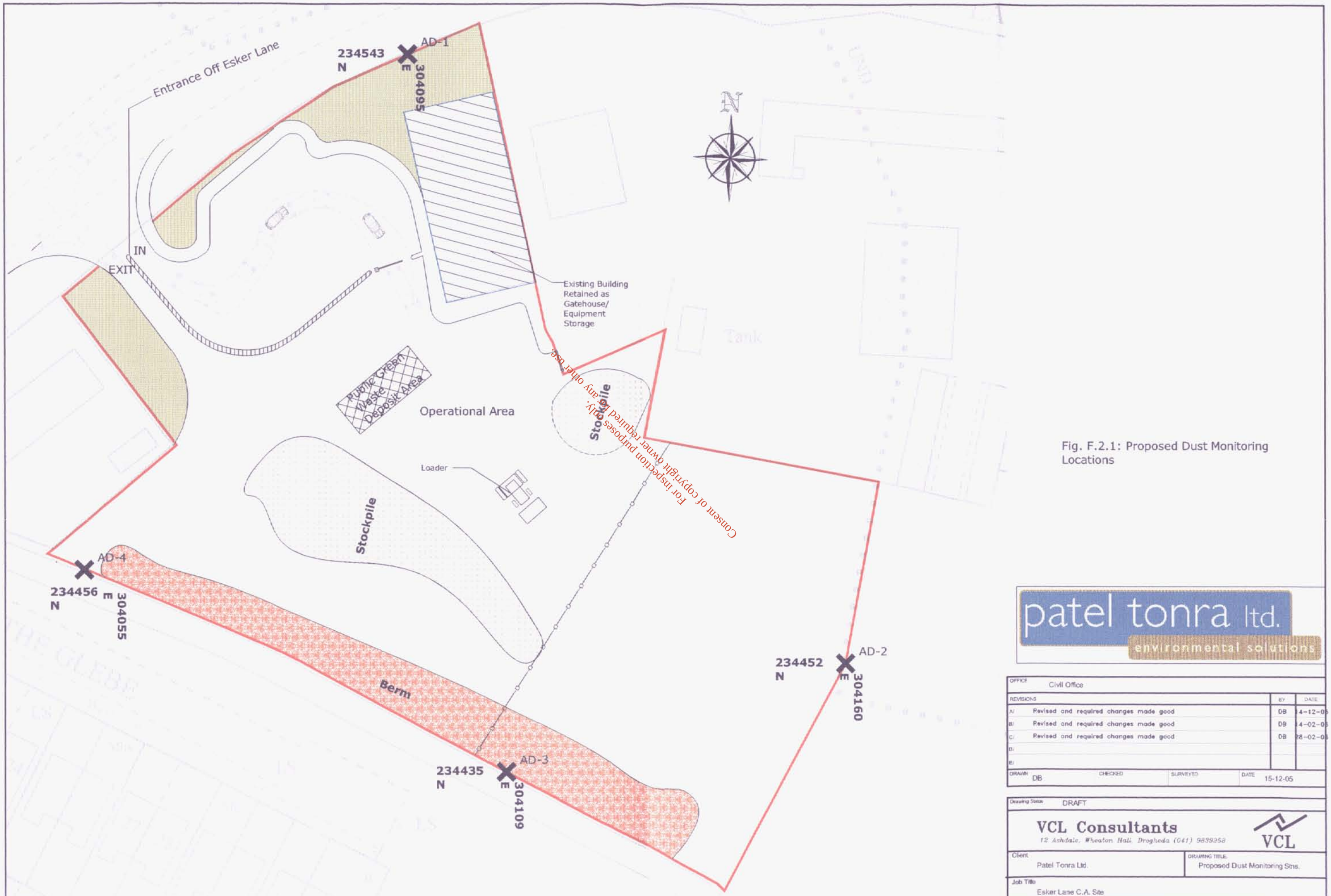

Fig. F.2.1: Proposed Dust Monitoring Locations

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REVISIONS		BY	DATE
A/	Revised and required changes made good	DB	14-12-05
B/	Revised and required changes made good	DB	14-02-06
C/	Revised and required changes made good	DB	28-02-06
D/			
E/			
DRAWN: DB	CHECKED	SURVEYED	DATE: 15-12-05

Drawing Status: DRAFT

VCL Consultants
12 Ashdale, Wheaton Hall, Drogheda (041) 9839358

VCL

Client: Patel Tonra Ltd.	DRAWING TITLE: Proposed Dust Monitoring Stns.
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No.: 25088-007

Odour

Proposed odour monitoring locations are shown on Figure F.2.2. They are adjacent to sensitive receptors.

Table F.2.2: Proposed Ambient Odour Monitoring Locations

Monitoring Location Ref.	Grid Ref.	Frequency of Monitoring
AO1	234426N 304062E	Once per week
AO2	234516N 304005E	Once per week
AO3	234516N 304005E	Once per week

The proposed methodology for odour monitoring is a 'sniff test' procedure, based on an assessment of the type and intensity of odour emanating from the facility. The 'sniff test' will record:

1. Name of Recorder
2. Date and Time
3. Time recorder last on site (must be in excess of one hour)
4. Weather conditions
5. Wind direction
6. Intensity of odour (e.g. no odour, faint odour, moderate odour, strong odour, very strong odour)
7. Description of odour origin and properties (e.g. organic decomposition, traffic fumes, household, etc.)

> Figure F.2.2: Proposed Odour Monitoring Locations

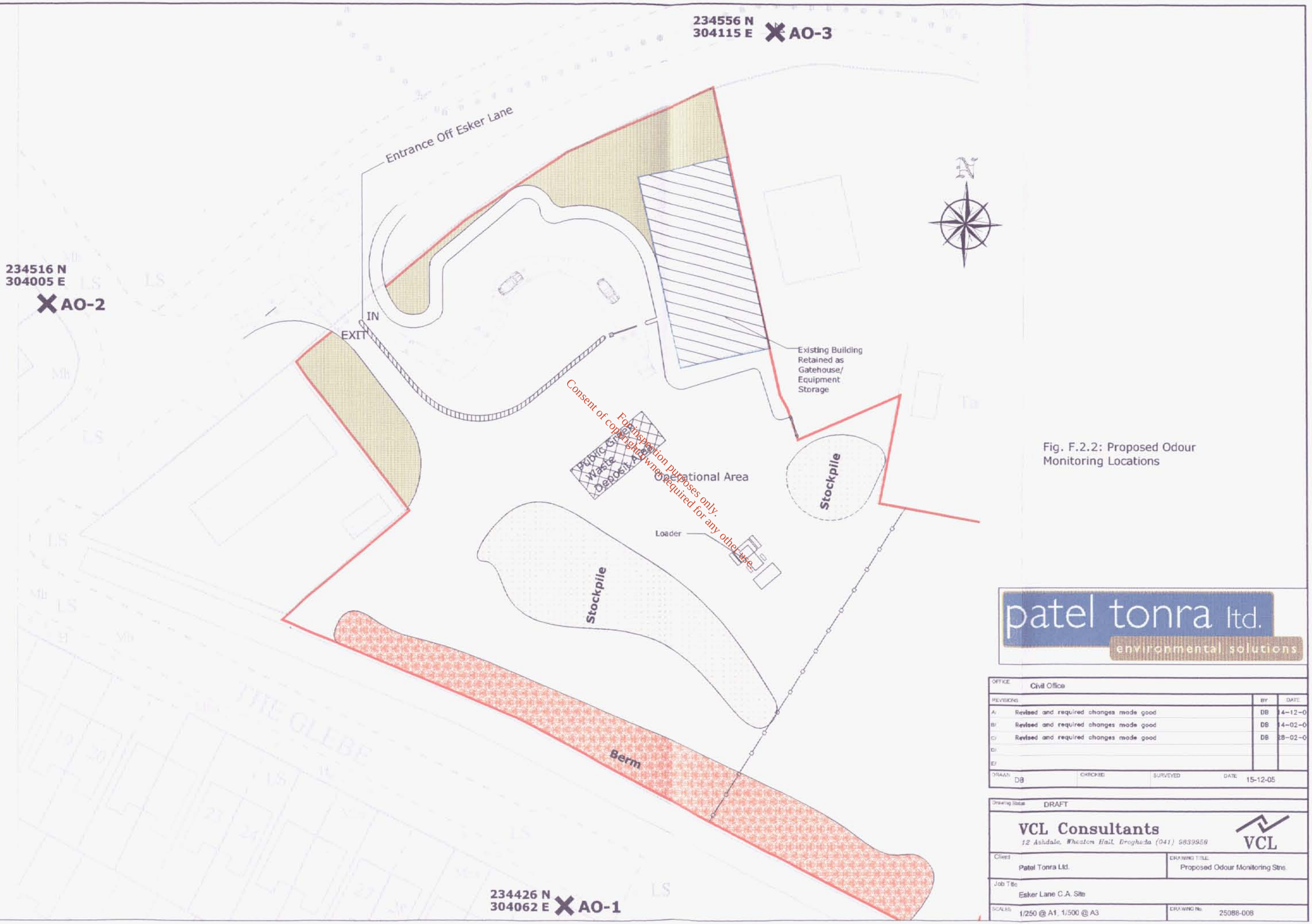

Fig. F.2.2: Proposed Odour Monitoring Locations

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OFFICE	Civil Office			
REVISIONS			BY	DATE
A/	Revised and required changes made good		DB	14-12-0
B/	Revised and required changes made good		DB	14-02-0
C/	Revised and required changes made good		DB	28-02-0
D/				
E/				
DRAWN	DB	CHECKED	SURVEYED	DATE 15-12-05

Drawing Status: DRAFT

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12 Ashdale, Wheaton Hall, Drogheda (041) 9839958

Client: Patel Tonra Ltd.	DRAWING TITLE: Proposed Odour Monitoring Stns.
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No. 25088-008

F.3 Surface Water

The proposed surface water monitoring location is shown on Figure F.3.1. It is located at a manhole in the north-west of the site. The monitoring point will be located after the proposed silt trap and oil interceptor, and directly before emission to surface water.

TableF.2.3: Proposed Surface Water Monitoring Locations

Monitoring Location Ref.	Grid Ref.	Frequency of Monitoring
SW1	304048E 234466N	Annually

The proposed methodology for surface water monitoring is grab sampling and laboratory analysis for the EPA surface water compliance suite (as per EPA Landfill Monitoring Manual).

> Figure F.3.1: Proposed Surface Water Monitoring Locations

F.4 Sewer Discharge

There is no effluent discharge to sewer (except for toilets), therefore no monitoring is proposed.

F.5 Groundwater

There are no direct emissions to groundwater. If there is evidence of contamination in surface water runoff, it may be necessary to conduct groundwater monitoring, in agreement with the Agency.

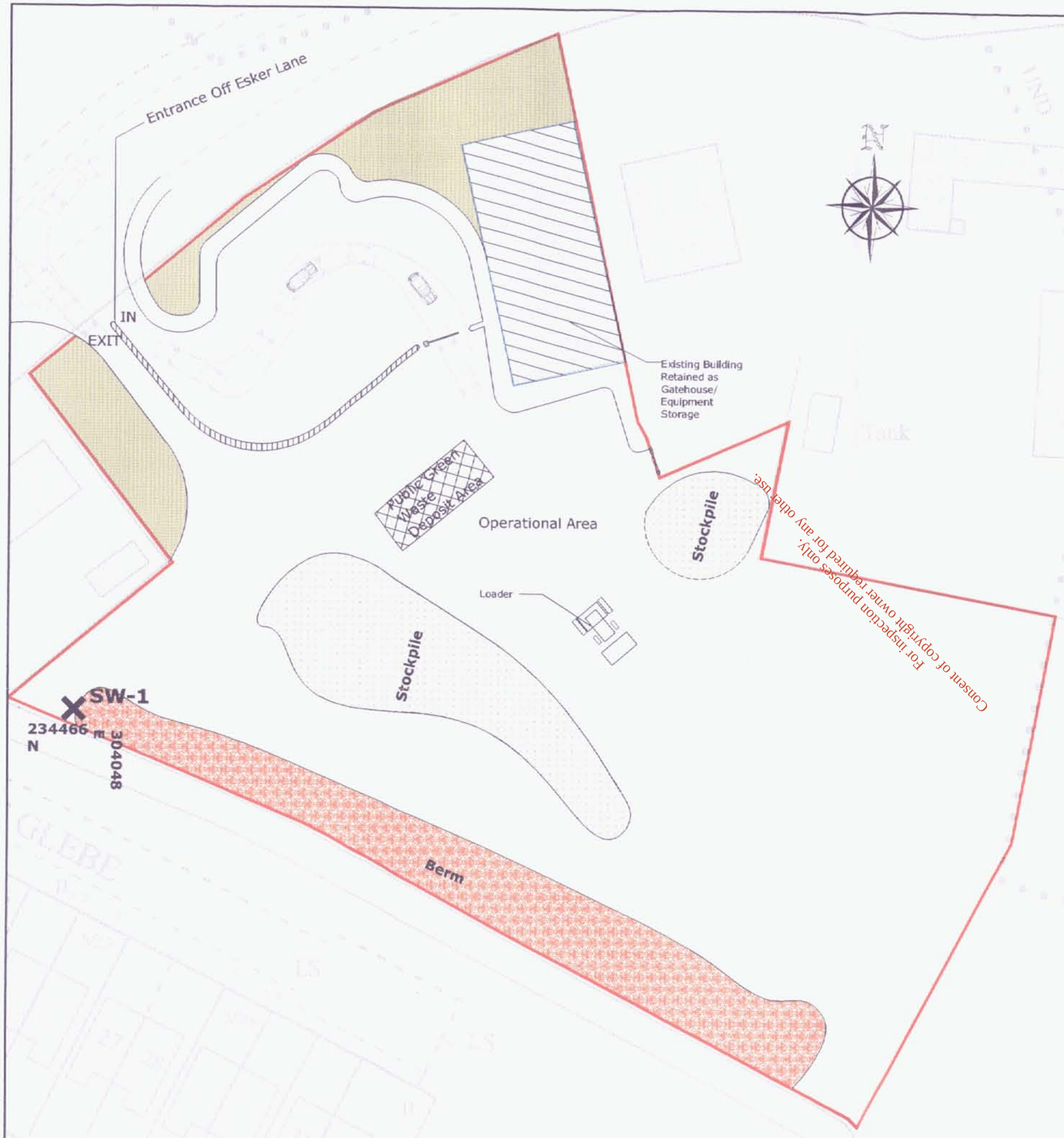

Fig. F.3.1: Proposed Surface Water Monitoring Locations

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A:	Revised and required changes made good	DB	4-12-0
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C:	Revised and required changes made good	DB	28-02-0
D:			
E:			
DRAWN	DB	CHECKED	SURVEYED
DATE	15-12-05		

Drawing Status: DRAFT

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12 Ashdale, Wheaton Hall, Drogheda. (041) 9839958

VCL

Client: Patel Tonra Ltd.	DRAWING TITLE: Proposed Surface Wtr. Monitoring Stns.
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No: 25088-009

F.6 Noise

Proposed noise monitoring locations are shown on Figure F.6.1. They are located adjacent to sensitive receptors.

Table F.6.1: Proposed Ambient Noise Monitoring Locations

Monitoring Location Ref.	Grid Ref.	Frequency of Monitoring
AN1	304115E 234562N	Annually
AN2	304161E 234465N	Annually
AN3	304082E 234428N	Annually
AN4	304007E 234518N	Annually

> Figure F.6.1: Proposed Noise Monitoring Locations

F.7 Meteorological Data

Daily visual inspection of wind force and direction will be carried out to ensure that operations are controlled if weather conditions would cause nuisance to neighbours. It is proposed to install a windsock at the facility so that site operatives can visually assess the wind direction and force. (See Drawing D.1.1)

It is proposed that a daily record of representative meteorological data will be obtained from Met Eireann at Dublin Airport.

F.8 Leachate

Not applicable.

F.9 Landfill Gas

Not applicable.

Fig. F.6.1: Proposed Noise Monitoring Locations

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OFFICE	Civil Office			
REVISIONS			BY	DATE
A:	Revised and required changes made good		DB	14-12-05
B:	Revised and required changes made good		DB	14-02-06
C:	Revised and required changes made good		DB	28-02-06
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E:				
DRAWN	DB	CHECKED	SURVEYED	DATE 15-12-05

Drawing Status: DRAFT

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12 Ashdale, Wheaton Hall, Drogheda (041) 9839958

VCL

Client: Patel Tonra Ltd.	DRAWING TITLE: Noise Monitoring Stns.
Job Title: Esker Lane C.A. Site	
SCALES: 1/500 @ A1, 1/1000 @ A3	DRAWING No. 25088-010

Attachment G: Resources Use & Energy Efficiency

G.1 Raw Materials, Substances, Preparations and Energy

There is a 1,000-litre double-skinned tank on site, which is used as diesel fuel storage by on-site contractors.

Rat poison has been laid on-site by a specialist contractor.

There are no insecticides/pesticides or other harmful substances stored on site.

Water will be harvested from the roof of the building on site for use in the sprinkler system

G.2 Energy Efficiency

No energy audits have been undertaken at the site. Energy is used in the form of:

- Diesel for site machinery (contractor-controlled)
- Electricity for energy in buildings

A record of energy used by SDCC at the facility will be retained and submitted to the Agency as part of the Annual Environmental Report.

Attachment H: Materials Handling

H.1 Waste Types and Quantities - Existing and Proposed

Esker Lane is currently permitted (under EPA Certificate of Registration No. R261) to accept up to 5,000 tonnes per annum of green waste.

With the issue of a Waste Licence, it is proposed to accept up to 20,000 tonnes per annum of green waste, which will comprise both commercial and domestic users.

H.2 Waste Acceptance Procedures

The Waste Acceptance procedure is outlined in Section D.2.1.

H.3 Waste Handling

Waste handling and processing equipment used on site include 4 No. waste handling machines (front end loaders and telescopic loader). The majority of the machines are contractor-owned and operated.

Green waste will be handled and stored with a view to minimising potential environmental impacts, including dust, noise and odour.

H.4 Waste Arisings

There will be no waste arisings associated with contaminated soil applications. There will be small volumes of municipal-type waste generated by the office environment, which will be disposed of by a permitted haulier, to a licensed facility.

Attachment I: Existing Environment & Impact of the Facility

I.1 Assessment of atmospheric emissions

Dust

1.0 Executive Summary

1.1 South Dublin County Council (SDCC) Parks & Landscape Services Department operates a Green Waste Facility at Esker, Lucan, Co. Dublin. Members of the public are encouraged to bring various items of green waste to the centre. It is then removed off site for shredding and composting. The composted material is used by the Parks Department in various planting schemes throughout the County, and is available for sale to the public and contractors.

1.2 The Green waste facility at Esker Lane is registered with the Environmental Protection Agency (EPA) under Certificate of Registration Number R261, dated 8th February 2000.

1.3 There are a number of sensitive receptors in and around the facility including:

- Site staff and contractors
- Residents of The Glebe and Esker Lane
- Primary School pupils and staff
- Secondary School (under construction)

1.4 Dust deposition was monitored at four locations within the site between the 18th November and 19th December 2005 (see Figure 1, Monitoring Locations).

1.5 The dust deposition concentrations measured at all positions at the site were significantly below the general EPA limit of 350 mg/m^2/day for licensed waste facilities.

2.0 Introduction

2.1 This report details the dust monitoring events which took place at Esker, Green Waste Facility in Lucan, Co. Dublin for 30 days between the 18th November and 19th December 2005, including the sampling and analytical methods used. This report also includes an interpretation of the results obtained.

2.2 Dust emissions may potentially be generated by the following site activities:

- Depositing of green waste by members of the public
- Shredding of green waste (This activity has since ceased, and is currently conducted off-site).
- Storage of green waste.
- Loading operations
- Vehicle movements (public and transfer vehicles)

Dust Particle Size

2.3 Dust particle size is important in determining the way in which these particulates move through the air. When dust particles are released to air they have a tendency to fall back to ground at a rate that is proportional to the particulate size, this effect is known as the settling velocity. Fine dust particles may have the potential to disperse over an extensive area but it is usually the larger particulates which cause most nuisance. The main reason for larger particles being perceived to be a greater nuisance is that

- They are more visible to the naked eye
- They are the particulates which more readily settle out of suspension

2.4 For this reason deposition monitoring for nuisance dusts concentrates mainly on dust particles of 20 microns and above.

Monitoring Locations

2.5 The dust monitoring locations are listed in Table I.1.1 below and illustrated in the attached drawing, see Figure I.1.1.

> Figure I.1.1: Dust Monitoring Locations, Nov-Dec 2005

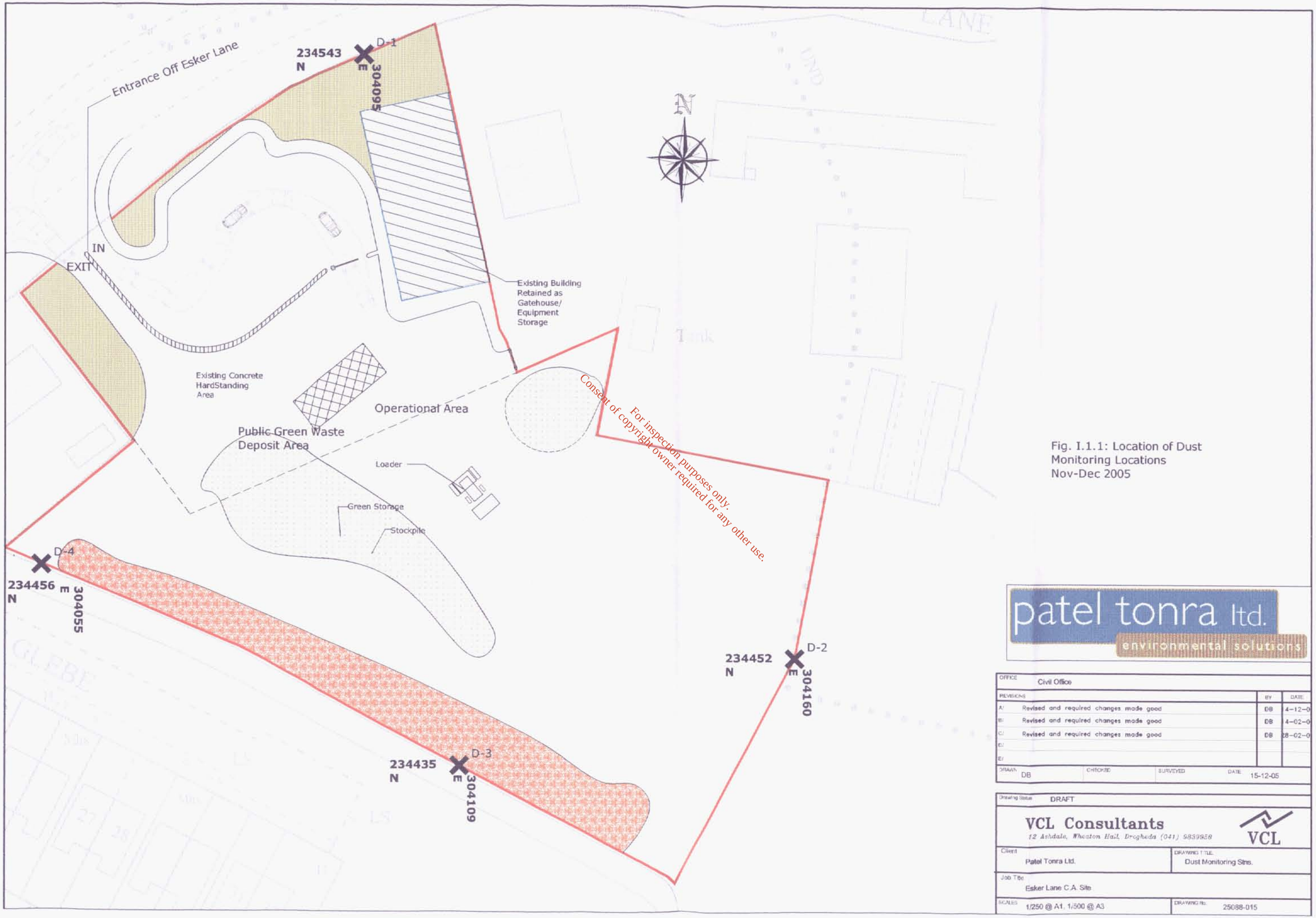

Fig. I.1.1: Location of Dust Monitoring Locations Nov-Dec 2005

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A/	Revised and required changes made good		DB	4-12-0
B/	Revised and required changes made good		DB	4-02-0
C/	Revised and required changes made good		DB	28-02-0
D/				
E/				
DRAWN DB	CHECKED	SURVEYED	DATE 15-12-05	

Drawing Status: DRAFT

VCL Consultants
12 Ashdale, Wheaton Hall, Drogheda (041) 9839958
VCL

Client: Patel Tonra Ltd.	DRAWING TITLE: Dust Monitoring Stns.
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No. 25088-015

Table I.1.1: Dust Monitoring Locations

Dust Station	Location
D1	Within site – north east – approx. 35m from residential dwellings in Esker Lane
D2	Within site – east – approx. 25m from boundary of Scoil Naomh Pardraig, primary school
D3	Within site – south – approx 30m from the houses at no. 31 & 32 Esker Glebe
D4	Within site – west - approx 30m from houses at no. 23 & 24 Esker Glebe, the closest residential receptors to the site

3.0 Methodology

3.1 Dust deposition monitoring was carried out between the 18th of November and the 19th of December 2005.

3.2 The type of dust deposition gauge used was the Bergerhoff dust gauge which was exposed over a 30-day period to collect bulk dust deposition. The method employed is based on the German Standard Method VDI 2119 and collects total particulate matter. The apparatus consists of a collection vessel with an open mouth of 90 mm diameter with a collection sample bottle of 5 litres volume supported on a stand of approximately 1.5 metres high. The gauges were located at four positions as outlined in Figure D.1.1.

3.3 The gauges were left for a period of 30 days. When the sample period had elapsed the sample bottles were checked for the presence of any unusual deposits such as leaves or insects and these were removed before analysis of the samples took place.

3.4 The samples collected were then transferred to Alcontrol Laboratories for gravimetric analysis to determine the concentration of deposit material in each gauge bottle.

Plate I.1.1: Dust Bottle

The dust bottle used as part of the Bergerhoff Dust Deposition Gauge; note the neck of the dust bottle has a diameter of 90 mm.

Plate I.1.2: Bergerhoff Dust Gauge

The Bergerhoff Dust Gauge apparatus as used to measure the level of dust deposition.

4.0 Results

4.1 Results obtained from the laboratory were expressed as total milligrams of dust per sample (mg/sample), for each of the monitoring points D1 to D4. The results were subsequently converted to mg/m^2/day using the appropriate calculations based on a 30-day monitoring period. Results are listed in Table I.1.2.

Table I.1.2: Environmental Dust Monitoring Results at Esker Lane Green Waste Facility

Dust Station	Location	Grid Reference	Dust (mg/m^2/day)	EPA Limit for Dust at Licensed Waste Facilities (mg/m^2/day)
D1	Within site – north east – approx. 35m from residential dwellings in Esker Lane	304095E 234543N	110	350
D2	Within site – east – approx. 25m from boundary of Scoil Naomh Padraig, primary school	304160E 234452N	63	350
D3	Within site – south – approx 30m from the houses at no. 31 & 32 Esker Glebe	304109E 234435N	31	350
D4	Within site – west - approx 30m from houses at no. 23 & 24 Esker Glebe, the closest residential receptors to the site	304055E 234456N	31	350

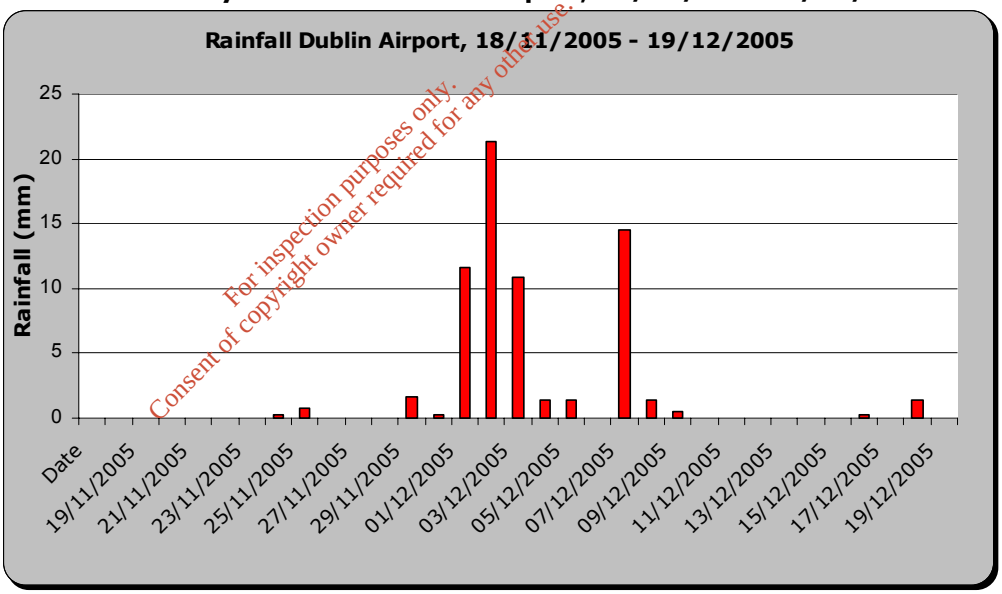
4.2 The EPA sets a general limit for dust deposition of 350mg/m^2/day at licensed waste facilities (although this site is not currently subject to such an emission limit). The dust deposition concentrations at all monitoring locations were below 350 mg/m^2/day.

5.0 Analysis

Weather Conditions

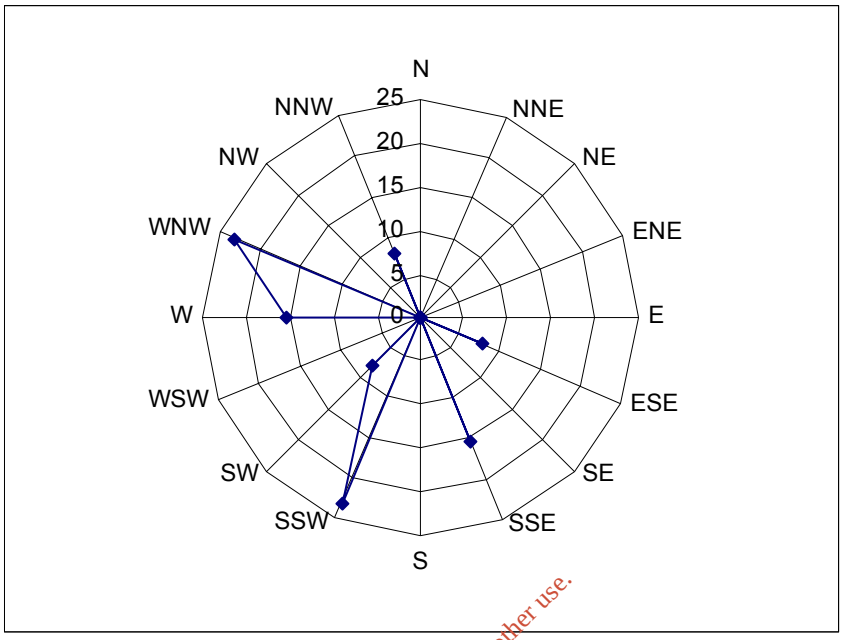
5.1 The monitoring took place between 18th of November and 19th of December 2005. Rainfall amounts for the period, from data collected at Dublin Airport, are shown graphically in Chart I.1.1 below. The total rainfall for the monitoring period was 67.6mm. 9 days were recorded with rainfall greater than 1 mm and 4 days recorded greater than 5mm. The wettest day was the 2nd of December when a total of 21.4mm of rainfall was recorded. Rainfall amounts for the period were comparable to average rainfall for November/December. The 30-year average (1961-1990) gives a mean monthly total for rainfall in November of 64.7 mm and 75.6 mm in December.

Chart I.1.1 : Daily Rainfall at Dublin Airport, 18/11/05 – 19/12/05



5.2 From data collected by Met Eireann at Dublin Airport, wind direction during the monitoring period was variable. Winds were predominantly from a west-north- westerly and south-south-westerly direction. A wind rose for the November monitoring period is shown in Chart I.1.2 below (Met Eireann data for December was not available at the time of print).

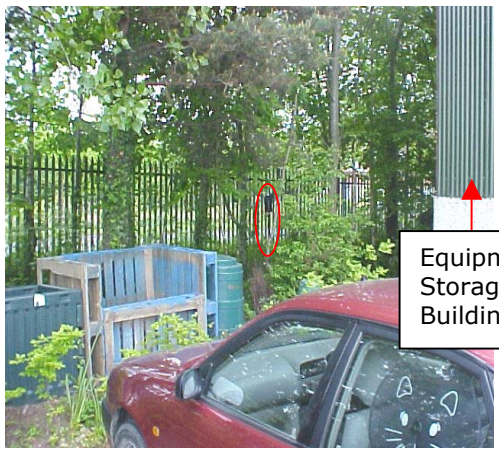
Chart I.1.2: Mean Wind Direction at Dublin Airport, 18/11/05 – 30/11/05



Dust Monitoring Point D1

5.3 D1 is located behind the equipment storage building in the north east of the site, as shown in plate I.1.3 and I.1.4. There are residential dwellings along Esker Lane approximately 35m from the position of the gauge.

Plate I.1.3 & I.1.4: Dust Monitoring Location D1



5.4 This northern perimeter of the site is bounded by trees. This monitoring point was chosen in order to gauge dust generation associated with road traffic on Esker Lane. It is relatively isolated from site activities. It is also possible that adjacent trees impacted on the dust gauge at this point.

5.5 Dust levels during the monitoring period were the highest observed on the site at 110 mg/m^2/day. This was however significantly lower than the general EPA limit of 350 mg/m^2/day for licensed facilities.

Dust Monitoring Point D2

5.6 D2 was located in the east of the site, approximately 25m from the boundary of Scoil Naomh Padraig, a primary school, as shown in plates I.1.5 and I.1.6.

Plate I.1.5 & I.1.6: Dust Monitoring Location D2

5.7 Dust at this point is likely to have been generated by vehicle movements, shredding, (this activity has since ceased) loading and storage of green waste. There was also a construction site immediately to the rear of the Green Waste Facility, where a new secondary school is being built.

5.8 Dust levels during the monitoring period were observed on the site at 63 mg/m^2/day. This was significantly lower than the general EPA limit of 350 mg/m^2/day for licensed facilities.

Dust Monitoring Point D3

5.9 D3 was located in the south west of the site, as shown in Plate I.1.7 and I.1.8. The nearest residential dwellings are approximately 30m from the position of the gauge, at No. 31 and 32 The Glebe.

Plates I.1.7 & I.1.8: Dust Monitoring Location D3

5.10 Dust at this point is likely to have been generated by vehicle movements, shredding, (this activity has since ceased) loading and storage of green waste.

5.11 Dust levels during the monitoring period were found to be 31mg/m^2/day. This was notably lower than the EPA general limit of 350 mg/m^2/day for licensed facilities.

Dust Monitoring Point D4

5.12 D4 was located in the west of the site, as shown in Plate I.1.9 and I.1.10. The nearest residential dwellings are approximately 30m from the position of the gauge, at numbers 23 and 24 The Glebe. These are the closest residents to the facility.

Plates I.1.9 & I.1.10: Dust Monitoring Location D4

5.13 Dust generation in this area is associated with vehicle movements, deposition, shredding, (this activity has since ceased) loading and storage of green waste and compost.

5.14 Dust levels during the monitoring period were found to be 31mg/m^2/day. This was notably lower than the general EPA limit of 350 mg/m^2/day for licensed facilities.

6.0 Conclusion

6.1 Dust measured at Esker Lane, Green Waste Facility during November-December 2005 was below the EPA general limit for dust at licensed waste facilities.

6.2 The dust level at D1 (110 mg/m^2/day) in the north east of the site was the highest recording of dust for the monitoring period, but is still significantly lower than the general EPA limit of 350 mg/m^2/day for licensed facilities.

6.3 The lowest level of dust was recorded at D3 and D4. This was calculated to be 31 mg/m^2/day, which is significantly under the general EPA limit of 350 mg/m^2/day for licensed waste facilities.

6.4 On the basis of results received, the impact on dust generation from the green waste facility was regarded as insignificant during the monitoring period.

Odour

1.0 Executive Summary

1.1 An odour assessment was carried out by Doug Corrie and Carla McKenna of Patel Tonra Ltd. on the 18th of November 2005 at the Esker Lane Green Waste Facility, Lucan, Co. Dublin. On the basis of results obtained, an additional odour assessment was undertaken by Doug Corrie on the 19th of December 2005, to investigate odour impact at nearby residential receptors.

1.2 The objective of the assessment was to determine the level and type of odour emissions from the facility, and any impact on sensitive receptors.

1.3 A "sniff test" was performed, based on guidance from the UK Environment Agency.

1.4 The Esker Lane Green Waste Facility is located in a primarily residential area. There are a number of potential receptors in close proximity to the facility, including residents on The Glebe at a distance of 26m, a primary school, and a new secondary school which is currently being developed. There is an additional residential area on Esker Lane to the north east of the site, at a distance of *ca.* 40m from the facility.

1.5 During monitoring, odour was detected within the facility boundary, with one perceived faint odour impact on sensitive receptors, located to the north east of the facility on Esker Lane (*ca.* 40m from the facility).

1.6 The nature of the odour within the facility boundary was regarded as potentially offensive.

2.0 Introduction

2.1 An odour assessment was carried out by Doug Corrie and Carla McKenna of Patel Tonra Ltd. on the 18th of November 2005 at the Esker Lane Green Waste Facility, Lucan, Co. Dublin, and an additional assessment was conducted by Doug Corrie on the 19th of December 2005.

2.2 The objectives of the odour assessment were to:

- Determine if odour emissions were generated by site activities, and
- To predict the exposure of sensitive receptors to odour emissions from the facility.

2.3 UK Environment Agency documents referenced for the purpose of the odour assessment were:

(a) Best Available Techniques for Assessment and Control of Odour. R&D Technical Report P4-079/TR/2 (July 2002)

(b) Integrated Pollution Prevention and Control (IPPC) Draft Horizontal Guidance for Odour, Part 1 – Regulation and Permitting. Technical Guidance Note IPPC H4 (October 2002)

(c) Integrated Pollution Prevention and Control (IPPC) Draft Horizontal Guidance for Odour, Part 1 – Assessment and Control. Technical Guidance Note IPPC H4 (October 2002)

(d) Odour Guidance. Internal Guidance for the Regulation of Odour at Waste Management Facilities. Version 3.0. (July 2002)

3.0 Site Location and Background

3.1 South Dublin County Council (SDCC) Parks & Landscape Services Department operates a Green Waste Facility at Esker Lane, Lucan, Co. Dublin. Members of the public are encouraged to bring various items of green waste to the centre for off-site composting. This composted material is used by the Parks Department in various planting schemes throughout the County, and is available for sale to the public and contractors.

3.2 At the time of the odour survey, members of the public were depositing green waste at the facility. Storage of green waste and storage of small amounts of composted material along with loading operations, were all occurring.

4.0 Potential Odour Sources

4.1 Green wastes have the potential for odour generation. Freshly processed material smells of grass, vegetation and resinous odours depending on the type of vegetation being shredded. The potential for the generation of unpleasant odours associated with green waste may occur when the waste is stockpiled for long periods undisturbed and is associated with anaerobic (without oxygen) decomposition.

4.2 Potential sources of odours arising from green waste management activities at the site relate to:

- Delivery and unloading of the green waste material
- Stockpiling, shredding (this activity has since ceased) and loading of materials
- Anaerobic conditions in piles

4.3 There are potential or actual external odour sources at or adjacent to the site, including:

- Water pumping station immediately to the north-west of the site. This was not a perceived nuisance at the time of monitoring, however site staff reported that this can be a major odour source at certain times and under certain conditions.
- Vehicular traffic fumes from Esker Lane.
- Construction works to the south-east of the site.
- Activities at the neighbouring depot to the east of the facility.
- Other potential neighbouring activities, e.g. periodic burning.

4.4 The point at which an odorous emission is perceived as an actual odour annoyance is difficult to pinpoint or measure; it involves a number of factors such as the character of the odour, dilution in the atmosphere and factors relating to the location and sensitivity of the receptors.

5.0 Methodology

(Source: UK Environmental Agency, See reference documents in Section 2)

5.1 In general, odour can be measured in terms of:

- "Analytical" or "chemical" techniques: involves the use of a portable analyser or the collection of sample, which, when analysed, will give the concentration of the various chemical species present.
- "Sensory" methods: gives an assessment of the physiological response to a particular mixture – strength, quality, characteristics – which provides information on the likely population response. This is obtained by exposing trained individuals to samples of the odourous air, either in the laboratory or in the field.

5.2 At the Esker Lane facility, a relatively straightforward impact assessment was conducted, based on assessing current odour emissions via a series of "sniff tests", and an evaluation of the qualitative estimation of the risk.

5.3 The objective of simplified olfactometry (sniff testing) is to provide a subjective assessment of a source either at, or close to the source, at or beyond the installation boundary, or at any point in the community, and to determine if possible:

- whether or not the emissions from the installation or process are detectable
- the nature of the odour and whether "offensive"
- the source of the offensive odours, if this is not immediately apparent.

5.4 Sniff testing was conducted with reference to Appendix 8 – Protocol for subjective testing ("sniff-testing") of Part 1 of the Environmental Agency's IPPC Guidance for Odour.

5.5 The sniff test was performed while walking downwind of the facility, starting outside the site and walking towards the site. The personnel carrying out the odour check did so prior to arriving on-site that day or after having been off-site for at least one hour.

5.6 Time, wind direction, location of monitoring and findings were all recorded as part of this monitoring. The observation period was five minutes at each location. Activities being undertaken at the site at that time were noted.

6.0 Monitoring Locations

6.1 Odour was monitored at a total of seven locations, four inside the facility boundary designated as O1, O2, O3 and O4 and three outside the facility boundary at the nearest sensitive receptors, designated as O5, O6 and O7. These locations are shown on the attached drawing (see Figure I.1.2).

O1 Within the site, to the north east, approximately 30m from residential dwellings on Esker Lane.

O2 Within site, to the east, approximately 20m from the boundary of a primary school (Scoil Naomh Padraig).

O3 Within the site to the south, approximately 30m from the houses at no. 31 and 32, The Glebe.

O4 Within the site to the west, approximately 30m from the houses at no. 23 and 24, The Glebe, the closest residential receptors to the site.

O5 Outside the facility boundary to the north east, located on Esker Lane, approx. 30m from the facility boundary

O6 Outside the facility boundary to the south-west, located in the residential estate "The Glebe" at house no. 23-24, *ca.* 26m from the facility boundary.

O7 Outside the facility boundary to the south, located in the residential estate "The Glebe" at house no. 31-32, *ca.* 27m from the facility boundary.

> Figure I.1.2: Odour Monitoring Locations, Nov-Dec 2005

7.0 Weather Conditions

7.1 Weather data for Dublin Airport for 18th November 2005 were as follows:

- Rainfall (mm) 0
- Temp Max (deg C) 10.3
- Temp Min (deg C) 4.9
- Sunshine (hours) 1.4
- Gusts (knots) 0
- Windspeed (knots) 10.5

(Source: Met Eireann)

7.2 Local wind conditions were noted as a westerly wind direction with a "gentle breeze" as indicated by the Beaufort Wind Scale, i.e. in the range 12 – 19 km/hour (6.5 – 10 knots).

7.3 Weather data for Dublin Airport for 19th December 2005 were as follows:

- Rainfall (mm) 0
- Temp Max (deg C) 7.8
- Temp Min (deg C) 3.2
- Sunshine (hours) 1.0
- Gusts (knots) 0
- Windspeed (knots) 7.2

(Source: Met Eireann)

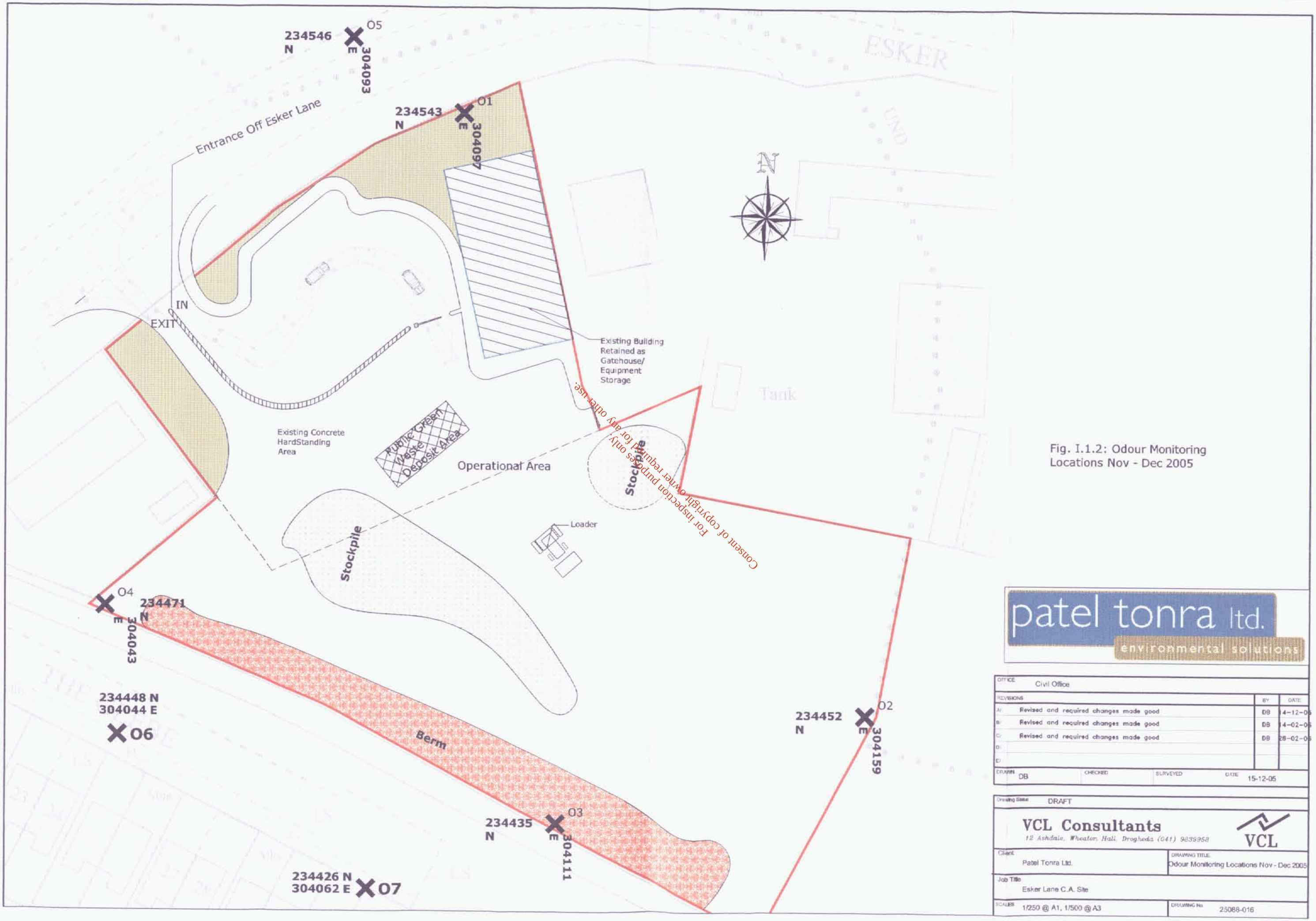


Fig. I.1.2: Odour Monitoring Locations Nov - Dec 2005

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OFFICE	Civil Office			
REVISIONS			BY	DATE
A:	Revised and required changes made good		DB	14-12-05
B:	Revised and required changes made good		DB	14-02-06
C:	Revised and required changes made good		DB	28-02-06
D:				
E:				
DRAWN	DB	CHECKED	SURVEYED	DATE 15-12-05

Drawing Status: DRAFT

VCL Consultants
12 Ashdale, Wheaton Hall, Drogheda (041) 9839958

Client: Patel Tonra Ltd.	DRAWING TITLE: Odour Monitoring Locations Nov - Dec 2005
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No: 25088-016

8.0 Assessment Findings

8.1 The categories of intensity, extent and sensitivity applied were (Source: UK Environment Agency):

DETECTABILITY / INTENSITY

1	No detectable odour
2	Faint odour (barely detectable, need to stand still and inhale facing into the wind)
3	Moderate odour (odour easily detected while walking & breathing normally)
4	Strong odour
5	Very strong odour (possibly causing nausea)

EXTENT & PERSISTENCE (assuming odour detectable, if not then 0)

1	Local & transient (only detected on installation or at installation boundary during brief periods when wind drops or blows)
2	Transient as above, but detected away from installation boundary
3	Persistent, but fairly localised
4	Persistent and pervasive up to 50m from plant or installation boundary
5	Persistent and widespread (odour detected >50 m from installation boundary)

SENSITIVITY OF LOCATION WHERE ODOUR DETECTED (assuming detectable, if not then 0)

1	Remote (no housing, commercial/industrial premises or public area within 500m)
2	Low sensitivity (no housing, etc. within 100m of area affected by odour)
3	Moderate sensitivity (housing, etc. within 100m of area affected by odour)
4	High sensitivity (housing, etc. within area affected by odour)
5	Extra sensitive (complaints arising from residents within area affected by odour)

OFFENSIVENESS:
The assessment of the offensiveness of odour is necessarily based upon the subjective sensory olfactory response of an observer. Determination of offensiveness depends upon intensity in addition to character, frequency of exposure and persistence (see below).

The determination of whether the odour is "offensive" should be made on the basis that episodes of odour exposure in the locality could be frequent and persistent. The determining officer may be exposed for a few minutes only but the determination needs to take into account the likely long-term response of nearby receptors who may be exposed on a regular basis.

Clearly, some odours are more offensive than others but it should be remembered that any odour has the potential to be offensive, depending upon factors such as concentration, duration and frequency of exposure, the context within which the exposure takes place and other factors unique to the individual exposed. The

instantaneous impression may be of a relatively inoffensive odour but regular exposure, particularly at high concentration, often leads to a change in perception.

The following matters should be considered when determining the degree of potential offence:

Nature/character - odours that would be generally accepted as 'unpleasant' will be potentially offensive. For example, odours from an oil refinery would generally be accepted as unpleasant in comparison to odour from, for example, a bakery. The strength of an odour referenced to its detection threshold can be quantified and the higher the odour strength, the more the likelihood of an odour being detected.

Frequency of exposure - odours that are released frequently or continuously from the installation are more likely to be determined to be offensive than occasional transient releases. Odour frequency is often assessed in conjunction with persistence in the environment.

Persistence - odours which persist in the environment for a long period after release (that is: do not readily disperse to a level where the odour is no longer detected) are more likely to be judged as offensive. Less unpleasant odours may be offensive if the releases are continuous or frequent and persistent. The persistence of an odour is also affected by the meteorological conditions.

1	Potentially offensive
2	Moderately offensive
3	Very offensive

8.2 Details of the odour assessment are outlined below:

Client: SDCC

Date: 18/11/05

Site: Esker Lane

Time: 1:30pm

Project No: SD0102

Weather Conditions: Calm, slight wind

Consultant: DC/CMK

Wind Direction: Westerly

Monitoring Location	**Time**	**Intensity 1 - 5**	**Extent 1 – 5**	**Sensitivity 1 - 5**	**Offensiveness 1 - 3**	**Sources within the installation** (potential or actual)	**External sources** (i.e. potentially confounding sources/ factors)
O1	1.30	3	3	3	2	Actual odour sources - Green waste deposited by users; surrounding trees and vegetation; traffic fumes from vehicles entering the facility	Traffic fumes from Esker Lane
O2	2.00	2	1	3	1	Actual odour sources - Storage of green waste Potential odour source – traffic fumes from site equipment	None
O3	1.50	3	3	3	2	Actual odour sources - Storage of green waste Potential odour source – traffic fumes from site equipment	None
O4	1.40	4	3	3	2	Actual odour sources - Storage of green waste; traffic fumes from vehicles using the facility Potential odour source – traffic fumes from site equipment	None

Client: SDCC

Date: 19/12/05

Site: Esker Lane

Time: 1:00pm

Project No: SD0102

Weather Conditions: Calm, dry

Consultant: DC

Wind Direction: No wind

Monitoring Location	Time	Intensity 1 - 5	Extent 1 – 5	Sensitivity 1 - 5	Offensiveness 1 - 3	**Sources within the installation** (potential or actual)	**External sources** (i.e. potentially confounding sources/ factors)
O1	1.00	3	3	3	1	Actual odour sources - Green waste deposited by users; surrounding trees and vegetation; traffic fumes from vehicles entering the facility	Traffic fumes from Esker Lane
O2	1.10	2	1	3	1	Actual odour sources - Storage of green waste Potential odour source – traffic fumes from site equipment	None
O3	1.20	3	3	3	1	Actual odour sources - Storage of green waste Potential odour source – traffic fumes from site equipment	None
O4	1.30	1	1	3	1	Actual odour sources - Storage of green waste; traffic fumes from vehicles using the facility Potential odour source – traffic fumes from site equipment	None
O5	1.40	1	2	4	1	Located outside the site to the north east on Esker Lane (*ca.* 30m from the facility) – actual sources of green waste odour from the facility	Traffic
O6	1.50	0	0	4	1	Located outside the site to the west at Nos. 23-24, The Glebe (*ca.* 26m from the facility) – potential sources of green waste odour from the facility	Traffic fumes
O7	2.00	0	0	4	1	Located outside the site to the south-west at 31-32, The Glebe – potential sources of green waste odour from the facility	Smoke – not from site

8.3 Where odour was detected it was described as a "woody" smell, which would generally be perceived as quite inoffensive.

9.0 Conclusions

9.1 A localised moderate odour was detectable within the facility boundary. This odour was regarded as inoffensive, and was described as a "woody" odour.

9.2 A faint to moderate smell was present at the boundary. When assessed outside the facility, at the location of sensitive receptors, however, no odour was detectable at 2 of the 3 monitoring locations.

9.3 A faint odour was evident at sensitive receptor O5, located on Esker Lane to the north-east of the facility. The source of this odour was recorded as a mixture between traffic on Esker Lane, and odours associated with the operation of the green waste facility. Correspondingly, the closest monitoring location to O5 within the site – O1 – also recorded a moderate odour from green waste and traffic fumes.

9.4 Therefore it can be concluded that, during the monitoring period, there was a faint odour impact on site neighbours to the north-east of the facility, arising from traffic fumes and the operation of the green waste facility at Esker Lane, which may be perceived as "possibly offensive".

I.2 Assessment of impacts of surface water discharges on the receiving waters

Surface water on the site drains to a channel along the western boundary. It enters the adjacent Pumping Station via a manhole located in the north-western corner of the site. There is no direct discharge to the Griffeen River, which flows approximately 100m from the site, at its closest point, however an upstream and downstream sample were taken for background purposes. There are no other direct emissions to surface water.

The following surface water samples were taken:

1. SW1, sampled from the Griffeen River; upstream of the Esker Lane site (access via Griffeen Valley Park). Approximately 250-300m from the Esker Lane site.

2. SW2, sampled from the Griffeen River; downstream of the Esker Lane site (access adjacent to Esker Lane). Approximately 150m from the Esker Lane site.

3. SW3, a storm-water sample taken from a manhole located in the north-western corner of the Esker Lane site.

A drawing (Figure I.2.1) showing the location of these points is attached.

> Figure I.2.1: Location of Surface Water Points Sampled

Plate I.2.1: Surface Water Monitoring Point, SW1

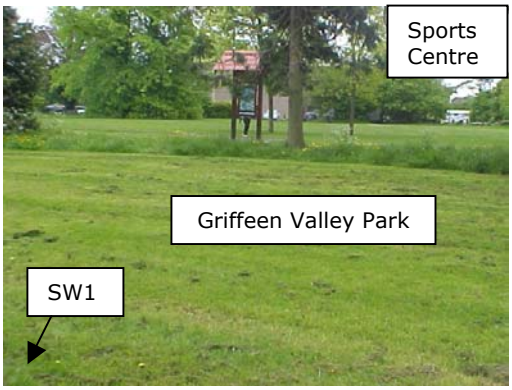
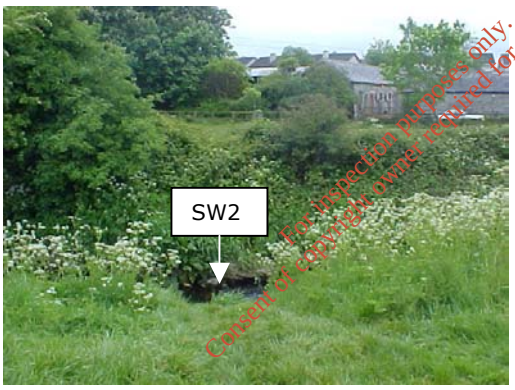
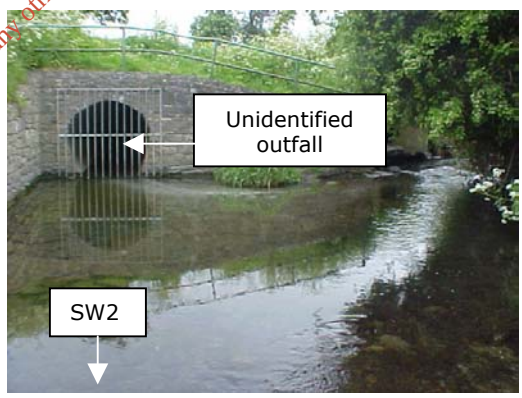


Plate I.2.2: Surface Water Monitoring Point, SW2





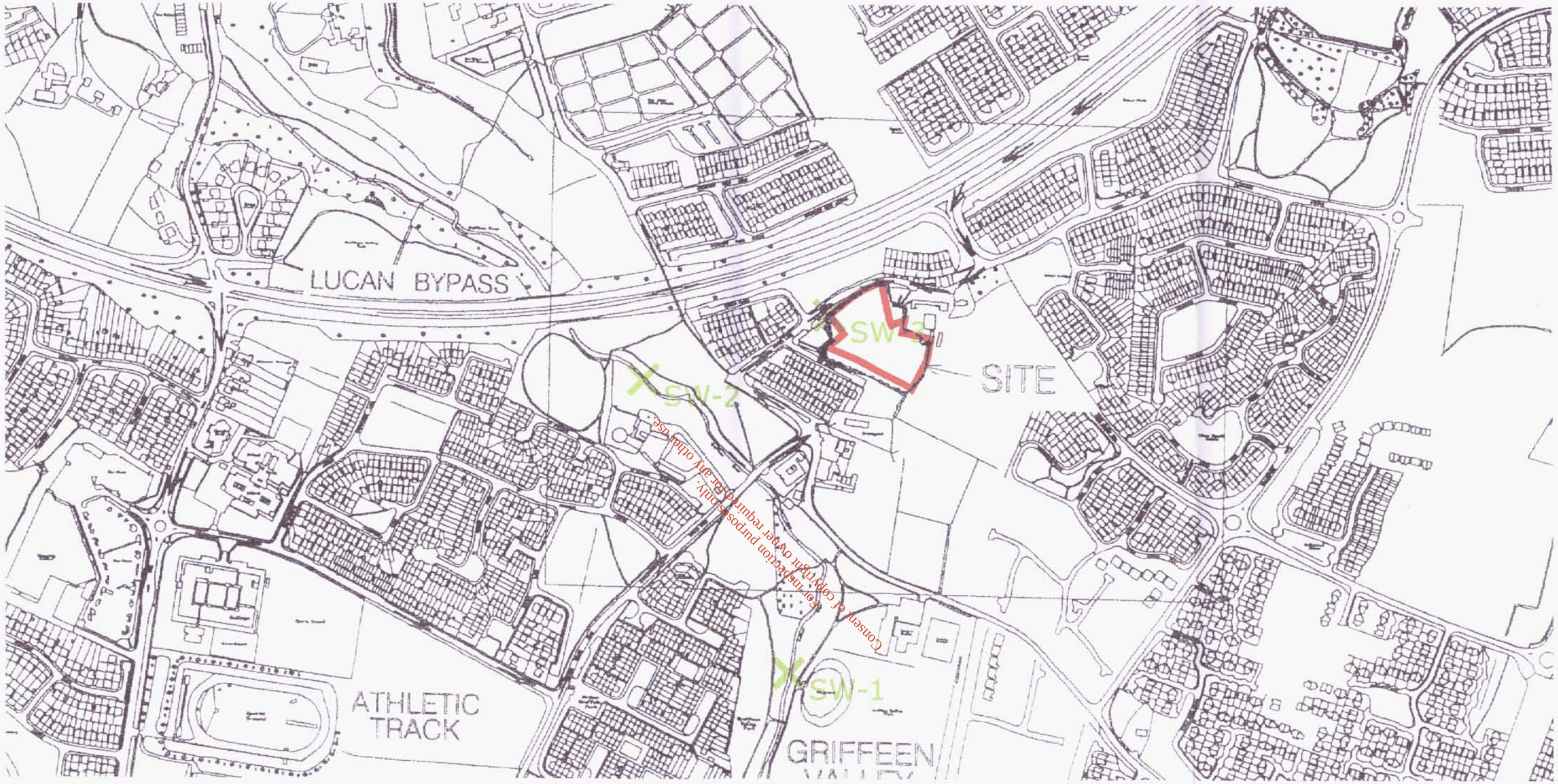


Fig. I.2.1: Location of Surface Water, Monitoring points Sampled, May - June 2005

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OFFICE: Civil Office			
REVISIONS		BY	DATE
A/			
B/			
C/			
D/			
E/			
DRAWN: DB	CHECKED	SURVEYED	DATE: 16-12-05

Drawing Status: Draft

VCL Consultants
12 Athdale, Wheaton Hall, Drogheda (041) 9839958

VCL

Client: Patel Tonra Ltd.	DRAWING TITLE: Surface Water Monitoring Stns.
Job Title: Esker Lane C. A. Site	
SCALES: 1/5000 @ A3	DRAWING No.: 25088-012

SW1, SW2 and SW3

SW1 and SW2, Griffeen River samples, were taken by Louise O'Donnell and Edwina Dunford of Patel Tonra Ltd. on 16th May 2005. SW3, a storm-water sample taken from a manhole in the north-west of the Esker Lane site, was taken by Edwina Dunford and Carla McKenna of Patel Tonra Ltd. on the 29th June 2005.

Grab samples were taken, collected in appropriate bottles, stored at 4°C and transferred to Alcontrol Laboratories for analysis. Alcontrol are ISO 17025-approved (the international QA standard for laboratories). Analysis was conducted for the EPA baseline suite of parameters.

Analytical results are given in Table I.2.1 below.

Results were compared against the Salmonid Water Regulations, SI No. 293 of 1988 and the Surface Water Regulations (Quality of Surface Water Intended for the Abstraction of Drinking Water), SI No. 294 of 1989.

Results for all surface water monitoring locations were in compliance with the Salmonid and Surface Water Regulations. There was no significant difference between the upstream (SW1) and downstream (SW2) monitoring points on the Griffeen River. Furthermore, the surface water runoff from the site itself showed no evidence of contamination (SW3).

Table I.2.1: Surface Water Monitoring Results

Parameter	Units	Surface Water Regulations Class A1	Surface Water Regulations Class A3	Salmonid Water Regulations	SW-1	SW-2	SW-3
BOD	mg/l	5	7	>0.5	<2	2	<2
COD	mg/l	N/A	40	N/A	<15	<15	<15
Chloride	mg/l	250	250	N/A	37	26	16
Dissolved Oxygen	mg/l	N/A	N/A	>9	6.2	7.4	5.4
Conductivity	mS/cm	1.0	1.0	N/A	0.676	0.739	0.958
pH	pH units	5.5 – 8.5	5.5-9.0	6 – 9	7.68	8.34	7.75
Ammoniacal Nitrogen	mg/l	3.11	3.11	>0.7	<0.2	<0.2	<0.2
Cadmium	mg/l	0.005	0.005	NA	<0.0004	<0.0004	<0.0004
Calcium	mg/l	N/A	N/A	N/A	97.22	118.2	84.00
Total Chromium	mg/l	0.05	0.05	N/A	0.008	0.001	<0.05
Copper	mg/l	0.05	1.0	0.112	<0.001	<0.001	0.003
Iron	mg/l	0.2	2.0	N/A	0.005	0.005	<0.005
Lead	mg/l	0.05	0.05	N/A	<0.001	<0.001	<0.001
Magnesium	mg/l	N/A	N/A	N/A	10.16	10.78	4.475
Manganese	mg/l	0.05	1.0	N/A	0.007	0.007	0.001
Nickel	mg/l	N/A	N/A	N/A	<0.001	<0.001	0.004
Potassium	mg/l	N/A	N/A	N/A	2.2	2.4	132
Sodium	mg/l	N/A	N/A	N/A	13	14	37
Zinc	mg/l	3.0	5.0	<0.5	0.01	0.005	0.005
Total Organic Carbon	mg/l	N/A	N/A	N/A	5.0	4.0	8.0
Sulphate	mg/l	200	200	N/A	66	112	99
Total Oxidised Nitrogen	mg/l	N/A	N/A	N/A	2.8	4.6	3.6
Total Alkalinity	mg/l	N/A	N/A	N/A	220	260	350

I.3 Assessment of impact on receiving sewer

Emissions to sewer from the facility are only from toilets in the office building. The impact on receiving sewers is therefore regarded as minimal.

I.4 Assessment of impact to groundwater and soils

Due to the type of activity being carried out at the site it is not envisaged that groundwater quality will be adversely affected at the site. With this in mind, it was not deemed necessary to instigate an intrusive assessment of groundwater at the site. No boreholes were installed and so groundwater for the site will not be assessed as part of the monitoring regime. However, should the Agency deem it necessary in the future to require South Dublin County Council to assess groundwater quality for the site, the installation of boreholes will be carried out in consultation with the EPA.

I.5 Ground and/or groundwater contamination

There have been no known historical pollution incidents at the site and there is no evidence of contaminated ground or groundwater.

I.6 Noise Impact

Executive Summary

1. South Dublin County Council (SDCC) Parks & Landscape Services Department operates a Green Waste Facility at Esker, Lucan, Co. Dublin. Members of the public are encouraged to bring various items of green waste to the centre for off-site composting. This composted material is used by the Parks Department in various planting schemes throughout the County, and is available for sale to the public and contractors.

2. The Green Waste Facility at Esker Lane is registered with the Environmental Protection Agency (EPA) under Certificate of Registration Number R261, dated 8th February 2000.

3. The scope for the survey carried out at the Esker Green Waste Facility was to carry out ambient environmental noise measurements at specific pre-determined locations, as part of an application to the EPA for a Waste Licence.

4. Noise levels were sampled with reference to the Environmental Protection Agency Guidance Note for Noise in Relation to Scheduled Activities, and BS 7445 for the Description and Measurement of Environmental Noise (ISO 1996). 15-minute measurements were taken at pre-determined locations during the daytime period. As set out in ISO 1996, due to the fact that the noise emanating from a site may be caused by a number of different contributors the measurements need to be applicable to all noise sources and as such all measurements were taken adopting the equivalent continuous A-weighted sound pressure level as a basic quantity.

5. This document reviews the survey data and presents it in a form suitable for submittal to the Environmental Protection Agency (EPA) on behalf of South Dublin County Council.

6. Two sets of measurements were taken on the 18th November, 2005 and the 19th of December, 2005. Both sets of results are presented in this report.

7. The noise levels measured at residential locations (and at the school) do not appear to be dominated by noise from the site, to the extent that the noise being experienced in those locations is greater than the EPA Guide level of 55dB$_A$ during daytime.

8. The Esker site is not in operation during the night-time period and therefore has no impact as such on the environmental noise climate in the area. As a result, night-time measurements were not taken at the site.

1.0 Introduction

1.1 South Dublin County Council operates a facility for the acceptance and temporary storage of green waste at Esker Lane, Lucan, Co. Dublin.

1.2 Patel Tonra Ltd. was commissioned to undertake an environmental noise survey at the site in order to identify noise emissions from the facility, which may have the potential to act as a nuisance to neighbours.

1.3 South Dublin County Council is currently preparing an application for a Waste Licence to the EPA for the operation of the facility. In compliance with Waste Licence Application requirements, this report includes particulars relating to the main sources of noise on-site and significant off-site sources.

Methodology

1.4 Noise surveys were carried out on site by Doug Corrie and Carla McKenna of Patel Tonra Ltd on the 18th November 2005 and on the 19th of December 2005.

1.5 Measurements were performed using a Quest Model 1800 Precision Integrating Sound Level Meter. Before and after the survey the measurement apparatus was check calibrated using a Quest Model CA-12A Sound Level Calibrator.

1.6 The survey was conducted generally in accordance with ISO 1996: 1982: *Acoustics – Description and measurement of environmental noise*; specific details are set out below.

1.7 LA_{eq} measurements were taken at each monitoring point at 15-minute intervals between 1pm and 2.30pm on the 18th of November and between 1pm and 3pm on the 19th of December. Third Octave band readings were taken immediately after the LA_{eq} readings were completed.

Monitoring Locations

1.8 Noise levels were measured at a total of four locations designated as N1, N2, N3 and N4 on the 18th of November and at seven locations (four locations as above and three extra points designated as N5, N6 and N7. These locations are shown on the attached drawing (see Figure I.6.1) with N1, N2, N3 and N4 located within the site, adjacent to the facility boundary and N5, N6 and N7 located at the nearest sensitive receptors.

> Figure I.6.1: Noise monitoring locations Nov-Dec 2005

N1 Within the site, to the north east, approximately 35m from residential dwellings in Esker Lane.

N2 Within site, to the east, approximately 25m from the boundary of a primary school (Scoil Naomh Padraig).

N3 Within the site to the south, approximately 30m from the houses at no. 31 and 32 Esker Glebe.

N4 Within the site to the west, approximately 30m from the houses at no. 23 and 24, Esker Glebe, the closest residential receptors to the site.

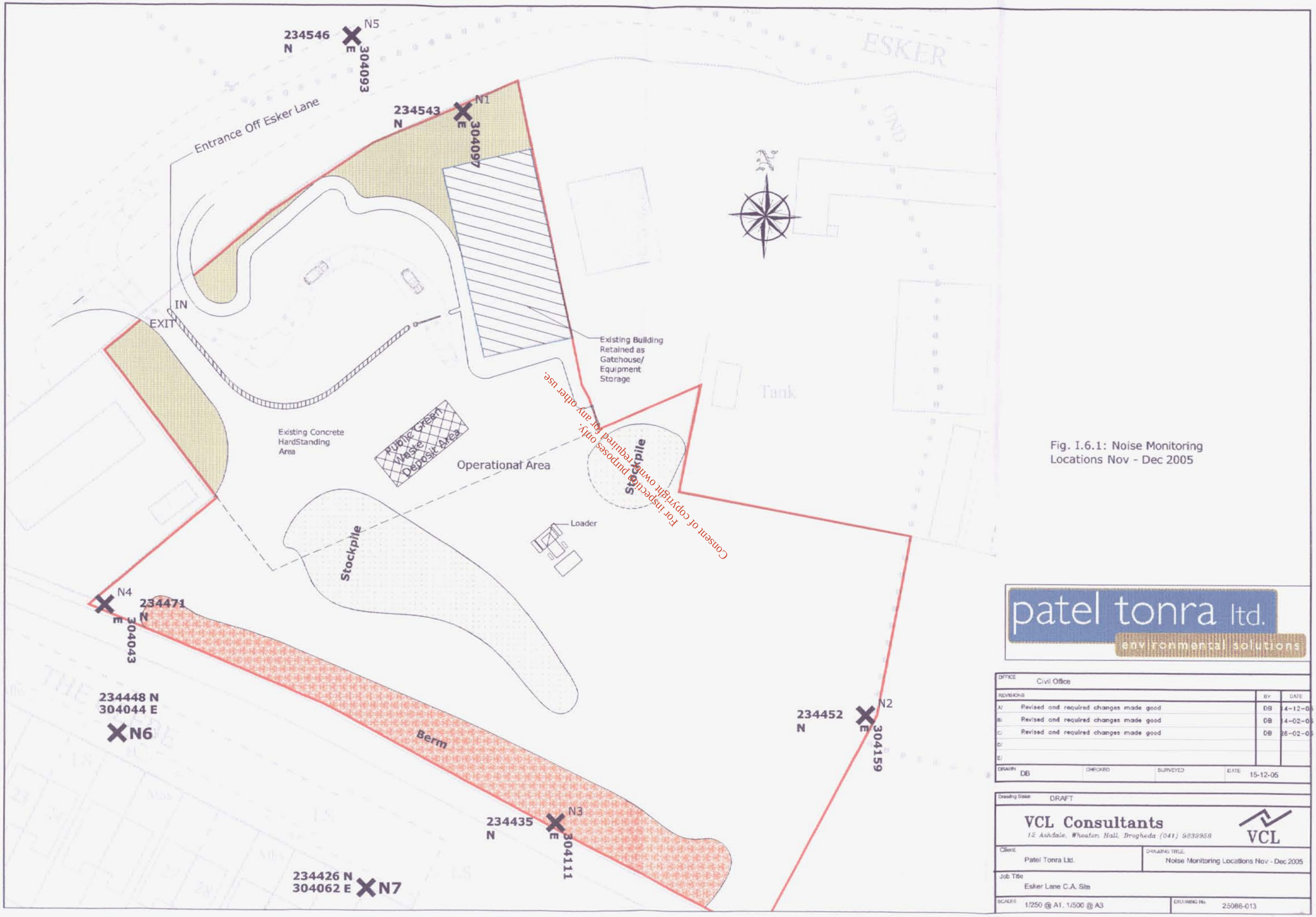

Fig. I.6.1: Noise Monitoring Locations Nov - Dec 2005

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OFFICE	Civil Office			
REVISIONS			BY	DATE
A/	Revised and required changes made good		DB	14-12-05
B/	Revised and required changes made good		DB	14-02-06
C/	Revised and required changes made good		DB	28-02-06
D/				
E/				
DRAWN	DB	CHECKED	SURVEYED	DATE 15-12-05

Drawing Status: DRAFT

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Client: Patel Tonra Ltd.	DRAWING TITLE: Noise Monitoring Locations Nov - Dec 2005
Job Title: Esker Lane C.A. Site	
SCALES: 1/250 @ A1, 1/500 @ A3	DRAWING No. 25086-013

N5 Outside the facility boundary to the north east, located on Esker Lane

N6 Outside the facility boundary to the south west, located in the residential estate "The Glebe", 26m from the facility boundary.

N7 Outside the facility boundary to the south, located close to the local primary school and secondary school which is under construction.

Noise Sources

1.9 As at December 2005, site operations included on-site shredding of green waste, prior to being sent off-site to a composting facility. However the practice of shredding green waste at Esker Lane ceased in January 2006. Therefore noise levels recorded were measured at lunchtime, between 1pm and 3.00pm, when the shredder was not in use.

1.10 Those items of site plant considered to contribute to the noise climate in the vicinity of the site are primarily related to the use of four waste handling machines – two are council-owned, and operate on a full-time basis, i.e. a 2001 model landini top 165 tractor with front end loader, and a JLG telescopic loader with 1.5 cubic meter bucket. Two machines are contractor-owned and currently work mainly on shredding operations, i.e. two 2004 JCB telescopic loading shovels 530/70 fitted with 3 cubic meter buckets. It is expected that the number of vehicles used for site operations will be reduced when shredding is discontinued in January 2006.

1.11 The primary source of off-site noise is road traffic. Intermittently there is a contribution from specific activities on, or in the vicinity of the public road, such as road sweeping, bin collection or lawn-mowing by residents.

1.12 The noise is typically characterised by both tonal and broadband noise sources (The term "broadband" refers to a noise with components at low, mid and high frequencies) and the results of the broadband analyses are given in Chapter 2.

1.13 All noise levels quoted in relation to specific sources are given in terms of L_{Aeq}. The definition of L_{Aeq} and all other terms used in the course of this report are given at the end of this section.

2.0 Environmental Noise Measurement Results

Broadband Measurements

2.1 Broadband measurements were taken at positions N1, N2, N3, N4, N5, N6 and N7 as described in Section 1. The broadband measurements were then compared against typical limits set out by the EPA. All readings, which are in excess of typical EPA licence limits, are highlighted in red. The daytime measurements taken are given in Tables 2.1 to 2.7 below.

Monitoring Position N1

2.2 The results for N1 are summarised in Table 2.1 below.

Table 2.1: Broadband Readings taken at N1

Time	Measured Noise Levels (dB)			EPA Licence Limit (L_{Aeq})
	L_{Aeq}	L_{MIN}	L_{MAX}	
13:30 – 13:45, 18/11/2005	**61.0**	52.7	71.4	55
13:00 – 13:15, 19/12/2005	**62.5**	57.9	69.9	

Monitoring Position N2

2.3 The results for N2 are summarised in Table 2.2 below

Table 2.2: Broadband Readings taken at N2

Time	Measured Noise Levels (dB)			EPA Licence Limit (L_{Aeq})
	L_{Aeq}	L_{MIN}	L_{MAX}	
13:45– 14:00, 18/11/2005	49.9	41.8	69.6	55
15:00– 15:15, 19/11/2005	**55.4**	53.8	70.7	

Monitoring Position N3

2.4 The results for N3 are summarised in Table 2.3 below.

Table 2.3: Broadband Readings taken at N3

Time	Measured Noise Levels (dB)			EPA Licence Limit (L_{Aeq})
	L_{Aeq}	L_{MIN}	L_{MAX}	
14:00– 14:15, 18/11/2005	51.5	42.6	71.4	55
14:45– 15:00, 19/12/2005	51.3	47.4	64.3	

Monitoring Position N4

2.5 The results for N4 are summarised in Table 2.4 below

Table 2.4: Broadband Readings taken at N4

Time	Measured Noise Levels (dB)			EPA Licence Limit (L_{Aeq})
	L_{Aeq}	L_{MIN}	L_{MAX}	
14:15– 14:30, 18/11/2005	**60.3**	51.2	81.2	55
14:30– 14:45, 19/12/2005	**58.7**	52.7	85.7	

Monitoring Position N5

2.6 The results for N5 are summarised in Table 2.5 below

Table 2.5: Broadband Readings taken at N5

Time	Measured Noise Levels (dB)			EPA Licence Limit (L_{Aeq})
	L_{Aeq}	L_{MIN}	L_{MAX}	
13:15– 13:30, 19/12/2005	**65.8**	52.3	83.1	55

Monitoring Position N6

2.7 The results for N6 are summarised in Table 2.6 below

Table 2.6: Broadband Readings taken at N6

Time	Measured Noise Levels (dB)			EPA Licence Limit (L_{Aeq})
	L_{Aeq}	L_{MIN}	L_{MAX}	
13:15– 13:30, 19/12/2005	**55.9**	50.4	66.9	55

Monitoring Position N7

2.8 The results for N7 are summarised in Table 2.7 below

Table 2.7: Broadband Readings taken at N7

Time	Measured Noise Levels (dB)			EPA Licence Limit (L_{Aeq})
	L_{Aeq}	L_{MIN}	L_{MAX}	
14:00– 14:15, 19/12/2005	51.7	47.4	71.1	55

2.9 As can be seen in Figure 2.1 to 2.7 below, the noise produced from plant in this area has a tonal component which spans a wide frequency spectrum.

Third Octave Frequency Readings

Figure 2.1: 1/3 Octave Frequency Readings for Position N1 on 18th of November

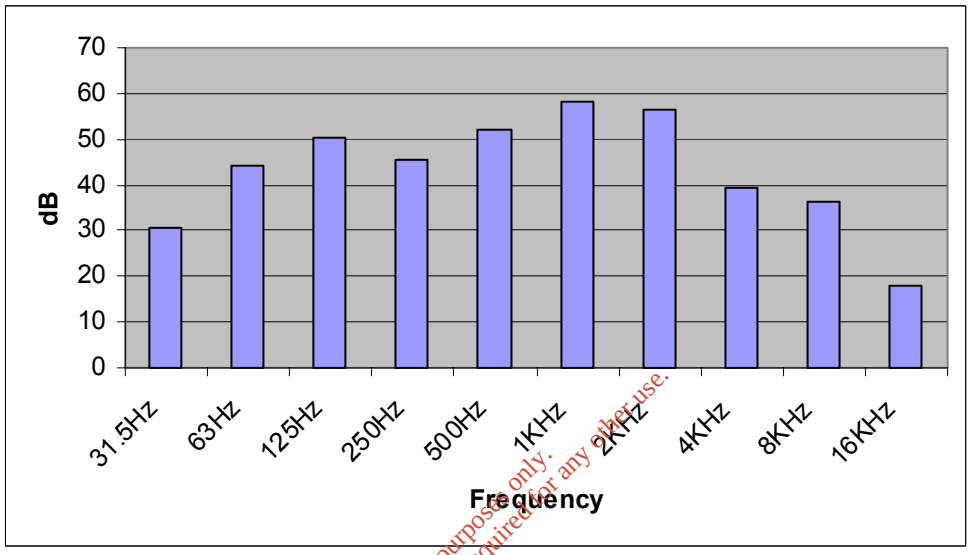


Figure 2.2: 1/3 Octave Frequency Readings for Position N2 on 18th of November

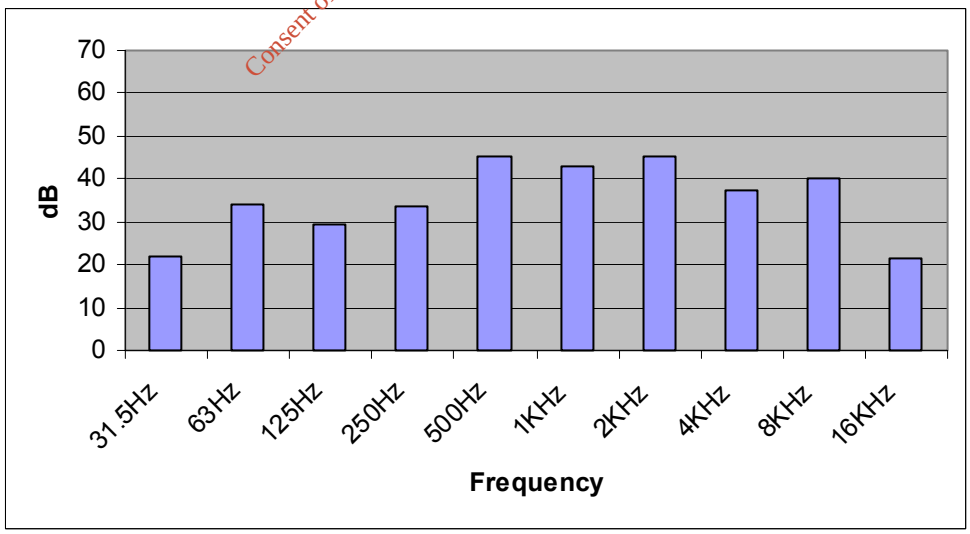


Figure 2.3: 1/3 Octave Frequency Readings for Position N3 on 18th of November

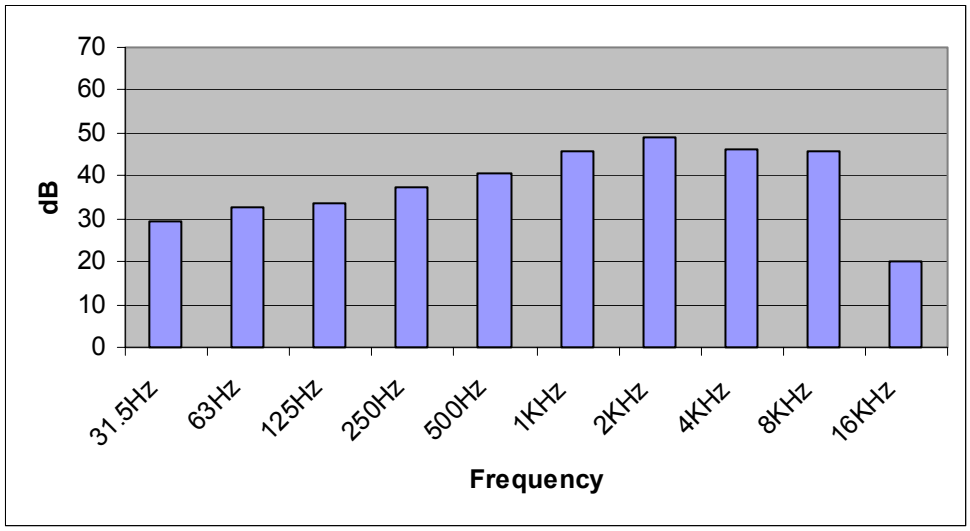


Figure 2.4: 1/3 Octave Frequency Readings for Position N4 on 18th of November

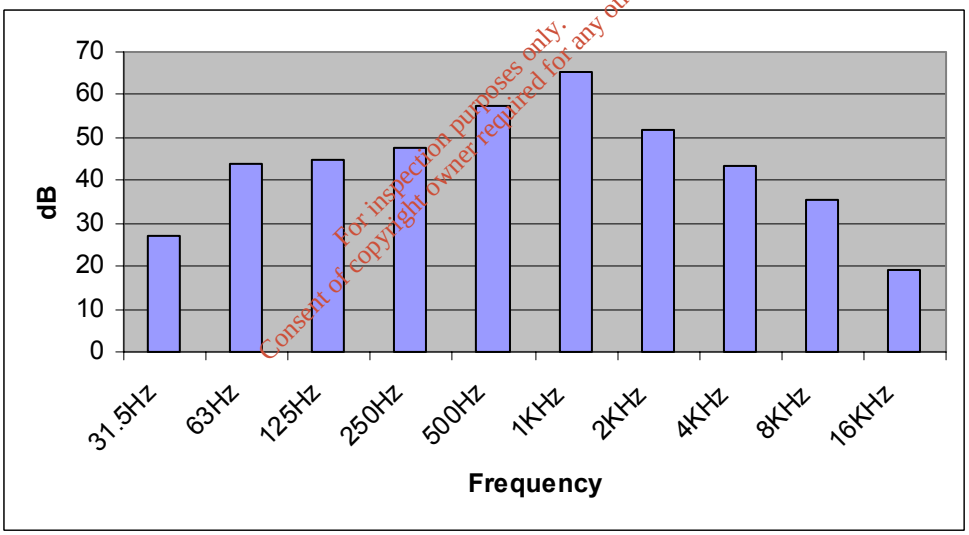


Figure 2.5: 1/3 Octave Frequency Readings for Position N5 on 19th of December

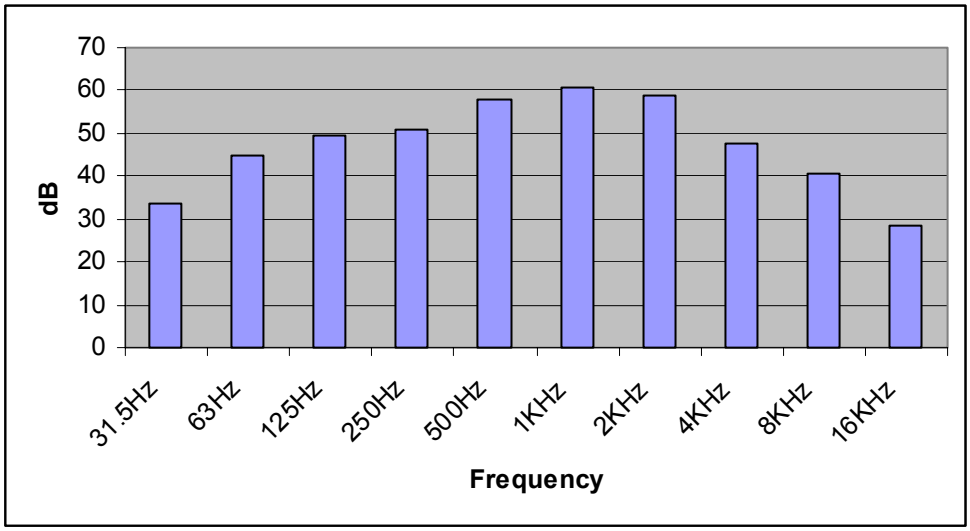


Figure 2.6: 1/3 Octave Frequency Readings for Position N6 on 19th of December

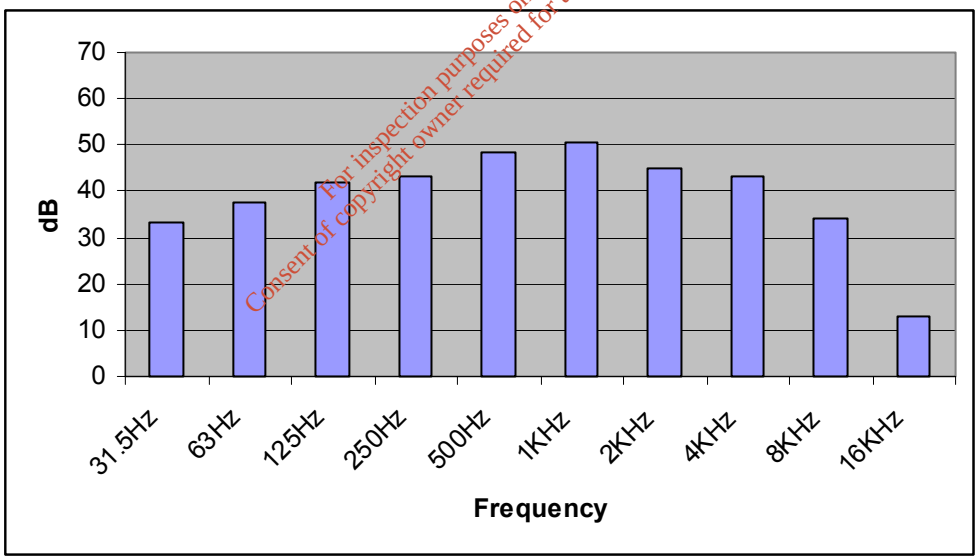
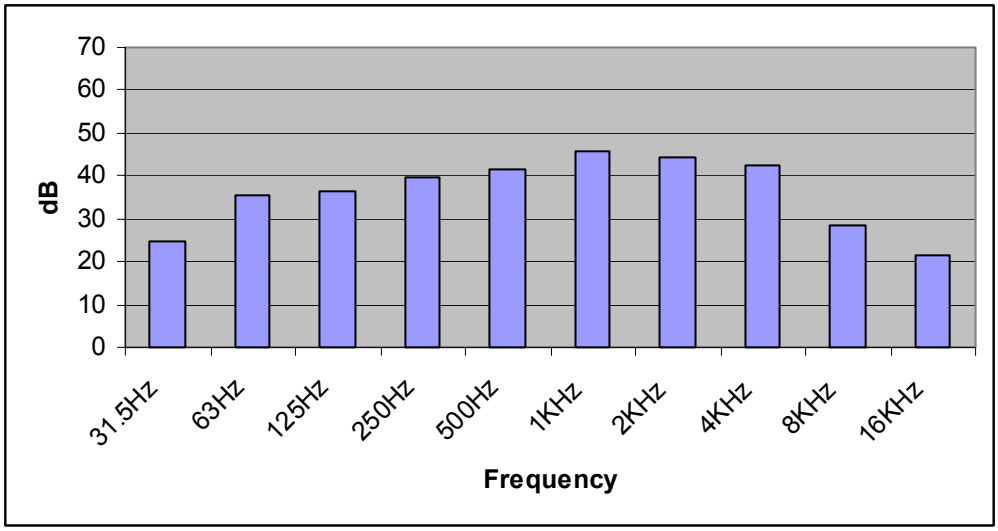


Figure 2.7: 1/3 Octave Frequency Readings for Position N7 on 19th of December



3.0 Discussion

Monitoring Position N1 (See Figure I.6.1)

3.1 Monitoring Position N1 is located within the site, to the north east, approximately 35m from residential dwellings in Esker Lane.

- Noise readings were taken at this position when site plant was in operation and the public were depositing green waste.
- The main noise sources in this area included the outside road noise, site machinery, primarily the Atlas grab transporting waste from the deposit area to a holding area before shredding (which has since ceased on site), and the vehicles depositing green waste.
- Vehicular noise was relatively constant with occasional peaks which occurred from time to time when a vehicle with a diesel engine and located close to the monitoring location was restarted having been stopped during unloading.
- The daytime noise level was 61dB L_{Aeq} on the 18th of November and 63dB L_{Aeq} on the 19th of December.

Monitoring Position N2 (See Figure I.6.1)

3.2 Monitoring Position N2 is located within the site, to the east, approximately 25m from the boundary of a local primary school (Scoil Naomh Padraig).

- The main noise sources in this area include distant low level construction noise.
- The daytime noise level was 50dB $L_{Aeq.}$ on the 18th of November and 55dB $L_{Aeq.}$ on the 19th of December.

Monitoring Position N3 (See Figure I.6.1)

3.3 Monitoring Position N3 – Within the site to the south, approximately 30m from the houses at no. 31 and 32 Esker Glebe.

- When the noise measurement at this location was taken, there was no machinery or plant working and therefore there were no noise sources apart from some vehicles entering the site depositing green waste.
- The daytime noise level was 52dB $L_{Aeq.}$ on the 18th of November and 52dB $L_{Aeq.}$ on the 19th of December.

Monitoring Position N4 (See Figure I.6.1)

3.4 Within the site to the west, approximately 30m from the houses at no. 23 and 24, Esker Glebe, the closest residential receptors to the site.

- The main noise source in the area was a front end loader.
- The daytime noise level was 60dB $L_{Aeq.}$ on the 18th of November and 59dB $L_{Aeq.}$ on the 19th of December.

Monitoring Position N5 (See Figure I.6.1)

3.5 Outside the facility boundary to the north east, located on Esker Lane.

- No site noise was audible at this point. The main noise source was the road traffic which was clearly audible, along with a dog barking.
- The daytime noise level on the 19th of December was 66dB L_{Aeq}, which is a higher level than that measured on site on that date (at the closest point).

Monitoring Position N6 (See Figure I.6.1)

3.6 Outside the facility boundary to the south west, located in the residential estate "The Glebe", 26m from the facility boundary.

- The main noise sources in this area include distant low level construction noise, along with the traffic from the main road.
- The daytime noise level on the 19th of December was 56dB L_{Aeq}, again at a higher level than was measured on site on each occasion measured.

Monitoring Position N7 (See Figure I.6.1)

3.7 Outside the facility boundary to the south, located close to the local primary school and secondary school which is under construction.

- The main noise source at this point was construction noise in the background from the school as well as a dog barking.
- The daytime noise level on the 19th of December was 52dB L_{Aeq}

4.0 Conclusions

4.1 Noise levels recorded at two locations on the 18th of November 2005, N1 and N4, were above the EPA guidance limit of 55dB during daytime operations. This was due to the close proximity of position N1 to the access road and position N4 to the reversing movement of site plant.

4.2 Noise levels recorded at four locations on the 19th of December 2005, N1, N4, N5 and N6, were above the EPA guidance limit of 55dB during daytime operations. This was due to the close proximity of these points to the road.

4.3 It should be noted that the overall noise climate in this area is influenced by a number of factors including the operation of the site plant, nearby road traffic and other external sources, e.g. nearby construction work.

4.4 The noise levels measured at residential locations (and at the school) do not appear to be dominated by noise from the site, to the extent that the noise being experienced in those locations is greater than the EPA Guide level of 55dB$_A$ during daytime.

ACOUSTICAL PARAMETERS

L_{Aeq} is the A-weighted equivalent continuous steady sound level and effectively represents an average value.

L_{Amax} is the maximum A-weighted sound level measured during the sample period.

L_{Amin} is the minimum A-weighted sound level measured during the sample period.

A-weighting is the process by which noise levels are corrected to account for the non-linearity of human hearing.

All quoted noise levels are relative to $2x10^{-5}$ Pa.

I.7 Assessment of Ecological Impacts and Mitigation Measures

The impact of the facility on the ecology of the surrounding area is regarded as insignificant.

Attachment J: Accident Prevention & Emergency Response

J.1 Accident prevention and Emergency Response

Fire Control

All employees working at the facility will be trained in the proper procedures to be followed in the event of a fire at the site. All site buildings will require a fire certificate from the local fire officer.

There are a number of fire control equipment points currently on site, located in the Site Office and Garage.

Plate J.1: Fire Extinguishers located by the entrance/exit of the Site Office

Plate J.2: Fire Extinguishers located in the garage building

All staff at the site will be trained in the use of fire fighting equipment i.e. blankets and extinguishers. As part of their training, employees will be instructed in the following:

- Keep fire escape routes clear
- Keep all fire doors closed
- Know the escape routes in your environment
- Know the locations of break-glass fire alarm buttons and fire-fighting equipment, and make sure they are easily accessible
- Know the designated assembly points
- Learn to use fire-fighting equipment

In the event that a fire takes place at the facility that cannot be tackled by employees then the fire brigade will be contacted. 24-hour access to the site will be arranged for emergency services.

It is proposed to install 2 No. fire reels at outdoor locations on site.

Arrangements in Case of Breakdown or Emergency Situations

If for any reason the facility is required to cease the acceptance of material, it will be the responsibility of the site operators to redirect those persons wishing to dispose of green waste to the nearest disposal facility. The public will be notified in advance (where possible) to advise of any unforeseen need for non-acceptance of materials at the site. Instances resulting in the facility being unable to accept material would include:

- Industrial disputes
- The storage capacity of the facility being exceeded
- Breakdown of site machinery resulting in a build-up of material in the acceptance area. This situation is unlikely to arise as temporary replacement machinery can be acquired while the existing machinery is under repair

If the Bord na Mona facility at Kilberry, Athy is not in a position to take green waste from the site due to any unforeseen circumstances, as a contingency arrangement, material will be diverted to Enrich Environmental, Newtown, Rathganley, Kilcock, Co. Meath (Waste Permit Number 2004/57).

Contingency Arrangements in Case of Environmental Contamination

If for any reason the facility is required to cease the acceptance of material due to environmental contamination at the site, it will be the responsibility of the site operators to redirect those persons wishing to dispose of green waste to the nearest disposal facility. The public will be notified in advance (where possible) to advise of any unforeseen need for non-acceptance of materials at the site.

Instances resulting in the facility being unable to accept material would be contamination whereby remedial works would result in the site being unable to accept waste materials until the site was environmentally satisfactory, examples would be:

- Surface water contamination from spillages or unplanned discharges
- Contamination of air from smoke after fires at the site
- Groundwater contamination from on-site spillages

Emergency Contacts

Emergency contact numbers, e.g. Lucan Fire Brigade, doctors and hospitals will be posted in all site buildings so that they are easily accessible and prominent for all employees.

Attachment K: Remediation, Decommissioning, Restoration and Aftercare

K.1 Cessation of Activity

If the decommissioning of part or all of the Esker Lane Green Waste facility should be required, the following programme will be put in place. The decommissioning of the site will have to be carried out in a phased process to allow for minimal environmental impact from the site closure. It is envisaged that the phased approach will be carried out as follows:

1. The site will stop accepting materials at the site after a specified date and all remaining organic materials which have been deposited at the site prior to this date will be treated as per the current operations.
2. All residual material, i.e. large organic material will be deposited at an alternative green waste facility or sent to a licensed landfill.
3. After all organic material has been removed a programme of environmental monitoring and a site audit will be carried out to ensure that the local environment has not been adversely affected by the closure of the facility and that no residual material remains on the site.
4. After the site audit and monitoring has been completed, SDCC will use the site for other purposes, in line with proper planning and development of the site.

Aftercare Management

It is not envisaged that the activities at Esker Green Waste facility will have an adverse affect on the site, which will result in detailed aftercare management of the site being required. SDCC will ensure that all environmental aspects relating to the aftercare of the site will be addressed if necessary.

Post-closure environmental monitoring at the site will be agreed with the Environmental Protection Agency (EPA) after appropriate closure procedures have been put in place.

Attachment L: Statutory Requirements

L.1 Section 40(4) WMA

Information Required under the Waste Management Acts, 1996 to 2005

Section 40(4) of the Waste Management Acts 1996 to 2005 states that the Agency shall not grant a waste licence unless it is satisfied that the following points have been complied with:

(a) any emissions from the recovery or disposal activity in question ("the activity concerned") will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any other enactment

The facility will be managed and operated to minimise environmental impact. Environmental monitoring is proposed for dust, noise and odour to ensure that relevant emission limit values are not exceeded.

(b) the activity concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution,

The facility will not cause environmental pollution. Proposed activities are low environmental risk, i.e. the acceptance and short-term storage of green waste, prior to off-site shredding and composting. Routine monitoring will ensure that no pollution is being caused. Furthermore, the Applicant has recently elected to discontinue green waste shredding at the site, with the result of reducing dust and noise emissions.

(bb) if the activity concerned involves the landfill of waste, the activity, carried on in accordance with such conditions as may be attached to the licence, will comply with Council Directive 1999/31/EC on the landfill of waste

Not applicable

(c) the best available technology not entailing excessive costs will be used to prevent or eliminate or, where that is not practicable, to limit, abate or reduce an emission from the activity concerned,

The Applicant has included proposals for significant capital investment to eliminate or control emissions, e.g. surface water management system, concrete hardstanding, boundary walls, retaining walls for stored green waste, sprinkler systems, in line with EPA BAT (Best Available Technology) Notes for Transfer Facilities.

(cc) the activity concerned is consistent with the objectives of the relevant waste management plan and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan

The Waste Management Plan for the Dublin Region (2005-2010) makes the following references to the Esker Lane Green Waste Facility:

3.4.2 Green Waste: There were a number of submissions from the private sector gardening and landscaping organisations concerned about the imminent closure of Esker Lane and the lack of proposed facilities for drop–off of both household and commercial green waste within the Region.

18.7.2 Green Waste Capacity: Green Waste facilities are required for garden and landscaping waste, a long-term capacity of up to 50,000 – 80,000 tonnes/annum is required. The Local Authority will consider developing this capacity alongside existing or proposed facilities. Development of capacity in the private sector is also encouraged. South Dublin County Council operates a green waste facility at Esker Lane.

Shredding and/or Transfer facilities will be developed by the Local Authorities, it is proposed that two facilities be operational by the end 2005 and four facilities by end 2006. These will accept green waste from householders and from landscapers. Waste will be shredded or bulked and loaded onto trailers for onward transfer to composting facilities. Locations currently identified as potential sites for reception / shredding/ bulking/ transfer include: Esker Lane (South Dublin), Operational for waste reception

11.3.1 Green Waste Composting
Up until 2004, two facilities were in place in the Region:

- **St Anne's Park** in Raheny, operated by DCC with a capacity of approximately 20,000 tonnes/annum. This facility was forced to close in 2004.
- **Esker Lane, Lucan**, operated by South Dublin County Council with a capacity of approximately 5,000 tonnes/annum.

The 1998 Waste Management Plan had called for an expansion of green waste composting capacity. The Esker facility in South Dublin has provided some of this extra capacity, but the demand for green waste composting services is increasing with the growing numbers of suburban gardens and expanding landscaping industry. With the closure of St Anne's Park, the Region may have to rely on facilities in adjoining counties for green waste composting, until capacity can be developed closer to the source of the waste.

19.6 Policy for Biodegradable Waste
The Dublin Local Authorities will implement the recommendations of the Draft National Biodegradable Waste Strategy, and thereby fulfill the Region's role in meeting National targets under the EU Landfill Directive. This will be carried out by:

- Including prevention and minimization of biodegradable waste in its prevention programme (including the promotion of home composting)
- Separately collecting biodegradable waste from household and commerce/industry:
- Green waste to be collected at appropriate Recycling Centres for onward transfer to green waste composting
- Household and commercial food and garden waste for biological treatment and making high quality compost
- Developing energy recovery capacity at the Dublin Waste to Energy facility to treat any residual biodegradable waste

We conclude, therefore, that the Esker Green Waste Facility is in line with the Dublin Region Waste Management Plan.

(d) if the applicant is not a local authority, the corporation of a borough that is not a county borough, or the council of an urban district, subject to subsection (8), he or she is a fit and proper person to hold a waste licence,

Not applicable

(e) the applicant has complied with any requirements under section 53.

Financial commitments or liabilities will be addressed by the Applicant.

(f) energy will be used efficiently in the carrying on of the activity concerned

The facility will not be an intensive energy-user. The major energy requirements are in terms of equipment operation. Energy will be monitored and reported to the Agency on an annual basis.

(g) any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 1992

Regular noise monitoring will be conducted to ensure that noise emission limits are complied with.

(h) necessary measures will be taken to prevent accidents in the carrying on of the activity concerned and, where an accident occurs, to limit its consequences for the environment

Appropriate accident and environmental accident prevention procedures will be put in place.

(i) necessary measures will be taken upon the permanent cessation of the activity concerned (including such a cessation resulting from the abandonment of the activity) to avoid any risk of environmental pollution and return the site of the activity to a satisfactory state.

Appropriate closure and aftercare plans will be agreed with the Agency.

L.2 Fit and Proper Person

Not applicable to Local Authority applicants.