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28 May 2009

Reg No: W0012-03

Dear Mr. Duffy

I am to advise you that the Agency has received an application for a Waste Licence from Cork City Council, for a facility located at Kinsale Road Landfill, Ballyphehane, Curraghconway, Inchisarsfield, South City Link Road, Cork.

The applicant proposes, as part of this application, to provide for the discharge of process effluent to a sewer, which the applicant has stated is vested in, or controlled by, your Council. Process effluent includes trade effluent or other matter (other than domestic sewage or storm water). I enclose copy extracts from the application form, which detail proposed discharges.

The provisions of Section 52 of the Waste Management Acts, 1996 to 2008, provides that the Agency shall obtain the consent of the sanitary authority to the proposed discharge from an activity which involves the discharge of trade effluent or other matter (other than domestic sewage or storm water), to a sewer vested in or controlled by a sanitary authority.

In order to expedite the Agency's consideration of this waste licence application, I am to request your authority's consent to the proposed discharge/s. It should be noted that, your authority's consent may be subject to such conditions as your authority considers appropriate as provided for in Section 52 of the Waste Management Acts, 1996 to 2008 and Section 99E(3) of the Environmental Protection Agency Acts, 1992 and 2007. Your attention is drawn to paragraphs (3) and (4) of the attached copy of the relevant section of the Act. For your convenience please find attached a reply form including a list of draft conditions compiled by the Agency.





In accordance with paragraph (2) of this section of the Act, you are requested to forward your response within 4 weeks of the date of this letter. Please note that any decision given after the expiry period shall be invalid and in those circumstances the Agency may proceed to determine the application concerned as if consent was obtained. Stuart Huskisson is dealing with this matter and can be contacted at the Licensing Unit, Office of Climate, Licensing & Resource Use Cork Regional Inspectorate, Inniscarra, Co Cork (Tel. No. 021 487550) if you have any queries.

Your co-operation in this matter is appreciated.

Yours sincerely,

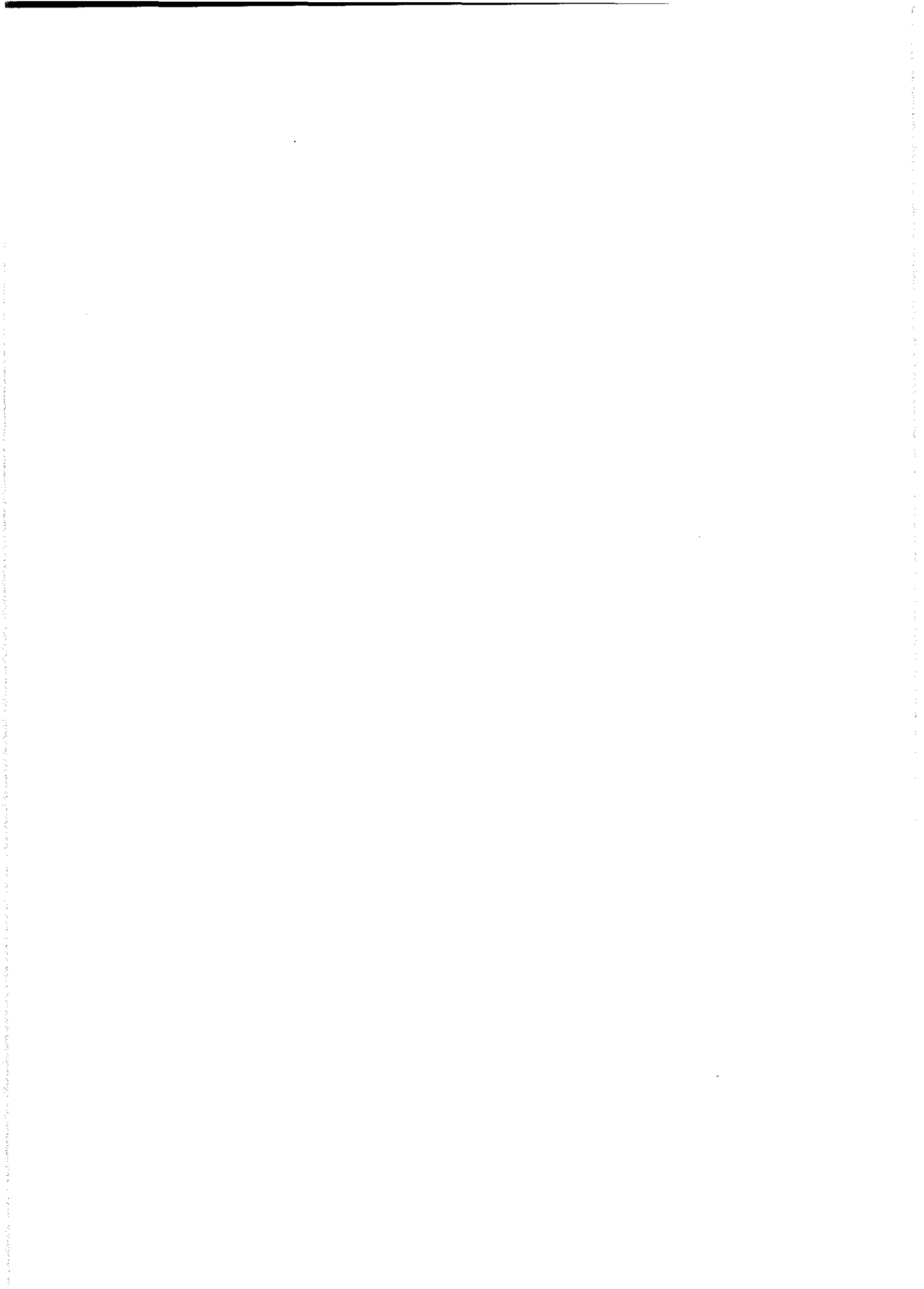


Sonja Smith

**Programme Officer**

**Licensing Unit**

**Office of Climate, Licensing & Resource Use**



**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.

<b>Name:</b>	Cork County Council
<b>Address:</b>	County Hall
	Cork
<b>Tel:</b>	021 4276891
<b>Fax:</b>	021 4276321

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.

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**(c) Sanitary Authority**

The existing site is connected to the Cork main drainage scheme via the Tramore Valley sewer. Effluent is pumped for treatment to Carrigrennan wastewater treatment plant in Little Island. The final effluent from this wastewater treatment plant is discharged to Lough Mahon. This plant is in the functional area of

Cork County Council,  
County Hall,  
Cork

Tel: 021 4276891  
Fax: 021 4276321

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**(o) Arrangements for Off-Site Treatment or Disposal of Wastes**

The bulked up waste from the waste transfer station will be transported to an appropriate licenced facility for disposal/recovery.

Leachate generated at the facility will be discharged to the existing sewer connection.

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**Attachment B.4 Sanitary Authority**

Cork County Council,  
County Hall,  
Cork

Tel: 021 4276891  
Fax: 021 4276321

The development is connected to the Cork main drainage scheme via the Tramore Valley sewer. This is pumped for treatment (via Ronaynes Court Pumping Station and Ballinure Header Chamber) to Carrigrennan wastewater treatment plant in Little Island. The final effluent from this wastewater treatment plant is discharged to Lough Mahon.

A copy of the letter of agreement with the operators of Carrigrennan wastewater treatment plant is included in Attachment B.4.1

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**Sewer**

Currently, the licenced facility is connected to the Tramore Valley sewer. Wastewater and leachate from the facility is pumped to this sewer connection. It is proposed that leachate from the waste transfer building will be connected into the current leachate collection system and discharged to the Tramore Valley sewer.

**2.6 Task 6 Clarify the class, specification and location of all existing and proposed interceptors and silt traps**

There are two existing interceptors onsite. The class and specification of these interceptors are detailed below and the location of these

interceptors is outlined on Drawing LW0900103-001 A in Appendix 4.

- A petrol & oil interceptor was recently installed to cater for surface water run-off in the northern section of the Contract 8 Access Road. The specification of this interceptor is a Klargestor Class I Full Retention Separator NSFA 060.
- There is also an existing oil interceptor to serving the WEEE Stab compound. The specification of this interceptor is a Klargestor Class II Bypass Separator NSB 3.

As part of the waste transfer station, a silt trap/interceptor is proposed. Run-off from within the waste transfer station building will be discharged through this interceptor to the leachate treatment plant before being discharged to the Tramore Valley sewer. As the wastewater is being discharged to a sewer and not directly to surface water, a Klargestor Class II Bypass Separator NSB 3 or similar will be a sufficient specification in this location. The proposed interceptor location is also included in Drawing LW0900103-001 A in Appendix 4.

**2.17 Task 17 Provide a summary of the leachate management system and the leachate conditioning plant treatment process**

The management of leachate at Kinsale Road Landfill includes the collection, storage, treatment and disposal of leachate.

The leachate collection system is made up of a primary and a secondary system. The primary system consists of a long, deep cut-off trench surrounding the central part of the site. The main function of the trench is to prevent subsurface leachate from entering the Tramore and Trabeg Rivers. This deep trench discharges (via sumps and pumps) to the onsite leachate treatment plant. The secondary collection system consists of 5 leachate pumps situated in the waste body. These pumps can run manually or automatically with the SCADA system. The cell pumps discharge to the leachate treatment plant.

The leachate lagoon provides storage for leachate and additional storage for contaminated stormwater. The lagoon is divided into three cells, where cell 1 and 3 are for contaminated stormwater storage. Under normal circumstances stormwater is channelled to the reed beds prior to discharge to the Tramore River.



However, in the event of the stormwater being contaminated (post analysis), it is discharged to the treatment plant for disposal to the sewer and further treatment.

Cell 2 is for leachate storage and has a floating cover, which acts as an odour barrier. Cell 2 discharges to the leachate treatment plant. The leachate treatment plant is designed to strip dissolved methane from leachate prior to discharge to the Tramore sewer. The leachate stored in cell 2 of the lagoon is firstly discharged to a balancing tank and is then transferred to the methane stripping lanes (x2) at an approximate rate of 5.01 l/s. The stripping lanes consist of 4 chambers divided by baffled weirs. As the leachate flows through the chambers, it is aerated by disc membranes powered by two air blowers, one blower per lane. Anti-foam is added at the start of both lanes to prevent foaming of the leachate. The discharge from the lanes enters a gravel trap to prevent calcium and iron precipitation coating the discharge pumps and pipe work. The gravel trap then discharges to the sewer discharge chamber and is pumped to the Tramore sewer. The current EPA licence allows the plant to discharge 25,000 l/hr into the Tramore sewer.

There is also a temporary contaminated stormwater treatment plant along the south eastern part of the site. This plant is based on the main treatment plant design but with 4 times the capacity of the main plant and is fed with contaminated stormwater from the active area. Its construction consists of a HDPE lined pond with a concrete base containing 3 x 4 rows of 12 diffusers and a discharge pump with a 20 l/s capacity. The plant is fully automated and is controlled by the SCADA system. Cork City Council has permission from the Sanitary Authority (Cork County Council) to discharge 20 l/s to the sewer from this plant.

The leachate management system is automatically controlled and monitored using the SCADA system onsite. This includes the operation of the leachate pumps, leachate lagoon, treatment plant and sewer discharge. Parameters such as leachate levels, flow rates, methane headspace etc. are monitored through the SCADA system.

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

**Emission Point:**

Emission Point Ref. No.	5D1
Location of connection to sewer	South west boundary of the facility
Grid Ref. (0 digit NE SW)	E167226 N 069201
Name of sewage undertaker	Cork County Council, Sewer

**Emission Details:**

(i) Volume to be emitted			
Normal day	200 m <sup>3</sup>	Maximum day	400 m <sup>3</sup>
Maximum are flow	200 m <sup>3</sup>		

received about 1.5 m<sup>3</sup> in day.  
 Note: In addition to the above Cork C.M. Council is permitted to discharge contaminated surface water to the sewer at a rate of 20 l/maximum 1.25 m<sup>3</sup> in day.

(ii) Period or periods during which emissions are made or are to be made including daily or seasonal variations: starts-up shutdowns to be included:

Periods of Emission (avg)	60	max. by	24	in day	360	day to
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TABLE E.3(ii): EMISSIONS TO SEWER - Characteristics of the emission (rate per emission point)

Emission point reference number: SD1

Parameter	Plant to treat		Plant to treat		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	
Ammonia (NH <sub>4</sub> ) <sup>+</sup>	N/A	N/A	N/A	N/A		410	246	66,780
BOD <sup>5</sup>	N/A	N/A	N/A	N/A		100	60	21,900
Sulphate <sup>+</sup>	N/A	N/A	N/A	N/A		72	48	15,648
Suspended Solids <sup>+</sup>	N/A	N/A	N/A	N/A		70	42	15,330
Dissolved Methane **	N/A	N/A	N/A	N/A		1.8 ***	1.08	364

\* Maximum data taken from 2005-2008 Monitoring data

\*\* Maximum data taken from 2007 and 2008 monitoring data

\*\*\* This is the maximum value recorded from 2007-2008 monitoring data. The EPA licence limit for dissolved methane is 0.2 mg/l.

**TABLE F.4: SEWER EMISSIONS MONITORING AND SAMPLING POINTS**  
 ( 1 table per media)

Emission Point Reference No(s) : \_\_\_\_\_ SD1 \_\_\_\_\_

Parameter	Monitoring frequency	Accessibility of Sampling Points
Flow	Continuous	Specific sampling point have been designed with appropriate access
BOD	Monthly (24 hour composite)	
Ammoniacal Nitrogen	Monthly (24 hour composite)	
Suspended Solids	Monthly (24 hour composite)	
Sulphates	Monthly (24 hour composite)	
pH	Continuous	
Methane	Weekly	

## Emissions to Sewer

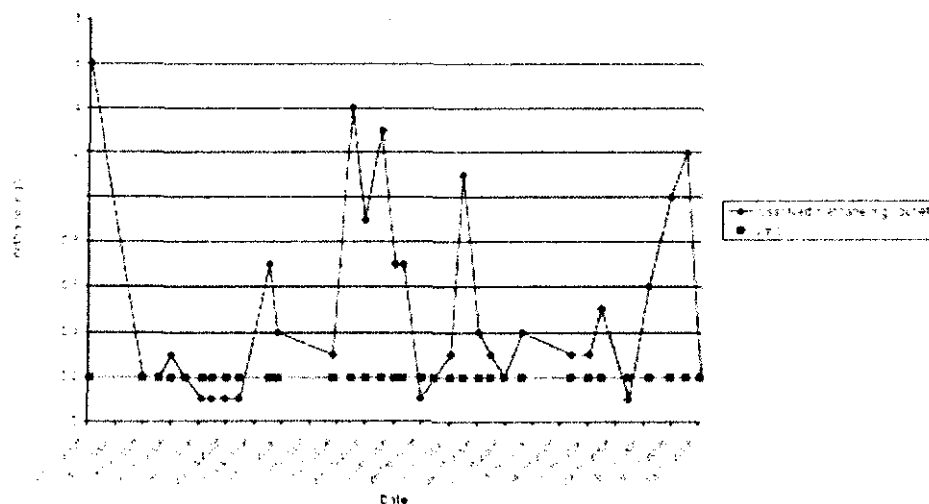
Methane (Results in brackets are for previous year)

Headspace and aqueous probe methane measurements that are automatic and continuous have now been discontinued because they are very inaccurate.

Grab samples sent to outside laboratories are also not accurate. A standard that was sent to an outside private laboratory was returned at 10% of the true value. This reflects the loss of the volatile gas in transit and is not a reflection on the accuracy of the outside laboratory.

The replacement monitoring system in operation is based on samples taken from the discharge and subjected to GC analysis in the Cork City Laboratory. The Cork City Council results show that the 34 (45) samples taken showed a range in concentration from 0.1-1.6 (0.3-1.2) mg/l. The limit in the Licence is 0.2 mg/l and 20 (26) samples exceeded. The monitoring shows that the conditioning plant reduces methane concentrations by about 95% but will still not meet the limit. See Chart 5 (page 9). Additional measures are being considered for further methane reduction. This includes the recent installation of a baffle system in balance tank to increase aeration and the employment of EnviroS to review the leachate treatment plant system.

Chart 5 Dissolved Methane @ SE1



## Flow

Leachate is collected, conditioned and discharged to the sewer. Potentially contaminated water not suitable for immediate discharge to river was formerly collected and discharged to the sewer but this now goes to the reedbeds.

The flow through the conditioning plant (6 inch line) varied from 0-26 (0-23) m<sup>3</sup> per hour. There was one exceedance (0). The licence requirement is 25 m<sup>3</sup>/hr.

The cumulative flow recorded by the Scada system in 2008 was 68 000m<sup>3</sup> (104 243) (122,627) (121 454) m<sup>3</sup>. The flow recorded was down this year due to several factors: clogging of pipe, breakdown of Scada for a month and two breakages of the line in December. The further capping of the landfill site might also be a factor.

## pH

The pH results are from 6.6-8.7 (7.5-8.0). Licence requirement is 7-9.

## 24 Hour Composite Concentrations (Results in brackets are for previous year)

Samples are taken every month.

BOD values are always low, probably due to ammonia suppression in the test.

The ammonium results varied from 16-360 (130-360) mg/l. The limit for ammonium is 600mg/l for 95% of the samples. All the samples taken complied with the licence.

The other parameters: pH, sulphate and suspended solids are well within the limits.

## 24 Hour Composite Loads

There are **no limits** in the licence.

Ammonium is the parameter that is of most concern, all the other parameters are low in concentration and load.

The ammonium load in 2008 varied from 5-104 (11-125) kg/day.

### 5.2.3. Leachate Retention Pond

The lagoon is divided into three cells, where cells 1 and 3 are for contaminated stormwater storage. Cell 2 is for additional leachate storage, it has a floating cover which acts as an odour barrier. A facility exists to pump contaminated stormwater from the stormwater pond to the lagoon for discharge to Tramore sewer.

#### (III) Stormwater Quality - Suitable For Discharge to Tramore Sewer

- The stormwater is released into the pump sump by a manual butterfly valve
- Its pumped through diversion Chamber 2 to the stormwater lagoons (Cell 1 & Cell 3)
- The contaminated stormwater is discharged to the Tramore Sewer Outfall at 20 l/sec

**Proposed Changes to the Waste Licence**

Cork City Council wishes to propose the following changes to the existing licence. Each condition and schedule of the licence has been reviewed and requested changes/deletions are indicated in the following manner:

- Suggested deletions are highlighted in [REDACTED].
- Suggested changes are highlighted in Yellow
- Agreed variations with the Agency are highlighted in [REDACTED]

**C.6 Emission Limits for Leachate Being Discharged to Sewer**

Emission Point Reference No: SD1  
 Volume to be emitted: Maximum rate per hour: 25 m<sup>3</sup> hr

Parameter	Emission Limit Value Daily Mean Concentration (mg/l)
BOD	3.000
Ammoniacal Nitrogen (NH <sub>4</sub> -N)	[REDACTED]
Suspended solids	1.000
Sulphates (as SO <sub>4</sub> )	500
pH	6 - 9
Dissolved methane	0.2

**Note 1:** The ELV for ammonia shall be agreed with the Sanitary Authority and details of this agreement shall be submitted to the Agency.

**Table D.5.3 Monitoring of Emissions to Sewer - parameters Frequency**

Emission Point Reference Point No: SD1

Parameter	Monitoring frequency	Analysis Method Technique
Flow	Continuous	Flow meter recorder
BOD	Monthly (24 hour composite)	Standard Method
Ammoniacal Nitrogen	Monthly (24 hour composite)	Standard Method
Suspended Solids	Monthly (24 hour composite)	Gravimetric
Sulphate	Monthly (24 hour composite)	Standard Method
pH	Continuous	pH meter recorder
Methane	[REDACTED] Weekly	Gas Chromatography

[REDACTED]



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## **ATTACHMENT A - NON TECHNICAL SUMMARY**

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This non-technical summary has been prepared in accordance with Article 12(1)(u) of the Waste Management (Licensing) Regulations S.I. 395 of 2004. Sub-articles (a) to (t) of Article 12 are addressed below.

For clarity, the paragraph numbering is in accordance with the numbering of Article 12(1) (a) to (t).

### **Article 12(1)**

#### **(a) General Details**

Cork City Council,  
City Hall,  
Cork

Tel.: 021-4966222  
Fax: 021-4414238

#### **(b) Planning Authority**

The development is in the functional area of Cork City Council. This proposed development is exempt from planning under Article 80 Subsection 1 H(i) of the Planning and Development Regulations 2001.

#### **(c) Sanitary Authority**

The existing site is connected to the Cork main drainage scheme via the Tramore Valley sewer. Effluent is pumped for treatment to Carrigrennan wastewater treatment plant in Little Island. The final effluent from this wastewater treatment plant is discharged to Lough Mahon. This plant is in the functional area of:

Cork County Council,  
County Hall,  
Cork

Tel: 021 4276891  
Fax: 021 4276321

#### **(d) Location**

The facility is located in the townlands of Ballyphehane, Curraghconway and Inchisarsfield, just off the South City Link Road in Cork city. The National Grid reference for the site is:

E 1681      N 6968

Drawing CE08-011-05-002 shows the location of the site.

## **(e) Nature of the Development**

### **Existing Development**

The Kinsale Road site comprises of a number of varying infrastructure including:

- Capped landfill
- Active landfill
- Civic amenity facility
- Construction and demolition (incl. timber processing area) waste recovery facility
- Composting area
- Waste electrical and electronic equipment (WEEE) collection area
- Leachate treatment plant
- Surface water management system

### **Proposed Development**

Kinsale Road landfill is in operation since 1963 and consists of unlined cells which are based on the 'dilute and disperse' principle. The site itself occupies a total area of c.70 ha. In accordance with the EU Directive on the Landfilling of Waste, landfilling activities must cease at the site in July 2009. Consequently, Cork City Council is proposing to construct a waste transfer station within the existing licenced site for the bulking up of waste prior to transporting for disposal.

The proposed development will have a maximum capacity of 22,000 tonnes per annum and will accept Cork City Council non-hazardous household and commercial waste only. Bulking up the waste will limit the number of vehicles transporting waste for final disposal to approximately two large ejector trailers per day.

The proposed location of the waste transfer station is along the western boundary of the site adjacent to the recycling area as shown on Drawing CE08-011-05-003

The type of plant proposed at the waste transfer station will include

- waste storage infrastructure
- weighbridge(s)
- vehicle parking
- hardstanding areas
- waste inspection and quarantine areas
- refuse collection vehicles
- front end loader
- compactor/ejector trailers.

### *Proposed Hours of Waste Acceptance/Handling at the Waste Transfer Facility*

Waste will be accepted between the hours of 8.00 to 18.00 Monday to Friday; 8.00 to 17.00 on Saturdays; and 7.00 to 09.00 on Sundays and Bank Holidays.

*Proposed hours of any construction and development works at the facility*

Construction and development works will be between the hours of 8.00 to 20.00 Monday to Friday; 8.00 to 17.00 on Saturdays with no work on Sundays and Bank Holidays.

*Proposed hours for housekeeping and maintenance*

Care and maintenance will be undertaken between the hours of 07.30 to 18.30 Monday to Friday; 8.00 to 5.30 on Saturdays with no work on Sundays and Bank Holidays.

**(f) Class of Activity**

In accordance with the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2003, it is proposed to carry out the following classes of activity at the facility

**Table 1: Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2003**

<b>Class 1.</b>	<b>Deposit on, in or under land (including landfill):</b>  This activity is limited to the disposal of the waste types specified in this licence up to a maximum of 100,000 tonnes per annum.
<b>Class 2</b>	<b>Land treatment, including biodegradation of liquid or sludge discards in soils:</b>  This activity is limited to the disposal of non hazardous sludge at the landfill up to a maximum of 1,500 tonnes per annum.
<b>Class 4.</b>	<b>Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons:</b>  This activity is limited to the operation of leachate and stormwater retention ponds.
<b>Class 5</b>	<b>Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment:</b>  This activity is limited to the disposal of the certain wastes in exceptional circumstances into lined discrete cells.
<b>Class 7</b>	<b>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):</b>  This activity is limited to the operation of the leachate treatment plant.
<b>Class 11</b>	<b>Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule:</b>  This activity is limited to the processing and mixing of construction and demolition waste prior to disposal at the facility.
<b>Class 12</b>	<b>Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule:</b>  This activity is limited to repackaging of waste. This activity also includes the repacking of waste at the waste transfer facility prior to the transfer and submission of this waste to a waste disposal facility
<b>Class 13</b>	<b>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:</b>  This activity is limited to the storage of waste prior to its disposal.

**Table 2: Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act 1996 to 2003**

<b>Class 2</b>	<b>Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):</b>  This activity is limited to the composting of green waste accepted subject to a limit of 1000m <sup>3</sup> at any one time at the facility and the storage of waste oils at the civic waste facility.
<b>Class 3</b>	<b>Recycling or reclamation of metals and metal compounds:</b>  This activity is limited to the recovery of metal and metal compounds at the construction and demolition facility and at the civic waste facility.
<b>Class 4</b>	<b>Recycling or reclamation of other inorganic materials:</b>  This activity is limited to the recovery of inorganic materials at the construction and demolition facility and the storage of inorganic materials at the civic waste facility.
<b>Class 10</b>	<b>The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system:</b>  This activity is limited to the use of various suitable wastes as intermediate cover and in the closure/restoration stage of the landfill subject to the agreement of the Agency.
<b>Class 11</b>	<b>Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule:</b>  This activity is limited to the use of processed wastes in roadways, drains etc. at the facility.
<b>Class 12</b>	<b>Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule:</b>  This activity is limited to the possible exchange of waste being delivered to the facility in exchange for processed waste subject to the agreement of the Agency.
<b>Class 13</b>	<b>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:</b>  This activity is limited to the temporary storage of waste prior to inspection, recycling, recovery and /or reuse at the facility or elsewhere.

Class 1 of the Third Schedule will be the principal activity at the site until landfilling ceases. Under this review, all classes remain the same however; Class 12 of the Third Schedule has been amended to include the repacking of waste at the waste transfer station.

**(g) Quantity and Nature of Waste**

A total of 22,000 tonnes per annum of waste is proposed to be accepted at the waste transfer station. The quantity of waste to be accepted at the entire facility following the closure of the landfilling activities is outlined as follows:

Waste Type	Tonnes per Annum
Municipal solid waste to waste transfer station	22,000
Construction and demolition wastes	300,000
Waste imported for restoration purposes	100,000
Green waste for composting	1,000 m <sup>3</sup> stored at any one time
Wastes accepted for storage at the civic waste facility prior to recycling, reuse and reclamation	5,000

**(h) Raw Materials**

The proposed waste transfer station will use materials, substances, fuels and energy during the day-to-day operations. The following are estimates for the annual consumption of material and energy on-site:

Diesel oil	c.20,000 litre/annum
Electricity	c.200,000 kWh per annum
Water	c.500 m <sup>3</sup> per annum

**(i) Plant, Processes and Operating Procedures**

The main operation at the proposed development will be the acceptance, handling and bulking of non-hazardous residual waste.

Loaded refuse collection vehicles (RCVs) will arrive at the facility hardstanding area and will pass over a weighbridge before reversing into the transfer station building. A system of lifting barriers and CCTV cameras at the weighbridge will control the movement and identification of RCVs arriving at the facility.

Waste will be tipped in the higher level waste handling area within the building and inspected. Only residual municipal solid waste will be accepted at the facility. The waste will be lifted using a front-end loader (FEL) and deposited into the waiting ejector trailer in the low level area of the building. Unacceptable waste will be taken to the waste quarantine area and removed offsite to be disposed of appropriately.

Empty compactor or ejector trailers will enter the facility and will unhitch and park their empty trailer in the high level area. The truck will continue to the low level area and hitch up the full compactor or ejector trailer and will exit the facility. A weighbridge will be permanently fitted within the lower level area of the building, weighing ejector trailers before and after filling. This weight information will be transmitted to the administration building via a telemetry link.

**(j) Regarding Paragraphs (a) to (g) of section 40 (4) of the Waste Management Act**

The information contained within the waste licence application form and its attachments demonstrates that the proposed facility meets the above requirements of the Act.

**(k) Emissions from the Site**

*Air*

Potential air emission will include of a point emission from the air abatement system as well as fugitive emissions of odour and/or dust released during the opening of the roller shutter doors during waste acceptance.

The fugitive emissions will be insignificant as the building will be operated under negative pressure and rapid-action doors which close immediately after vehicle entry and exit thus minimising any significant dust or odour emissions at the facility.

*Noise*

During the operation of the waste transfer station, the principal noise sources will include:

- the deliveries of material to the site
- the unloading and loading of waste within the processing building
- material handling within the processing building
- mobile plant within the building

It is not expected that noise emissions from the facility will be significant as all waste activities will take place inside the transfer building. In addition, the rapid action doors will help reduce noise emissions from the building. Noise emissions will also be limited to day-time operational hours which will reduce the noise nuisance impact on the surrounding area.

*Surface Water*

Surface water runoff from the surrounding hard-standing areas of the waste transfer station will be collected and drained to the existing surface water swales to the east of the facility. This swale discharges to the surface water lagoon to the south east corner of the site. The outlet to the lagoon is tested continuously and is released to the reed-bed percolation area before outfalling to the Tramore River.

*Sewer*

Currently, the licenced facility is connected to the Tramore Valley sewer. Wastewater and leachate from the facility is pumped to this sewer connection. It is proposed that leachate from the waste transfer building will be connected into the current leachate collection system and discharged to the Tramore Valley sewer.

*Groundwater*

There will be no direct discharges to groundwater from the proposed facility.

### *Environmental Nuisances*

Environmental nuisances such as bird, flies, dust, litter and fire have the potential to occur if not controlled. A number of mitigation measures have been incorporated into the design and operation of the facility to minimise nuisances. These include:

- All waste vehicles are fully enclosed or covered to prevent any litter entering the environment.
- The access road and hardstanding areas will be fully paved and therefore traffic generated dust will be minimal.
- Rapid action closing doors will minimise the fugitive dust and odour emissions, litter etc from the building.

The building will be fitted with fire detection and alarm systems, smoke detectors, bell sounders and manual call points placed throughout the building. The site will be served by a watermain feeding hydrants and manual fire fighting equipment like hose reels. Any fire water run-off generated will be collected and contained through the leachate and surface water collection systems and discharged to the site leachate collection system. This will prevent any environmental impacts on the receiving environment due to a fire.

#### **(l) Effects of Emissions**

An assessment of the effects of the above listed emissions on the environment has been carried out and it has been concluded that the proposed development will not significantly effects the environment. Further details on emissions can be found in Attachment E and Attachment I of the Waste Licence Application. The facility has been designed to minimise the emission of pollutants and operational procedures will be implemented to reinforce these design features.

#### **(m) Monitoring and Sampling Points**

Environmental monitoring will be undertaken at the proposed facility for surface water, air (filtration emissions, dust and odour), sewer and noise emissions. Proposed monitoring points are indicated on drawing CE08-011-05-006 – Proposed Monitoring Location Map at a frequency to be agreed with the Agency.

All environmental monitoring will be carried out by qualified persons and any laboratory analysis that is required will be carried out at the onsite Cork City Council laboratory or at an approved off-site laboratory. All monitoring will be carried out according to established procedures, approved by the Environmental Protection Agency.

#### **(n) Arrangements for Waste Arising from Activity**

Staff employed at the waste transfer station will use the existing administration office, canteen and welfare facilities which will result in the generation of small quantities of municipal waste. This waste is recovered onsite at the civic amenity as far as possible and the remaining waste will be incorporated into the waste collected at the waste transfer building and transported office site for disposal.



Leachate generated within the waste transfer facility will be collected in the leachate management system and conveyed to the on-site leachate conditioning plant.

**(o) Arrangements for Off-Site Treatment or Disposal of Wastes**

The bulked up waste from the waste transfer station will be transported to an appropriate licenced facility for disposal/recovery

Leachate generated at the facility will be discharged to the existing sewer connection.

**(p) Unauthorised or Unexpected Emissions**

The material delivered to the facility will be inspected and only acceptable waste will be accepted at the facility. Any unsuitable material will be rejected.

Staff will be present onsite at all times during opening hours to supervise and carry out operations and to deal with any emergencies. A CCTV security system is installed onsite. Key staff will be on-call to respond to any emergency situation outside of normal working hours e.g. night-time, weekends and public holidays.

An emergency response procedure has been prepared and implemented at the facility to prevent accidents and minimise any effects on the environment from accidental emissions or emergency situations, including:

- Activation of Office Fire or Gas Alarms
- Procedure for Dealing with Hot or Burning Loads
- Procedure for Dealing with Fires and Explosions on Site
- Procedure for Dealing with Flooding
- Procedure for Dealing with Uncontained Spillage / Leakage
- Procedure for Dealing with a Notifiable Injury
- Procedure for Dealing with a Landfill Gas Emergency
- Procedure for Dealing with Power Failure

All of these existing procedures will apply to the new waste transfer station.

**(q) Closure and Restoration**

It is anticipated that the facility will be operated indefinitely. However if the facility should close for some unforeseen reason all waste and all equipment will be removed from the facility. Waste would be removed to authorised facilities. Equipment will be recycled where possible. The building where waste activities occur would, (if permissible) remain and would likely be used for another purpose.

If a decision is taken to decommission the facility, the Agency will be notified at least six months in advance of the closure and an aftercare management plan will be prepared and submitted to the Agency within this time period.

Activities at the site are unlikely to result in either groundwater or land contamination as the entire site is made up of concrete hardstandings and there is no permanent storage of waste on site. The nature of activities that occur at the site will ensure that no remediation of the site will be necessary in the event of closure of the facility.

**(r) Financial Provisions**

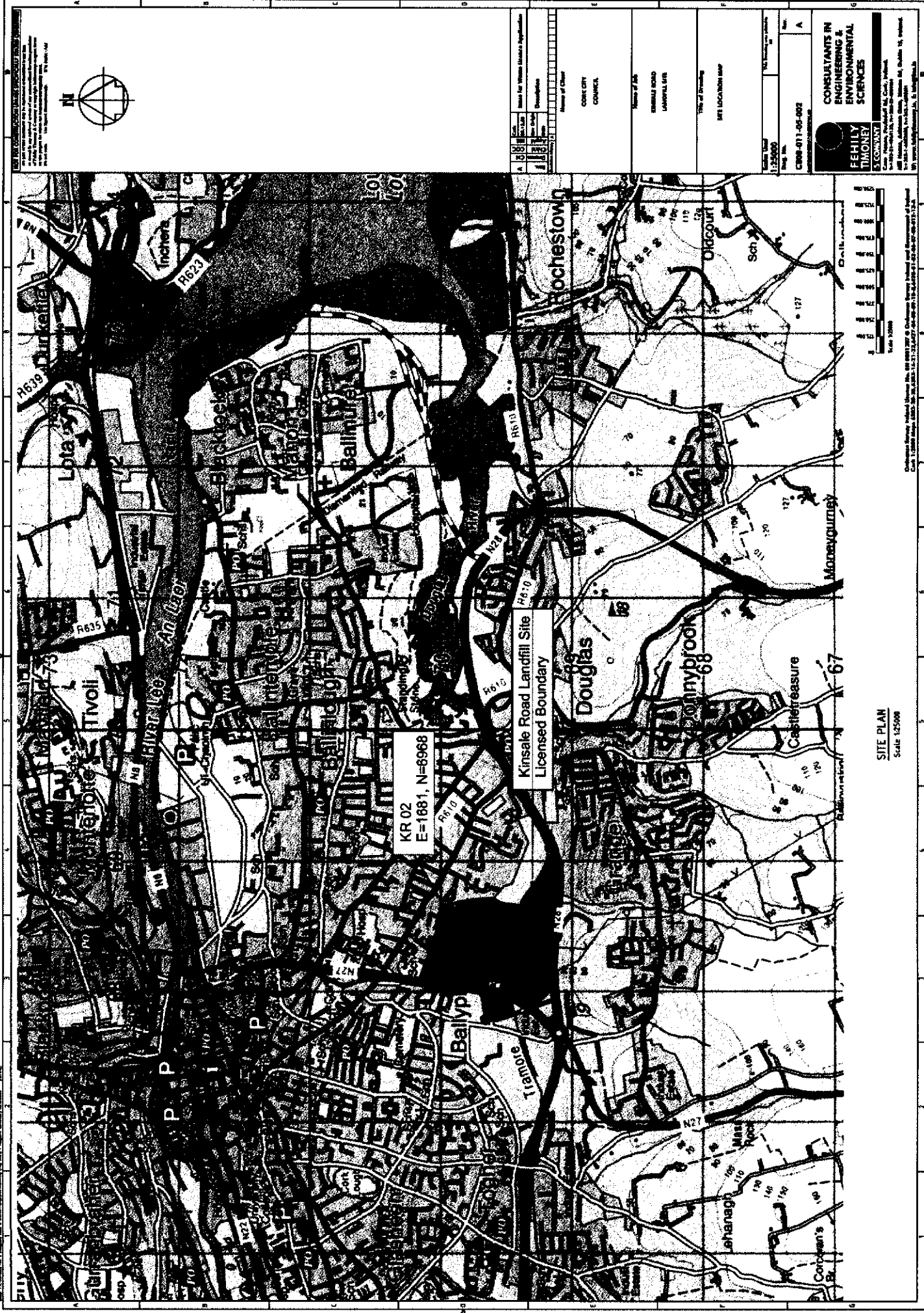
Existing financial provisions for the restoration and aftercare of the landfill facility will continue. The proposed waste transfer station will not increase the overall liability of the facility; therefore additional financial provisions are not required for this development.

**(s) European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulation 2000**

The above Regulations do not apply to the proposed development.

**(t) Geological and Hydrogeological Nature of the Lands**

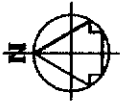
There will be no direct discharges to groundwater from the proposed development. However, as part of this waste licence review, a hydrogeological assessment of the entire site is being conducted.



KR 02  
E-1881, N-8968

Kinsale Road Landfill Site  
Licensed Boundary

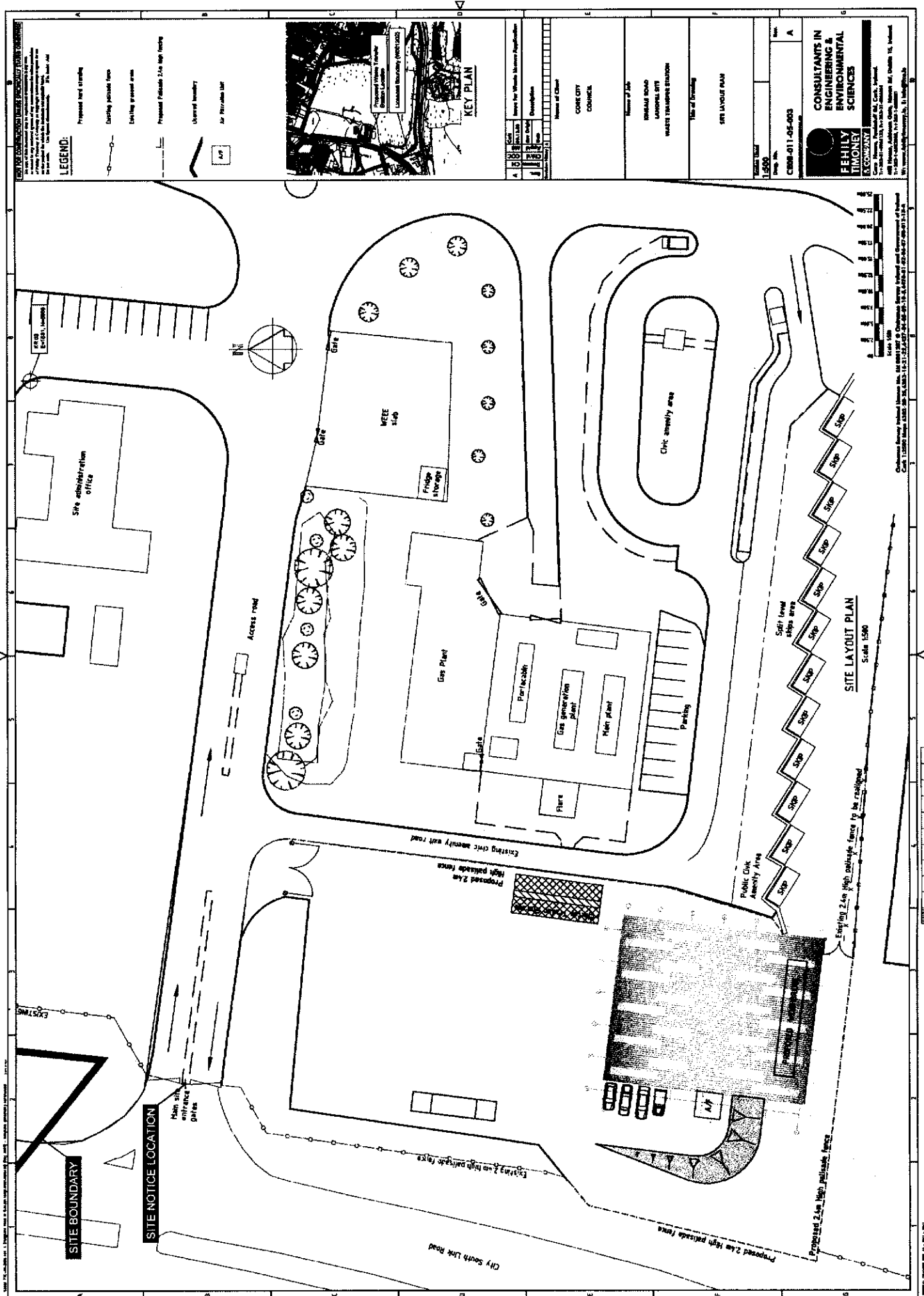
SITE PLAN  
Scale 1:25000



NOT TO SCALE  
THIS PLAN IS A PRELIMINARY DESIGN AND SHOULD NOT BE USED FOR CONSTRUCTION WITHOUT THE APPROVAL OF THE LOCAL AUTHORITY.  
THE LOCAL AUTHORITY IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED IN THIS PLAN.  
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Scale for Written (Metric) Application	
A 1:25000	1:25000
B 1:50000	1:50000
C 1:75000	1:75000
D 1:100000	1:100000
E 1:150000	1:150000
F 1:200000	1:200000
G 1:250000	1:250000
Name of Client	
COUNTY COUNCIL	
Name of Site	
KINSALE ROAD LANDFILL SITE	
Type of Drawing	
SITE LOCATION MAP	
Date	12/20/2000
Page No.	A
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**SITE BOUNDARY**

**SITE NOTICE LOCATION**

Site administration office

Gas Plant

Particle plant

Gas generation plant

Water plant

Frigate storage

WEEE slab

Civic amenity area

Public Civic Amenity Area

**SITE LAYOUT PLAN**  
Scale 1:500

**LEGEND:**

- Proposed fence marking
- Existing parking lines
- Existing ground area
- Proposed 2.4m high fence
- Unexcavated boundary
- Air Pollution Unit



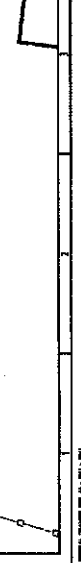
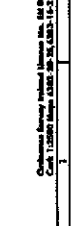
Area	Area (sq m)	Area (sq ft)
Site	1,500	16,500
Public Civic Amenity Area	1,500	16,500

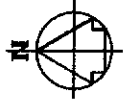
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DATE: 15/05/2007  
PROJECT NO: 07-003  
DRAWING NO: 07-003-01

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**Legend:**

- DM: Ozone Monitoring  
E.N. 8076 14637670
- SD: Sewer Monitoring  
E.N. 8076 14637670
- SPI: Stormwater/Sediment Monitoring  
(current location under W012-02)  
E.N. 8054 14639305
- AM: Air Monitoring  
E.N. 8026 14639378



Code	Description
A	Area for Waste Material Application
B	Waste Treatment Station
C	Stormwater Storage Pond
D	Lottery Boundary
E	Proposed Water Treatment Area

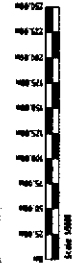
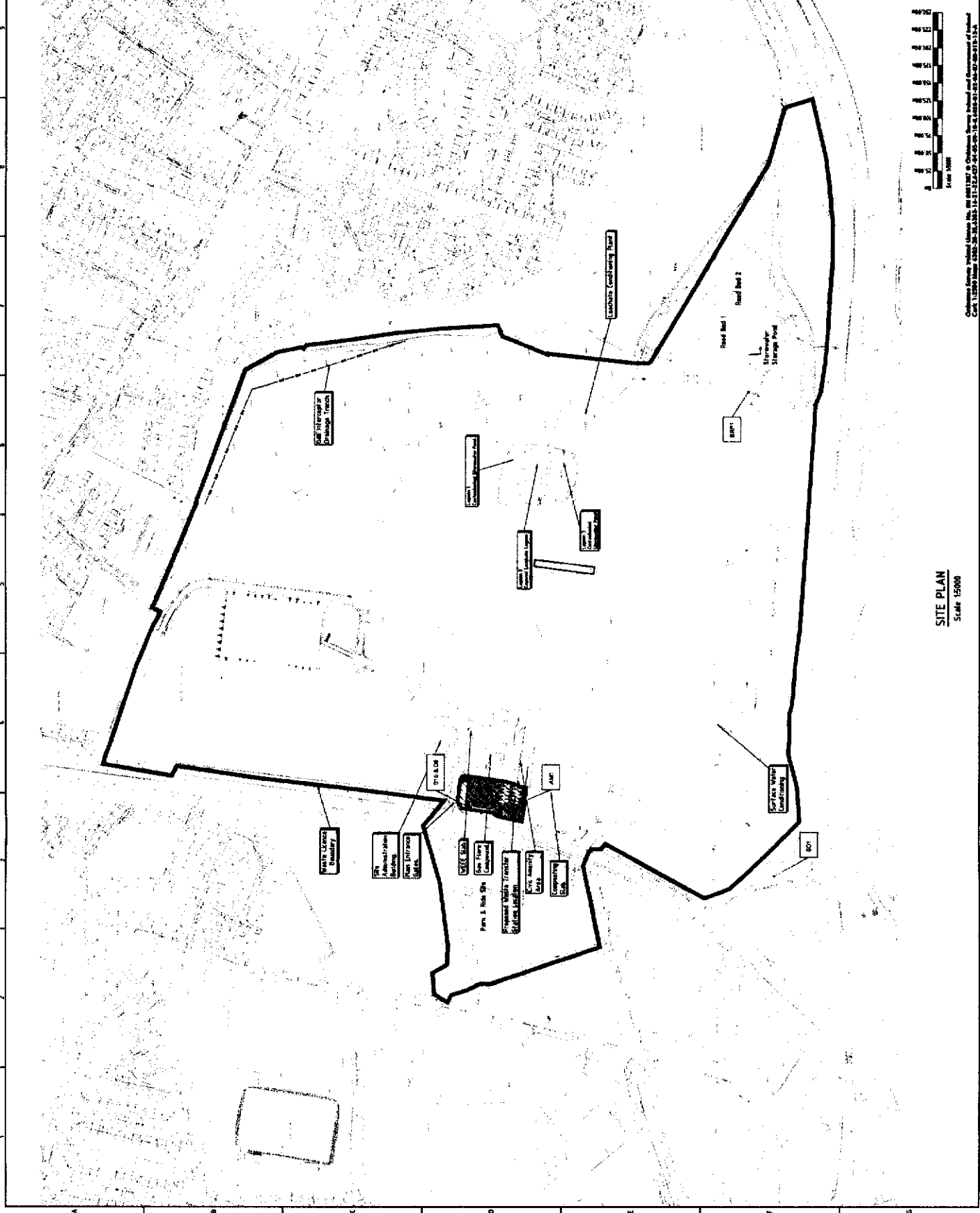
Name of Client  
 CORE CITY  
 COUNCIL

Name of Job  
 SMALL ROAD  
 LANDFILL SITE

Type of Drawing  
 PROPOSED ENVIRONMENTAL IMPROVEMENTS  
 LOCATION FOR  
 WASTE TREATMENT STATIONS

Project No.  
 15000  
 Date  
 08-01-03-014

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**SITE PLAN**  
 Scale: 1:5000

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