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**	N	
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**	Y	
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	ESB SUBSTATION

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** ☒	**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 NOT APPLICABLE

		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 NOT APPLICABLE

		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 NOT APPLICABLE

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 NOT APPLICABLE

		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 – NOT APPLICABLE

Complete the following table detailing the design of the capping system. **Attachment D.6** should contain the appropriate documentation. ***Items D6e to D6k should 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** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Dust Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Fire Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Litter Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Traffic Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Vermin Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Road Cleansing	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

SECTION F CONTROL & MONITORING

F.1: Treatment, Abatement and Control Systems

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

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

Attachment F.1 should contain any supporting information.

F.2- F. 9. Monitoring and Sampling Points

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

Include details of monitoring/sampling locations and methods.

F.2 Air
- to include Dust, Odour

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

F.3 Surface Water

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

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

F.4 Sewer Discharge

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

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

F.5 Groundwater

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

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

F.6 Noise

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

F.7 Meteorological Data

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

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

NOT APPLICABLE

F.8 Leachate

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

F.9 Landfill Gas NOT APPLICABLE

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

SECTION G RESOURCES USE & ENERGY EFFICIENCY

G.1 Raw Materials, Substances, Preparations and Energy

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

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

G.2 Energy Efficiency

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

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

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		160000
Class 3			Class 3		25000
Class 4			Class 4		30000
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		20000	Class 11		
Class 12		5000	Class 12		
Class 13		5000	Class 13		5000

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)
2009	50000	0	50000
2010	250000	0	250000

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		50,000	UNKNOWN
Commercial		110000	UNKNOWN
Sewage Sludge		0	0
Construction and Demolition		60000	UNKNOWN
Industrial Non-Hazardous Sludges		0	0
Industrial Non-Hazardous Solids		30000	UNKNOWN
Hazardous ***(Specify detail in Table H 1.2)**		0	0
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	0
Oil filters		0	0
Asbestos		0	0
Paint and Ink		0	0
Batteries		0	0
Fluorescent Light Bulbs		0	0
Contaminated Soils		0	0
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)			
			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, appropriately scaled plans/drawings (≤A3), documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment I.5**.

I.6 Noise Impact.

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

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

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

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

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

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

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** ☒	**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** ☒	**no** ☐	**not applicable** ☐

SECTION L STATUTORY REQUIREMENTS

L. 1 Section 40(4) WMA

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

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

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

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

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** ☐

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

Signed by : _____ **Date :** 10/2/09
(on behalf of the organisation)

Print signature name: Eamon Waters

Position in organisation : Managing Director

Company stamp or seal:

ANNEX 1 STANDARD FORMS

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

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

Emission Point Ref. N^{o}:	
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}:	Odour management system To Be Agreed with the Agency
Source of Emission:	Air Extraction MSW Building
Location :	To be Agreed
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: _____

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^oC,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	
1	Dust – Vehicle Movements					
2	Vehicle emissions					

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. N^{o}:	SW1
Source of Emission:	Roofs & Paved Areas
Location :	Discharge from Petrol Interceptor to storm sewer
Grid Ref. (10 digit, 5E,5N):	
Name of receiving waters:	Stadium Business Park Storm Sewer
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}:	NONE
Location of connection to sewer :	
Grid Ref. (10 digit, 5E,5N):	
Name of sewage undertaker:	

Emission Details:

(i) Volume to be emitted			
Normal/day		Maximum/day	
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:	NONE
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 NOISE IMPACT ASSESSMENT

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

SEE ATTACHMENT F

Emission point reference number :_____

Control[1] parameter	Equipment [2]	Equipment maintenance	Equipment calibration	Equipment back-up
Odour	To be Agreed			
Noise	Buildings			
Dust	Buildings			
Surface water sewer	Oil interceptor			
Foul Sewer	-			

Control[1] parameter	Monitoring to be carried out[3]	Monitoring equipment	Monitoring equipment calibration
Odour	daily		
Noise	Bi Annually	To be Agreed	
Dust	Bi Annually	Bergerhoff Gauges	
Surface water sewer	Quarterly	Chemical analysis - Grab	
Foul Sewer	No emission	Chemical analysis - Grab	

[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). : SW1

Parameter	Monitoring frequency	Accessibility of Sampling Points
Electrical Conductivity, pH, Hydrocarbons	Quarterly	

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

Monitoring Point Reference No : DS-01, DS-02, DS-03

Parameter	Monitoring frequency	Accessibility of Sampling point
TOTAL, ORGANIC, INORGANIC DUST	BI-ANNUAL (May – September)	

Monitoring Point Reference No : N1, N2, NSL1, NSL2,

Parameter	Monitoring frequency	Accessibility of Sampling point
30-minute L(A)eq and will be carried out in accordance with the ISO1996: Acoustics - Description and Measurement of Environmental Noise.	BI-ANNUAL (May – September)	

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 Oil				200,000 litres			
	Hydraulic Oil				200 litres			
	Disinfectant Odour Neutralisers				80 litres 250 litres			
	Engine Oil				400 litres			
	Water				6500m^3			

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	Off-site Recovery, reuse or recycling	Off-site Disposal
			Tonnes / month	m^3 / month	(Method & Location)	(Method, Location & Undertaker)	(Method, Location & Undertaker)

[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			

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^{o}C)							
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 - See noise impact assessment report

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.