

Reg No. W0012-03 Kinsale Road Landfill  
 Please note there are 9 submissions on  
 this application. They are available for  
 viewing on EDMS.

This memo has been cleared for  
 submission to the Board by  
 Senior Inspector, Mr Brian Meaney  
 Signed: Sanjay Smith Date: 07/10/10

**RESOURCE USE**

<b>INSPECTORS REPORT ON A LICENCE APPLICATION</b>	
<b>To:</b>	DIRECTORS
<b>From:</b>	STUART HUSKISSON - <b>ENVIRONMENTAL LICENSING PROGRAMME</b>
<b>Date:</b>	06 <sup>TH</sup> OCTOBER 2010
<b>RE:</b>	APPLICATION FOR REVIEW OF A WASTE LICENCE FROM CORK CITY COUNCIL, KINSALE ROAD LANDFILL, BALLYPHEHANE, CURRAGHCONWAY, INCHISARSFIELD, SOUTH CITY LINK ROAD, COUNTY CORK (CURRENT LICENCE REGISTER. NO. W0012-02). LICENCE REGISTER NO. W0012-03

Type of facility:	Non-Hazardous Landfill and Waste Transfer Station
Classes of Activity	3 <sup>rd</sup> Schedule: 1 (P), 2, 4, 5, 7, 11, 12 & 13
(P = principal activity):	4 <sup>th</sup> Schedule: 2, 3, 4, 10, 11, 12 & 13
Quantity of waste managed per annum:	328,050 tonnes per annum (Maximum)
Classes of Waste:	Non-hazardous household waste, commercial waste, construction and demolition (C&D) waste, inert waste imported for restoration purposes, green waste for composting and a small quantity of hazardous waste accepted at the Civic Waste Facility.
Location of facility:	Kinsale Road Landfill, Ballypnehane, Curraghconway, Inchisarsfield, South City Link Road, County Cork.
Licence application received:	10 <sup>th</sup> December 2008
Third Party submissions:	Nine valid submissions received.
EIS Required:	No
Article 14 Notices sent:	09 <sup>th</sup> March 2009 and 28 <sup>th</sup> September 2009
Article 14 compliance date:	13 <sup>th</sup> November 2009
Supplementary material submitted by licensee	13 <sup>th</sup> November 2009, 31 <sup>st</sup> December 2009
Site Notice Inspected:	28 <sup>th</sup> January 2009
Site Inspection:	13 <sup>th</sup> February 2009

**1. Facility**

Cork City Council applied for a licence review to operate a Waste Transfer Station on the site of the Kinsale Road Landfill facility, existing waste licence Reg. No. W0012-02. The site is located in the townlands of Ballypnehane, Curraghconway and Inchisarsfield, just to the north of the South City Link Road in Cork City.

The Kinsale Road Landfill has been in existence since 1963 and consists of unlined cells. The facility, including historically landfilled areas, is c. 72 hectares in size. In accordance with the Landfill Directive (1999/31/EC) and the Waste Management (Licensing) Regulations, (S.I. 337 of 2002), the landfilling activities at the facility were required to cease by the 16<sup>th</sup> July 2009 and did so on this date. Due to the requirement to cease landfilling, Cork City Council have applied to operate

a Waste Transfer Station within the existing licensed facility boundary for the purpose of bulking wastes prior to the transportation to other waste facilities for disposal.

The proposed Waste Transfer Station has a maximum capacity of 22,000 tonnes per annum and will accept non-hazardous household and commercial waste only. The licensee states that the bulking of waste in the Waste Transfer Station will limit the number of vehicles required to transport the waste to a final disposal facility (approximately two large ejector trailers per day).

The Waste Transfer Station will include:

- Waste Transfer Station building;
- Weighbridge;
- Vehicle parking;
- Hardstanding areas; and
- Waste inspection and quarantine areas.

The licensee will operate the Waste Transfer Station from 08.00 to 18.30 Monday to Friday, 08.00 to 17.30 on Saturdays with no work on Sundays and Bank Holidays. Waste acceptance hours included in the Recommended Determination (RD) are as requested by the licensee, i.e. between the hours of 08.00 to 18.00 Monday to Friday, 08.00 to 17.00 Saturday, with no acceptance or despatch of waste on Sundays and bank holidays, with the exception of emergencies or as agreed by the Agency. This is to allow 30 minutes before closing time for clean up work, etc. The transfer station activity will employ c. 2 people. The landfill facility manager, supervisor and foreman will also have responsibilities for the management of the waste transfer station activity.

The current activities carried out at the facility include a Civic Waste Facility, green waste composting, management of leachate, surface water and landfill gas and the utilisation of landfill gas collected at the facility. C&D waste recovery (incl. crushing, screening, sorting, blending, use) was previously carried out at the facility but has been suspended since 2006 due to the lack of this waste arriving at the facility. The licensee requested an increase in the amount of green/wood waste that may be composted, from 1,000m<sup>3</sup> at any one time, to 2,400m<sup>3</sup> at any one time. Based on the existing composting hardstanding area of c. 1,650 m<sup>2</sup> the licensee has demonstrated that up to 2,750m<sup>3</sup> of green/wood waste compost could be stored/composted at any one time. Therefore it is considered that there is adequate capacity to compost the additional green/wood waste volume, which is provided for in the RD. There are no proposed substantive changes to the current activities carried out at the facility under the existing licence (W0012-02), other than the cessation of waste landfilling as outlined above and an increase in the green waste composting capacity, as detailed above.

In information submitted as part of the licence review Cork City Council provided advance notice of the ambition to create an energy park on the site of the landfill facility, which is proposed to encompass a number of initiatives including solar panels, geothermal heating, a wind turbine and a bio-methane plant. When detailed information is available on the proposals for the facility, the licensee is required to discuss these with the EPA and to obtain formal approval prior to implementation. **Condition 11.23** requires the licensee to demonstrate, in advance, that a change in use of any area of the site will not impact on the integrity of the facility's environmental controls. Detailed information in relation to the development of a biomethane plant was not submitted as part of this licence review application and a further licence review may be required in advance of this activity.

Note that the conditions included in the RD which are unchanged, from the wording as included in the existing licence (W0012-03), are not highlighted in bold in the RD.

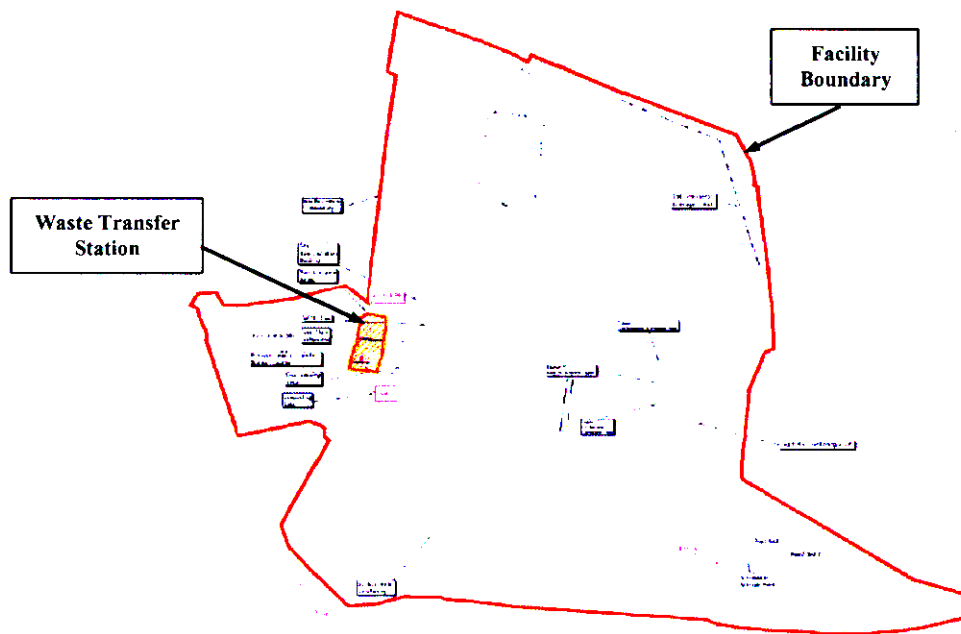
### 1.1 Reasons for the Licence Review

Cork City Council (formerly Cork Corporation) was originally licensed on the 2<sup>nd</sup> February 2000 to operate the Kinsale Road Landfill (Reg. No. W0012-01). In 2002 the waste licence was reviewed to increase the void space of the landfill by changing the layout of the final waste profile post settlement. The revised licence (Reg. No. W0012-02) was issued on 29<sup>th</sup> November 2002.

The primary reason for this licence review (W0012-03) is to provide for the operation of a Waste Transfer Station at the existing licensed facility, to amend the landfill conditions in relation to the cessation of landfilling at the facility as required by the Landfill Directive (1999/31/EC) and to

reflect the revised final pre-settlement contour of the landfill facility agreed with the Office of Environmental Enforcement (OEE).

### **Facility Boundary and Layout**



## **2. Operational Description**

The proposed Waste Transfer Station will consist of a weighbridge, a concrete hardstanding area and a Waste Transfer Station building, to be operated under negative air pressure with an odour/dust abatement system (activated carbon). Waste delivery vehicles will be weighed and directed into the Waste Transfer Station building. The waste will be unloaded only inside the transfer station building. Traffic flow arrangements for waste arriving and departing the facility are shown in Appendix I). Each waste delivery will be inspected and unsuitable wastes will be stored in a waste quarantine area for removal off-site to an appropriate facility. **Condition 3.21** requires the licensee to provide a designated Waste Inspection Area and a Waste Quarantine Area within the Waste Transfer Station building prior to the commencement of this scheduled activity.

Acceptable wastes deposited in the higher level of the transfer station building will be transferred into an ejector trailer by a front-end loader. When full, the ejector trailer will be weighed and removed from the site to an appropriate waste facility.

The doors of the transfer station building will be fast activating to minimise nuisance caused by odour and dust emissions and to assist in maintaining negative air pressure within the building. **Condition 3.31** requires fast-action doors (or equivalent approved by the Agency) to be installed and maintained on the entry/exit points of the Waste Transfer Station prior to the commencement of this scheduled activity. The machinery used will include a front-end loader and a shunt truck for the movement of empty ejector trailers.

The existing landfill facility has been in operation since the early 1960's. The landfilling of waste at the facility ceased on 16<sup>th</sup> of July 2009, in accordance with the requirements of Landfill Directive. Gas extraction with flaring is in operation on site. Leachate is collected, aerated in a leachate conditioning plant prior to being discharged to sewer. The capping engineering is considered BAT. The area of landfill that is at present permanently capped is c. 75% of the landfill footprint. The remainder of the site that has accepted waste more recently is to be capped over the next c. two years. The licensee has requested that the requirement for permanent capping of the remainder of the site be extended from within 12 months (as included in existing licence (W0012-02)) to a period of c. 30 months from cessation of landfilling, for the following reasons: (i) the settlement in the area most recently landfilled (October 08 - July 09) will be greater due to the rate of filling and therefore a longer period for primary settlement is recommended; (ii) allowing the primary settlement to take place reduces the long-term maintenance difficulties to the landfill gas collection infrastructure; (iii) approximately 90,000m<sup>3</sup> of sub and top soil is required as part of the capping of Areas 10a and 10b

(i.e. the remaining area of the site). Cork City Council advise that in the current economic climate and with the lack of development being undertaken it is unlikely that sufficient material will become available within one year to carry out permanent capping works; and (iv) recent waste licences have required filled cells to be capped within 24 months and this extended duration recognises the need for primary settlement to occur prior to the installation of the permanent cap.

For the reasons above it is considered appropriate to allow the time period of 30 months as requested by the licensee for final capping of the landfill footprint. **Condition 3.16** of the RD requires that final capping of Area 10A be completed by 01<sup>st</sup> March 2011 and Area 10B by 01<sup>st</sup> February 2012. The OEE have agreed in principle to the final capping proposals for area 10A and 10B under the existing licence (W0012-02), subject to requirements specified in letter W0012-02/AP09SMcD.doc - dated 19<sup>th</sup> February 2010. (The final pre-settlement contour was selected to minimise the amount of temporary cap/existing waste to be excavated and moved to achieve the contour profiles (c. 3725m<sup>3</sup>), minimise the environmental impact arising from potential odours, optimise layout of gas extraction wells and achieve a user friendly recreational/activity parkland). Cork City Council provided a revised final capping contour (Pre-Settlement Level) map which is referenced in **Condition 10.3** of the RD.

Table 1 below includes the waste types and quantities, as specified in the RD, which may be accepted at the facility.

**Table 1. Proposed Waste Types and Quantities**

<b>Waste Type</b>		<b>Maximum <sup>Note 2</sup> (Tonnes Per Annum)</b>
<b>Non-Hazardous Wastes <sup>Note 1</sup></b>	Municipal Waste for recovery/disposal off-site <i>Accepted at Civic Waste Facility</i>	5,000
	Storage of Waste prior to Recovery <i>(including glass, beverage/food cans, textiles, paper and cardboard, plastics, timber, metals, non-hazardous batteries, non-hazardous WEEE accepted at Civic Waste Facility)</i>	
	Construction & Demolition Waste <i>Accepted at the facility for recovery and use in site construction works and landfill restoration.</i>	300,000 <sup>Note 3</sup>
	Residual Municipal Waste for off-site recovery and/or disposal <i>Accepted at Waste Transfer Station</i>	22,000 <sup>Note 4</sup>
	Green Waste (for Composting) <i>Accepted at Civic Waste Facility</i>	<sup>Note 5</sup>
	Inert Waste - Imported for restoration purposes	<sup>Note 6</sup>
<b><i>Non-Hazardous Waste Total</i></b>		<b><i>327,000</i></b>
<b>Hazardous Wastes <sup>Note 7</sup></b>	20 01 21 Fluorescent Tubes and other mercury-containing waste	6
	20 01 27 16 05 04 Paints, inks, adhesives and resins containing dangerous substances Gases in pressure containers (including halons) containing dangerous substances	20
	20 01 34 Batteries and accumulators other than those mentioned in 20 01 33	12
	All Chapter 13 Wastes <sup>Note 8</sup> Waste Oils	12
	20 01 35 Discarded electrical and electronic equipment other than those mentioned in 20 01 21 & 20 01 23 containing hazardous components.	1,000
<b><i>Hazardous Waste Total</i></b>		<b><i>1,050</i></b>
<b>TOTAL - INCLUDING DISPOSAL AND RECOVERY</b>		<b>328,050</b>

- Note 1: Any proposals to accept other compatible non-hazardous waste types must be agreed in advance by the Agency.
- Note 2: The limitation on individual non-hazardous waste types may be varied with the agreement of the Agency subject to the total limit for non-hazardous waste staying the same.
- Note 3: The maximum tonnage to be processed at the Construction and Demolition Waste Recovery Area shall not exceed 2,000 tonnes per day, unless subject to the prior agreement of the Agency, subject to Condition 3.27.
- Note 4: Acceptance of Residual Municipal Waste at the facility for off-site disposal, other than that received at the Civic Waste Facility from members of the public, shall not take place until such time as the Waste Transfer Station infrastructure has been installed to the satisfaction of the Agency in accordance with Condition 8.2 of this licence.
- Note 5: Quantity of Green Waste/ Compost at the facility is limited to a maximum of 2,400m<sup>3</sup> at any one time.
- Note 6: Quantity of waste imported for restoration purposes is limited to 100,000 tonnes per annum for a period of two years from the date of grant of licence, unless otherwise agreed by the Agency.
- Note 7: Hazardous waste types as detailed, or as may otherwise be agreed in advance by the Agency.
- Note 8: All Chapter 13 wastes: *Oil Wastes and Wastes of Liquid Fuels* (except, 13 01 01, 13 03 01, 13 05 01, 13 05 02, 13 05 03, 13 07 01, 13 07 02, 13 07 03 and 13 08 01) of the *European Waste Catalogue and Hazardous Waste List*.

### 3. Emissions

#### 3.1 Emissions to Atmosphere

The principal emissions to atmosphere from the facility are landfill gas, the combustion products of landfill gas and the fugitive emission of odorous gases from the leachate treatment system. These emissions and their control will remain largely unchanged by this licence review. The final capping of the full landfill footprint, to be completed by 01<sup>st</sup> February 2012, will help to minimise fugitive emissions of landfill gas and odours to atmosphere. Following the closure and restoration of the landfill the potential for odour emission will mainly arise from the Waste Transfer Station activity.

##### Waste Transfer Station

Potential for odour nuisance from the Waste Transfer Station may arise due to the handling of municipal waste and residual waste containing organic material.

Odour management at waste transfer stations that accept waste with a biodegradable fraction have previously been the cause of a significant number of odour complaints. **Condition 3.31** of the RD requires that, prior to the acceptance of waste at the Waste Transfer Station; the building shall be fitted with a continuous negative air pressure system with the extracted air subject to treatment via an odour abatement system (e.g. activated carbon filtration, as detailed in the licence application). Odour abatement of this type is considered to represent BAT for this facility.

The RD requires the licensee to submit a report on the effectiveness of the odour management system to the Agency within nine months of acceptance of waste at the Waste Transfer Station.

The following conditions deal with prevention of nuisance caused by odour/dust:

**Condition 8** requires that all waste transfer and handling activities take place indoors.

**Condition 3** and **6** require the licensee to control or prevent nuisance from the site activity.

**Condition 3** requires that, prior to the acceptance of waste at the Waste Transfer Station, fast-action doors (or equivalent approved by the Agency) shall be installed and subsequently maintained on the entry/exit points of the Waste Transfer Station building. The licensee is required to ensure that these and all other doors be kept closed except when allowing entry/exit.

**Condition 6.33** requires the floor of the Waste Transfer Station to be cleared of all waste at the end of the working day. The floor of Waste Transfer Station shall be cleaned at least weekly. All waste handling plant shall be washed down on a weekly basis.

#### 3.2 Emissions to Sewer

The discharges to sewer from the existing activities at the facility, as authorised under waste licence (W0012-02), remain unchanged (i.e. treated leachate and contaminated storm water treated in a storm water conditioning plant). Additional emissions to sewer shall arise from the Waste Transfer Station wash down operations, including the discharge of any leachate from waste stored in the Waste Transfer Station building. This effluent will be collected inside the building in a system of gullies and will pass through a silt trap and Class II (by-pass) separator before being discharged to the on-site leachate collection system. These emissions will be treated in the leachate conditioning plant prior to being discharged to the Cork County Council sewer. The discharges to sewer are treated at the Carrigrennan waste water treatment plant (Cork City Agglomeration), located on Little Island. The Cork City Agglomeration is licensed under Waste Water Discharge Licence (WWDL) Reg. No. D0033-01, which issued on 17<sup>th</sup> December 2009. The Waste Water Treatment Plant (WWTP) has an organic capacity of 413,000 p.e and the current organic loading to the plant is estimated to be 254,000 p.e. Therefore, there is adequate capacity within the Carrigrennan WWTP to treat the discharge from this facility.

A Section 52 consent was obtained from Cork County Council. The RD contains the appropriately worded consent conditions and emission limit values as specified by the Water Services Authority.

**Condition 6.22.6** of the RD requires the licensee to examine the feasibility of providing on-site treatment of leachate within two years of the date of grant of licence.

#### 3.3 Emissions to Waters

There are no proposed emissions to surface water from the Waste Transfer Station activity. There is one proposed silt trap and separator on the surface water collection system. Storm water run-off from the hard-standing areas surrounding the Waste Transfer Station will be collected and drain, via

a silt trap and separator to the existing surface water collection system via a swale to the east of the facility. This swale discharges to the surface water lagoon at the south east corner of the facility. The outlet for the lagoon is tested continuously (flow, TOC, pH and conductivity) and is released to a reed-bed percolation area before discharging to the Tramore River.

A C&D waste recovery activity was previously carried out at the facility in an area towards the northerly boundary, with the storm water from this area diverted through a silt trap and separator. Due to the construction of a playing pitch on the site of the facility in 2008/2009, the silt trap and interceptor that served this area have been decommissioned. It is noted that the C&D waste recovery operation has been suspended since 2006, due to the small volumes of this waste arriving at the facility. The licensee wishes to retain permission to process up to 300,000 tonnes of C&D waste per annum, as included in their existing licence (W0012-02), to cater for potential future needs. **Condition 3.27** requires the licensee, in advance of commencement of C&D waste recovery at a revised location, to provide and maintain a C&D waste recovery area in accordance with a proposal as may be agreed by the Agency as a Specified Engineering Works. The licensee is also required to divert storm water run-off from this area to a silt trap and interceptor prior to discharge from the facility.

The RD retains the monitoring parameters and frequency for storm water emissions as specified under the existing licence (W0012-02) and includes some additional parameters (SRP5: pH and BOD quarterly, Nitrate and Total P/orthophosphate annually and additional parameters as may be specified by the Agency based on an increased concentration measured at SRP1). The licensee carried out an assessment of target levels for surface water discharges for a number of key parameters including conductivity, TOC and pH in 2003. This assessment concluded that it was not possible to establish trigger levels due to the absence of flow data for the Tramore River. The licensee proposed to install flow measurement instrumentation in the Tramore River upstream of the landfill discharge to obtain continuous flow monitoring data. The RD includes interim trigger levels for conductivity, TOC and pH and requires the licensee to submit trigger levels for these parameters within three months of the date of grant of licence, based on recent flow monitoring data.

The RD removes the requirement to carry out weekly monitoring of the suspended solids level in the storm water discharged to reed bed No. 1 (SRP2) and the outlet from reed bed No. 1 to reed bed No. 2 (SRP3) as requested by the licensee. Monthly suspended solids monitoring is retained on the inlet to the storm water retention pond (SRP1) and the outlet from reed bed No.2 to the Tramore River (SRP5).

During 2009, on occasions, elevated levels of ammonia were identified in the storm water discharging from the storm water retention pond to the reed bed treatment system (as reported in the Annual Environmental Report (AER) for 2009), with a maximum concentration of 27mg/l on one occasion. In order to address elevated Ammonia concentrations the RD requires the licensee, within three months of the date of grant of licence, to submit proposed warning and action levels for Ammonia entering the storm water retention pond prior to reed bed treatment (SRP1) to protect the reed bed, for agreement by the Agency. **Condition 6.15.5** of the RD also requires the licensee, within three months of the date of grant of licence, to submit proposed warning and action levels for the Ammonia concentration of the discharge from the reed bed system to the Tramore River (SRP5), for agreement by the Agency. This warning and action level shall be determined having regard to the European Communities Environmental Objectives (Surface Waters) Regulations, 2009 (S.I. 272 of 2009). If an action level is exceeded, the flow shall be re-circulated in the reed bed or discharged to sewer via SD1, until such time as the elevated levels have been reduced.

In September 2008 the licensee carried out an assessment of the water quality status of selected sites on the River Tramore (adjacent to landfill to the South) and River Trabeg (adjacent to the landfill to the East). Both rivers flow within the facility boundary close to the landfill area. The River Tramore upstream of the landfill showed a slight deterioration with the quality dropping from a Q3 to Q2. The River Tramore monitoring site within the facility boundary showed no obvious improvement on the 2007 results. The River Tramore (waterbody code: IE\_SW\_19\_1717) is classified in accordance with the Water Framework Directive as 1a 'at risk of not achieving good status' by 2015. The assessment concludes that the River Trabeg has very marginally improved compared to 2007, which may relate to greater rainfall during the summer of 2008. The River

Trabeg is not classified under the Water Framework Directive. The RD retains the requirement for annual ecological monitoring of the River Trabeg and River Tramore, at locations upstream and downstream of the facility.

Due to the proposed development of a Waste Transfer Station at the facility, **Condition 3.10** of the RD requires the licensee to carry out a revised risk assessment to determine if the activity requires a firewater retention facility. The findings of any such assessment shall be implemented within three months from date of notification by the Agency.

### **3.4 Emissions to ground/groundwater:**

All waste handling and storage areas at the Waste Transfer Station are required to have an impermeable hard standing surface. The Civic Waste Facility and WEEE storage areas also have an impermeable hard standing surface. Surface runoff from around the Waste Transfer Station building will be diverted to the existing surface water collection system (see Section 3.3 above).

**Condition 3.23** of the RD, in relation to the on-site wastewater treatment system and percolation area, has been updated to refer to the criteria set out in the *Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses* ( $p.e \leq 10$ ).

Groundwater monitoring at the facility will take place at seventeen groundwater wells located around the perimeter of the landfill facility in accordance with *Schedule C.8.2 - Groundwater Monitoring*. Cork City Council requested the removal of four groundwater monitoring wells on the basis that these are considered by the licensee to be located within the waste body. The RD retains the requirement to monitor all of these wells due to their proximity and depth in relation to the elevated groundwater concentrations of Ammonia to the east of the landfill, identified in the hydrogeological assessment report which accompanied the review application (See Section 10.5 of this report). **Condition 6.8** of the RD allows for the frequency, methods and scope of monitoring to be amended with the agreement of the Agency following the evaluation of test results.

Trigger levels, and in one instance interim trigger levels, (for Ammonia, conductivity and TOC) were agreed in 2003 for three groundwater monitoring boreholes (NW3, NW7 and NW9). Due to the significant fluctuation in monitoring results interim trigger levels were agreed for Ammonia and for TOC at borehole NW7. (The interim values were proposed until such time as remedial measures were implemented). As indicated in the agreement letter issued to the licensee in 2003, the trigger level values should be reviewed periodically. Due to: (i) the time period since the establishment of the trigger/interim trigger levels; (ii) the location of the boreholes; and (iii) the elevated groundwater concentrations more recently identified to the east/south-east area of the landfill, the RD requires the licensee to revise the existing groundwater trigger levels. **Condition 6.16** of the RD requires the licensee, within three months of grant of licence, to establish revised groundwater trigger level values for monitoring boreholes NW3, NW4, NW6 & NW7. (The locations of these boreholes are shown in Appendix II: Monitoring Location Map). These four boreholes are located to the east/south-east of the landfill, in the general direction of groundwater flow, and the setting of trigger levels in these locations will ensure that the actions taken to remediate the elevated groundwater contaminant concentrations which have been identified in this area can be effectively evaluated.

Section 10.5 of this report (Groundwater Directive [2006/118/EC]) includes additional information in relation to groundwater monitoring results and the requirements specified in the RD in relation to groundwater.

### **3.5 Wastes Generated:**

The Waste Transfer Station facility will generate small quantities of office waste and municipal waste from the administration and canteen facilities. This waste will be recovered on-site at the Civic Waste Facility, where possible. Small quantities of lubricating oils and plant maintenance waste will be sent, as appropriate, for off-site recovery/disposal. Other wastes such as reject loads will be diverted to an appropriate facility. Leachate generated within the Waste Transfer Station will be discharged to the leachate conditioning plant and discharged to the Cork County Council sewer for treatment at the Carrigrennan WWTP.

Waste handled in the Waste Transfer Station will be bulked up and sent on to an appropriate waste facility. (Waste bulked up at the Waste Transfer Station is proposed to be transferred to Youghal Landfill (Reg. No. W0068-02), as an interim arrangement, until such time as the Bottlehill Landfill (Reg. No. W0161-01) is commissioned and available to accept the waste).

In order to cater for the requirement to obtain information in relation to the pre-treatment of municipal solid waste and its biodegradable municipal waste content the RD includes additional new conditions in relation to characterisation of waste sent off site for disposal at a landfill facility (**Condition 8.15, Condition 11.22, Schedule C.5**). **Condition 11.22** of the RD also includes a requirement for the licensee to provide records to a landfill operator where waste is dispatched to landfill and such records are required by the landfill operator, as evidence for the purpose of demonstrating compliance with pre-treatment and/or biodegradable municipal waste diversion obligations.

### **3.6 Noise:**

Noise emissions from the facility mainly arise from the operation of plant, truck movements and flaring of landfill gas. The main additional noise sources from the proposed Waste Transfer Station will arise from the: (i) entry and exit of waste vehicles from the facility; (ii) operation of the equipment within the waste transfer building (including air extraction system); and, (iii) unloading and loading of waste within the transfer building.

Noise emissions will be controlled and minimised as all waste handling activities will take place inside the transfer station building. The building enclosure will attenuate and reduce noise emissions significantly.

The landfill facility is located adjacent to the Kinsale Road (N27), and close to the Kinsale Road roundabout at the junction of the N27 (Cork City Link Road) and N28 (Cork South City Ring Road).

It is expected that noise will not be discernable outside the boundary of the facility. It is considered that the noise impact of the proposed Waste Transfer Station facility will be negligible, particularly given the noise climate of the area.

Noise monitoring is carried out under the existing licence at four locations at the facility boundary and two locations at noise sensitive locations (NSLs). The NSLs are located: (i) c. 20m to the north of the facility boundary (c. 250m from proposed Waste Transfer Station); and (ii) c. 60m east of the facility (c. 310m from proposed Waste Transfer Station). The day time noise monitoring carried out in 2007 exceeded the limit of 55 dB(A) at three boundary locations and two NSLs. The elevated noise levels at these five locations was attributed to heavy traffic noise from the South Ring Road, traffic noise from the South City Link Road, bird noises and school children activity. It was noted during the monitoring that noise from the landfill was not discernable at any of the monitoring locations.

The RD retains the requirement for the annual monitoring of noise levels in accordance with *Schedule C.5 - Noise Monitoring*.

### **3.8 Nuisance:**

There are a number of conditions in the RD aimed at controlling nuisances at the Kinsale Road Facility. **Condition 5** requires that nuisances associated with the activity do not result in an impairment of, or an interference with amenities or the environment at the facility or beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary. Also, this condition requires that any method used to control or prevent any such impairment/interference shall not cause environmental pollution (e.g. the use of pesticides or insecticides). **Condition 6** of the RD requires nuisance monitoring at a minimum of weekly intervals, and a record to be kept of the actions taken as a result of the inspections. **Condition 11** of the RD requires the licensee to submit within three months of the date of grant of licence, a proposal for the control and eradication of vermin and fly infestations at the facility. The licensee is required to utilise BAT for the waste transfer/handling and landfill activities in relation to associated nuisances, such as dust, odour, litter, vermin and bird control.



In March 2009 on foot of complaints a fly infestation was identified at the facility. This issue is discussed further in Section 11 of this report. Corrective actions have been taken by Cork City Council to prevent reoccurrence of infestations at the facility.

#### **4. Use of Resources**

Electricity usage for the Waste Transfer Station is predicted to be c. 200,000 kWh per annum, from the supply network, and diesel usage c. 20,000 litres/annum. Water usage is predicted to be c. 500m<sup>3</sup> per annum, mostly to be used for cleaning purposes.

Efficient use of resources is required as part of the RD requirements.

#### **5. Restoration**

**Condition 10** of the RD stipulates measures for closure, restoration and aftercare of the site. In particular, **within six months** of the date of grant of licence, a fully detailed and costed plan for the closure, restoration and long-term aftercare of the site or part thereof is required to be submitted for the approval of the Agency. The licensee must demonstrate adequate financial provisions for the proposed restoration and aftercare plans.

The capping of the unlined landfill is on-going and the RD requires the final capping to be completed by 1<sup>st</sup> February 2012. This work will greatly reduce the uncontrolled infiltration of rainwater into the unlined landfill with the consequent reduction in production, and potential loss, of leachate to the subsoils beneath the site.

#### **6. Cultural Heritage, Habitats & Protected Species**

The closest designated sites to the Kinsale Road Landfill Facility are the Douglas River Estuary Natural Heritage Area (NHA) (Site Code 001046) and Cork Harbour Special Protection Area (SPA) (Site Code 004030) both located c.1.5km east of the facility. The Cork Lough NHA (Site Code 001081) is located c. 2km west of the facility and the Lee Valley NHA (Site Code 000094) is located c. 4.6 km west of the facility.

Surface water from the facility is normally expected to be uncontaminated and therefore will have no impact on surface water quality off-site. Storm water emissions from the facility pass through the surface water lagoon located at the south east corner of the facility. *Schedule C.2.3 Monitoring of Storm Water Emissions* requires the outlet from the lagoon to be tested continuously (flow, TOC, pH and conductivity) and released to a reed-bed percolation area before discharging to the Tramore River. Trigger/warning and action levels have been set for a number of key parameters. If the trigger/action levels are exceeded, the flow will be re-circulated in the reed bed or redirected to the leachate treatment system and released to the sewer.

The RD requires the licensee to submit and implement a programme of measures to remediate the elevated concentrations of groundwater contaminants identified to the east/south-east of the landfill. These measures will ensure that the facility does not have a significant impact on groundwater which will ultimately flow to the Douglas River Estuary NHA and Cork Harbour SPA.

When operated in accordance with the RD, there will be no significant environmental emissions from the facility that would give rise to adverse effects on these or any other designated sites.

#### **7. Waste Management, Air Quality and Water Quality Management Plans**

The plans for the region, where developed, have been considered during assessment of the waste licence review application.

Cork City Council developed the Cork City Waste Management Plan (CC-WMP). The first Waste Management Plan for Cork City was adopted in 2001 (for 1999 - 2004) and a revised plan was issued for the period 2004 - 2009. The Kinsale Road Landfill facility is referred to extensively in the CC-WMP 2004-2009 as the main waste disposal facility for the area. The closure of the Kinsale Road Landfill and the development of the Bottlehill Landfill (Reg. No. W0161-01) are addressed in the plan.

A Waste Transfer Station at the Kinsale Road Landfill is not specifically referred to but is consistent with the CC-WMP plan to transfer disposal of Cork City's waste to a new landfill

facility. In this regard the proposed Waste Transfer Station will minimise the number of vehicles that will be required to transport the waste to the final disposal facility.

The CC-WMP makes reference to the Cork Region Waste Management Strategy which provides a framework for waste management in the region up to the year 2020. This strategy includes reference to a Waste Recovery Facility that will allow for the mechanical separation of recyclables and will divert these separate materials to the appropriate recycling facility. The proposed Waste Transfer Station at the Kinsale Road Landfill does not include any proposals for additional material recovery of the municipal waste accepted. (Cork City waste is currently collected as part of a two-bin system (dry recyclables and residual waste)).

## **8. Environmental Impact Statement**

An EIS was not required for the purposes of this licence application.

### **Cross Office Liaison**

I consulted with Siobhan McDonnell, the EPA's OEE Inspector for the facility, and Caoimhin Nolan, an Inspector with the OEE with significant landfill enforcement experience, in relation to the Kinsale Road Landfill facility. They provided information on the existing enforcement concerns which assisted in ensuring that the review process appropriately addressed the proposals for the facility. The main issues discussed were the elevated contaminant concentrations in groundwater, landfill gas management and the landfill capping arrangements. I consulted with Donal Daly of the EPA's Office of Environmental Assessment in relation to the groundwater issues raised by the Hydrogeological assessment and the elevated groundwater concentrations identified to south/south-east of the facility.

## **9. Best Available Techniques (BAT)**

I have examined and assessed the application documentation and I am satisfied that the site, technologies and techniques specified in the application and as confirmed, modified or specified in the attached RD comply with the requirements and principles of BAT. I consider the technologies and techniques as described in the application, in this report, and in the RD, to be the most effective in achieving a high general level of protection of the environment having regard - as may be relevant - to the way the facility is located, designed, built, managed, maintained, operated and decommissioned.

## **10. Compliance with Directives/Regulations**

### **10.1 Landfill Directive [1999/31/EC]**

The RD conditions have been specified in line with the Landfill Directive and with the principles of Best Available Techniques (BAT).

### **10.2 IPPC Directive [96/61/EC]**

This installation falls within the scope of Category 5.4 (*Landfills receiving more than 10 tonnes per day or with a total capacity exceeding 25,000 tonnes, excluding landfills of inert waste*) of Annex I of Council Directive 96/61/EC concerning integrated pollution prevention and control.

The RD, as drafted, takes account of the requirements of the Directive, which was transposed into Irish law by the Protection of the Environment Act 2003. In particular, **Condition 7** provides conditions dealing with water, energy and raw materials use, reduction and efficiency on-site. **Condition 9** addresses accident prevention and emergency response, and **Condition 10** provides for measures to be taken in the event of definitive cessation of the activity.

### **10.3 Water Framework Directive [2000/60/EC]**

The WFD covers inland surface waters, estuarine and coastal waters and groundwater. The fundamental objective of the Water Framework Directive aims at maintaining "high status" of waters where it exists, preventing any deterioration in the existing status of waters and achieving at least "good status" in relation to all waters by 2015.

The conditions included in the RD have been developed to prevent any significant impact on water quality from the facility, and in particular surface water and groundwater quality. Substantial monitoring of water quality is also required to detect any impact and to allow mitigation measures

to be put in place as soon as possible to restore water quality where an incident at the facility has lead to an impact on water quality.

As detailed in Section 10.5 below, **Condition 6.16** of the RD requires that the licensee shall, within three months of the date of grant of licence, submit a proposal for the agreement of the Agency of the measures to be taken to remediate the elevated concentrations of groundwater contaminants identified to the east/south-east of the landfill.

#### **10.4 Air Quality Framework Directive (AQFD) [1996/62/EC]**

Assessment of the licence application documents and additional information requested from the applicant indicates that the operation of the facility will have no significant impact on air quality, and will not result in a breach of the statutory air quality limits specified in the daughter directives to the AQFD.

#### **10.5 Groundwater Directive [2006/118/EC]**

The Groundwater Directive provides for the control of releases of List I and List II substances to groundwater. (The direct discharge of List I substances is prohibited). There will be no direct discharge to groundwater from the Waste Transfer Station; therefore there will be no impact on groundwater or soil from this additional activity.

The Directive does not apply to discharges which are found by the competent authority of the Member State concerned to contain substances in Lists I or II in a quantity and concentration so small as to obviate any present or future danger of deterioration in the quality of the receiving groundwater.

The Groundwater Directive (80/68/EEC) will be repealed on 21 December 2013 as specified in the Water Framework Directive. Directive 2006/118/EC on groundwater has thus been put in place to ensure ongoing protection of groundwater. This directive supports the goals of the Water Framework Directive and sets standards for certain pollutants in groundwater and requires member states to specify threshold values for a range of other pollution indicators. Directive 2006/118/EC also includes pertinent aspects of Directive 80/68/EEC to allow for the continued protection of groundwater after the repeal of Directive 80/68/EEC. The European Communities Environmental Objectives (Groundwater) Regulations, 2010 (S.I. 9 of 2010), give effect to the requirements of the Groundwater Directive (2006/118/EC).

The original licence application (W0012-01) included a conceptual groundwater model. The quantity of the leachate predicted to migrate to groundwater from the entire site has increased from 5,195m<sup>3</sup>/year (included in the original licence application) to 6,446m<sup>3</sup>/year (Min.) and 26,492m<sup>3</sup>/year (Max.), (included in a hydrogeological assessment report, 2009, submitted as part of the licence review application). The horizontal throughput in the bedrock aquifer has been calculated at 556m<sup>3</sup>/day across the site (assuming homogeneity).

The original conceptual model predicted that groundwater moving through the site discharges to the Douglas River Estuary Natural Heritage Area (Site No. 001046) / Cork Harbour Special Protection Area (Site Code 004030), the nearest receptors c.1.3km east of the facility, in c. 80 days at which point it has been restored to background (equivalent to upgradient) quality, primarily due to dilution effects. Analysis of flow measurements by the applicant has shown that the Tramore River receives a baseflow (from the hydrogeological groundwater environment) of at least 0.028m<sup>3</sup>/second from the landfill area.

As mentioned previously, the Kinsale Road Facility has operated as an unlined landfill, accepting waste up to 16<sup>th</sup> July 2009. The summary of the 2009 hydrogeological assessment report concludes that some impact on groundwater quality from leachate contamination may be occurring, particularly at monitoring well BR3 (bedrock well) to the east/south-east of the landfill which had evidence of contamination.

The AER for 2009 and the Biannual Report for July to December 2009 submitted to the OEE identified significantly elevated total ammonium concentration at NW6 (240mg/l Max.) and NW7 (130mg/l Max.); BR3 (740mg/l Max.) and the immediately adjacent overburden well OB3 was also high (480mg/l Max.).

A recent OEE Environmental Liabilities Unit project involved a geophysical survey at the Kinsale Road Landfill facility, carried out in December 2009; the indications on the geophysical survey plan (issued by the OEE to the licensee on 26<sup>th</sup> April 2010) suggest there is a significant plume of leachate (to a depth of up to 34m) in an area towards the east/south-east landfill boundary. This location appears to correlate with an area between the eastern sheet pile wall and the southern endpoint of the eastern branch of the 700m landfill gas interceptor trench that was installed in September 2004. Groundwater well BR3 identified in the hydrogeological assessment report as having an elevated ammonia level correlates with the groundwater monitoring wells identified in the AER and Biannual Report (July- Dec. 2009) as having significantly elevated ammonia levels (wells NW6, NW7, NW8, BR3, OB3) and these wells are located in the vicinity of the suggested leachate plume.

Based on the results and recommendations of the hydrogeological investigations, the recent elevated groundwater ammonia levels and the indications of the geophysical survey, there is considered to be an increased risk of leachate impacting on groundwater quality in the area to the east/south-east of the facility. Therefore, the leachate collection/management system is to be revised to address this increased risk. **Condition 6.16** of the RD requires that the licensee, within three months of the date of grant of licence, submit a detailed proposal for a programme of measures to be undertaken to remediate the elevated concentrations of groundwater contaminants identified to the east/south-east of the landfill.

Obligations under the Groundwater Regulations (S.I. 9 of 2010) have been addressed as follows:-

- (a) The hydrogeological assessment report and groundwater monitoring results have identified increased pollutant concentrations within groundwater at the facility. The geophysical survey (issued to the licensee in April 2010) suggests that a leachate plume is increasing over time. **Condition 6.16** of the RD requires the licensee to submit a detailed proposal of the programme of measures to be undertaken to remediate the elevated concentrations of groundwater contaminants identified to the east/south-east of the landfill. The licensee is required to implement the programme of measures to limit the input of pollutants into groundwater, to prevent the deterioration of groundwater and to enhance and restore the quality of the groundwater body, with the aim of achieving good status by December 2015. The groundwater body is not at present classified, but would generally be considered to have poor status, and so the requirement to meet good status within the required timeframe will be a challenge. **Condition 6.16.5** requires the licensee to submit a revised conceptual model for the facility, within three months of the grant of licence, which shall be used to assist in the determination of the remediation measures required under **Condition 6.16.3**. The conceptual model shall be updated upon completion of the remediation measures and as required by the Agency.
- (b) The facility ceased landfilling waste in July 2009 and therefore the landfill is not now active. However, leachate will continue to require control and management for decades. The programme of measures required under **Condition 6.16**, along with the groundwater monitoring schedule, the establishment of revised trigger values and trend analysis and the installation of the final cap have the aim of reversing the upward trend in groundwater pollutant concentrations.
- (c) The groundwater is required to achieve compliance with the standards and objectives for protected areas. All groundwater bodies are classified as drinking water protected areas. As stated in the Inspector's Report for the original licence (W0012-01), there are no abstractors of groundwater for potable or production purposes down gradient of the facility. In terms of potability, the quality of the water in the aquifer diminishes towards the Douglas River Estuary due to the increase in salinity. The Kinsale Road Landfill facility is located in Cork City and all houses within the locality of the facility and within the city urban area are connected to the mains water supply. For these reasons, along with the mitigation measures in place and those required by the conditions of the RD, the risks presented by the landfill leachate are greatly reduced. Whilst it is suggested that a leachate plume may have increased over time, this will have minimal impact on the resource potential, as all water for potable and production purposes is provided from a mains water supply. Further remediation required under **Condition 6.16** will ensure that leachate containment measures are implemented to

address the increased contaminant levels within the groundwater and to reverse any increase in the leachate plume over time.

The Hydrogeological Assessment Report submitted with this review application is a competent assessment of the potential discharges to ground. This licence review is considered to satisfactorily address the groundwater authorisation review, as required under Article 11 of Groundwater Directive (80/68/EEC).

The conditions specified in the RD in relation to groundwater monitoring, controls and remediation actions are appropriate to ensure that a programme of measures is designed and implemented to reverse the upward trend in the concentration of pollutants and to limit the discharge of substances into groundwater.

## **11. Compliance Record**

The OEE made the following notes in relation to the licensed activity:

On foot of complaints in relation to flies, odour and inadequate cover, a site inspection was carried out in March 2009. During this inspection two non-compliances were identified along with three observations. The non-compliances related to: (i) nuisance due to flies on the surface of the hessian landfill cover; and, (ii) areas of exposed waste on the landfill area that were not related to specified engineering works or the working face of the landfill.

These non-compliances and observations have been addressed. The landfill has now ceased accepting waste, has been temporarily capped and is required by the RD to receive a final capping system by 01<sup>st</sup> February 2012, therefore the non-compliance issues should not reoccur.

An audit of the facility carried out in December 2008 identified six non-compliances and six observations. The non-compliances related to: (i) no up to date test certificate being available for the covered leachate lagoon; (ii) ongoing non-compliance in relation to dissolved methane emission to sewer; (iii) the odour levels at a local housing estate, as determined by the Audit Inspector; (iv) non-notification of elevated dissolved methane levels and elevated gas monitoring well readings; (v) "bad gas" generated from the facility not being flared; and, (vi) monitoring of methane at the inlet to the Gas Plant Flare not operating correctly. There were also six observations; this included a lack of information in relation to financial provision made to cover closure, restoration and aftercare.

In July 2007, a notification of non-compliance was issued in relation to the excavation and movement of waste previously deposited in the 'Phase 3' area of the site to the landfill working face without Agency notification.

The non-compliances and observations have predominantly been addressed. As information in relation to financial provisions has not been provided, the RD requires the licensee to submit evidence in relation to the financial provision that has been made to cover closure, restoration and aftercare within six months of the date of grant of licence.

### **Additional issues raised by the OEE included:**

#### **(i) The exceedance of methane trigger limits in landfill gas wells to the north-northeast of the facility.**

**Condition 6.23** of the RD requires the licensee to complete an assessment of the performance and effectiveness of the landfill gas interceptor trench to control potential migration of landfill gas and to implement all recommendations within a timeframe as agreed by the Agency. Exceedance of the methane trigger limit is to be considered an incident, thereby requiring action specified in **Condition 9.3** of the RD.

#### **(ii) Elevated ammonia in groundwater to the east/south-east of the facility and leachate management in the same area.**

These issues are addressed in Section 3.4 and Section 10.5 of this report (above).

#### **(iii) Final capping of the landfill.**

The RD specifies that final capping of the landfill shall be completed by 1<sup>st</sup> February 2012, i.e. within 30 months of the cessation of landfilling activities.

#### **(iv) Parameters included in the monitoring of surface water emissions from the reed bed - SRP5.**

*Schedule 2.2. - Monitoring of Storm Water Emissions* of the RD includes weekly Ammonia monitoring, due to the elevated concentrations recorded on occasions during 2009. The schedule includes an entry for "additional parameters" which may be included where elevated levels are identified at the inlet to the Storm Water Retention Pond/Reed bed system (monitoring point SRP1).

**(v) The management of shredding wood and wood chip pile management.**

**Condition 3.37** of the RD requires the licensee to carry out wood shredding in accordance with the recommendations included in the assessment letter (dated 26<sup>th</sup> March 2008 - Ref. 1290) and the licensee is required to implement measures to mitigate noise and dust nuisances. The principal recommendations require: (1) the wood chip piles to be under 10 metres in height, (2) piles should not be stored for longer than 3 months, and (3) the wood chips should be piled loose rather than being compacted, in order to maximise convective heat loss and related moisture loss.

As detailed above there have been a number of non-compliances and observations made in relation to activities at the facility over recent years. However, the licensee is considered to generally be in compliance with the conditions of their existing licence (W0012-02). The conditions included in the RD will address the operation of a Waste Transfer Station at the facility and will strengthen the conditions in relation to the points raised by the OEE.

## **12. Recommended Decision**

The RD as drafted includes a range of conditions that have been developed to afford protection to the surrounding environment. The main potential emissions from the Waste Transfer Station are typically associated with odour and dust nuisance. The control of odorous emissions from the Waste Transfer Station requires that waste is transferred only inside the Waste Transfer Station Building, the building is fitted with fast action doors (or equivalent agreed by the Agency), and the transfer station building is operated under negative air pressure with the extracted air passing through an odour/dust abatement system. The RD requires the licensee to monitor groundwater quality and implement measures to improve and protect groundwater and mitigate against further groundwater contamination.

I am satisfied that the conditions as set out in the RD will adequately address all emissions from the facility and will ensure that the carrying on of the activities in accordance with the conditions will not cause environmental pollution.

## **13. Submissions**

There were nine submission made in relation to this application.

### 13.1 Submission from Kinsale Road Dump Action Group (KR DAG) - Fiona Hannigan, and

### 13.2 Submission from Green Lawn Residents Association (GLRA), Chairperson - Beth Frost.

The KR DAG & GLRA make four main points in their submissions, some of which are matters for the Local Authority.

(i) *KR DAG & GLRA state: they have put up with the dump for the last forty- sixty years; the Kinsale Road area is now very heavily populated with housing and schools surrounding the site; rubbish of any kind would not be compatible with a Recreational Park where people expect to enjoy a quiet walk, picnic or outdoor event.*

Comment: - The RD will ensure that the activity is controlled to prevent environmental pollution, and to prevent nuisance beyond the site boundary of the facility. The Waste Transfer Station building will be fitted with a negative air pressure system, with the emissions being treated in an odour/dust abatement system and waste will only be unloaded/loaded inside the building. The proposed future uses for the landfill area of the facility once finally capped have not been specified in detail in the licence review application. The future uses are a matter for the Local Authority and may require planning consent and agreement, where relevant, from the EPA.

(ii) *KR DAG & GLRA state the waste will cause odour and will attract flies and vermin.*

Comment: - As stated above the RD requires the Waste Transfer Station building will be fitted with a negative air pressure system, with the emissions being treated in an odour/dust abatement system. The Waste Transfer Station building will be fully enclosed and waste will only be

unloaded/loaded inside the building. In addition, **Condition 11** of the RD requires the licensee, within three months of the date of grant of this licence, to submit to the Agency for its agreement a proposal for the control and eradication of vermin and fly infestations at the facility. This proposal shall include as a minimum, operator training, details on the rodenticide(s) and insecticide(s) to be used, mode and frequency of application and measures to contain sprays within the facility boundary.

(iii) *KRDAG & GLRA question the idea of a large amount of trucks from around the city bringing rubbish through a Recreational Park to be compacted onto larger trucks and transported through the Park and City again.*

Comment: - Transportation to and from the site is a planning issue.

(iv) *KRDAG & GLRA state that: (i) this is an opportunity to have a park similar to the Phoenix Park in Dublin and question whether people would bring their family to a park with rubbish so near; (ii) Councillors voted to close the Kinsale Road Site when landfilling was completed in July 2009, and the area would be turned into a Recreational Park. They request Cork City Council to keep its promise.*

Comment: - These points are considered under section (i) above and section 13.3 (i) below.

### 13.3 Submission from Mr. Mick Finn (Independent Candidate for 2009 Elections)

Mr. Finn writes in support of the submission made by *KRDAG*, and makes two main additional points in his submission.

(i) *Mr. Finn states that landfill has been earmarked for closure for several years, and is due to be transformed into a recreational amenity facility. He states that even a proposed [transfer] station would appear contrary to this planned use.*

Comment: - Landfilling at the Kinsale Road facility has now ceased, due to the requirements of the Landfill Directive. The proposed future use of the site has not been described in detail in the licence review application and it is considered that this is primarily a planning issue. Any proposals by Cork City Council in relation to the future use of the site may require agreement from the Agency, where applicable.

(ii) *Mr. Finn states that he believes that toxicants from the site are contributing to health problems of people in the area, particularly with children suffering from asthma and other breathing conditions. He asks the EPA to look at the application as a negative development, in the health and safety interests of the wide community affected by the continued operation of the site.*

Comment: - Emissions from the facility are controlled in accordance with the existing Waste Licence (W0012-02). This licence specifies emission limit values (ELVs), control measures, monitoring methods and monitoring frequency to ensure that the ELVs are complied with. Where there is a breach of an ELV or a condition of the licence appropriate enforcement action is taken. Landfilling at the facility has now ceased. The licence specifies measures to deal with the closure, restoration and aftercare management of the facility. The RD as drafted requires the Waste Transfer Station to be fitted with a negative air pressure system, with the emissions being treated in an odour/dust abatement system. The Waste Transfer Building is required to be fully enclosed with waste unloaded/loaded only inside the building. This will minimise emissions from the activity.

It is considered that the final capping of the entire landfill footprint area, to be completed by 1<sup>st</sup> February 2012, will minimise fugitive emissions to atmosphere and will reduce the infiltration of rainwater into the landfill and leachate generation.

When operated in accordance with the conditions of this RD there will be no emissions from the facility that will give rise to adverse effects on the local environment.

### 13.4 Submission from Douglas Community School, Clermont Avenue, Douglas, Cork - Bernard Horgan, Principal

(i) *Douglas Community School are concerned at the potential effect of the continuance of the activities of the Kinsale Road Landfill. The submission states that operations at the facility have led to infestations of flies in the area. They state that the health hazard presented by flies as a vector*

*for many diseases makes any level of flies in a school unacceptable, and the level of risk of infestation caused by the landfill operation is at an exceptionally high level.*

*Douglas Community School request that the EPA insist on the closure of the Kinsale Road Landfill site and its conservation to a public amenity.*

Comment: - A non-compliance under the current waste licence (W0012-02) was issued against Cork City Council in relation to a fly infestation in March 2009. The EPA detailed seven specific corrective actions to be carried out by Cork City Council to bring the fly infestation under control. The licensee implemented these measures and provided a report on the actions taken to eliminate the problems concerning flies.

Landfilling at the Kinsale Road facility ceased on 16<sup>th</sup> July 2009 in accordance with the requirements of the Landfill Directive. The RD sets out a schedule for the final capping of the landfill footprint. The proposed Waste Transfer Station building will be fitted with a negative air pressure system, with the emissions being treated in an odour/dust abatement system and waste will only be unloaded/loaded inside this building. The licensee is required to ensure that nuisances, vermin, birds, flies, etc. do not result in impairment or an interference with, amenities or the environment at the facility or beyond the facility boundary. The RD also requires the licensee to submit a proposal for the control and eradication of vermin and fly infestations at the facility, to keep full records of the programme of control and eradication and to carry out weekly nuisance inspections (which include flies).

The conversion of the landfill site to a public amenity is a matter for Cork City Council and Local Authority. Any proposals by Cork City Council in relation to the future use of the site may require planning permission and agreement from the EPA, where applicable.

### 13.5 Submission from Health Service Executive – Southern Region (HSE), Environmental Health Dept., Cork. Declan Hamilton - Principal Environmental Health Officer

The Health Service Executive make two main points in their submission, and they also provide a summary of the controls proposed in the application in relation to air emissions and emissions to surface water.

(i) *The HSE state that in relation to Environmental Nuisances, while mitigation measures are included for birds, flies, dust and litter, pests are not addressed. The submission states that the operation of a Transfer Station has the potential to pose a serious risk of infestation of pests such as rats and mice, which are a serious public health issue. The HSE recommend that mitigation measures should include a pest control plan with regular detailed inspections of the facility. They also state that it is imperative that good construction and operation practices be employed to ensure that the area is managed well so that it would not attract rodents.*

Comment: - **Condition 11** of the RD requires the licensee, within three months of the date of grant of this licence, to submit to the Agency for its agreement a proposal for the control and eradication of vermin and fly infestations at the facility. This proposal shall include as a minimum, operator training, details on the rodenticide(s) and insecticide(s) to be used, mode and frequency of application and measures to contain sprays within the facility boundary. Birds shall be prevented from gathering on and feeding at the facility by the use of birds of prey and/or other bird scaring techniques. This is required to be continued until the entire waste landfill footprint is capped to the written satisfaction of the Agency.

(ii) *The HSE state that there is no information regarding the decommissioning of the current landfill site. They suggest that details of the aftercare management plan should be made available with the application in relation to interest of public health. The HSE suggest that the management plan should include information pertaining to: (1) waste - how the treatment and covering will take place; (2) environmental nuisances – including rodents; flies and dust; (3) obsolete equipment; (4) any buildings which will be obsolete; (5) groundwater contamination; and (6) land contamination.*

Comment: - This review application was made by Cork City Council to operate a Waste Transfer Station at the site of the Kinsale Road Landfill facility. A restoration and aftercare plan in relation to the landfill facility was submitted under the existing licence (W0012-02) in 2003. **Condition 10** of the RD requires the licensee to, within six months of the date of grant of licence, prepare and submit a fully detailed and costed plan for the closure, restoration and long-



term aftercare of the site or part thereof. Once submitted this document will be placed on the public file and can be viewed by members of the public at the relevant EPA office.

The RD specifies conditions in relation to: (i) the covering and capping of the landfilled area; (ii) environmental nuisance control and inspections; and (iii) groundwater monitoring. The groundwater around the landfill is monitored using a series of boreholes located around the landfill footprint. The RD addresses environmental nuisances, e.g. **Condition 11** requires the licensee to, within three months of the date of grant of this licence, submit a proposal for the control and eradication of vermin and fly infestations at the facility. The RD requires that the majority of infrastructure/equipment for leachate collection and treatment and landfill gas collection and utilisation remain in place for a significant time period, although landfilling at the facility ceased on the 16<sup>th</sup> July 2009. The buildings at the facility will be used and occupied as needed by the licensee. The RD retains the requirement to regularly monitor groundwater around the landfill, this monitoring will identify any issues in relation to contamination of groundwater and potential soil contamination, so that if an issue is identified appropriate remedial measures can be taken.

The additional controls in relation to air emissions and leachate management included in the licence application, and as summarised by the HSE, are included in the RD, as applicable.

### 13.6 Submission from Ms. Colette Nagle - Local Resident.

*Ms Nagle provided a submission stating that she makes a formal objection to the issuing of a licence in connection with transfer centre for Cork City Council at the Kinsale Road facility.*

Comment: - The RD addresses the environmental issues associated with the Waste Transfer Station activity and all other activities to be carried out at the Kinsale Road Landfill. There will be no significant environmental emissions from the facility when operated in accordance with the conditions of this RD which would give rise to adverse effects on the local environment.

### 13.7 Submission from St. Columba's Girl's National School, with Facility for Deaf Children (SCGNS) - received 03<sup>rd</sup> April 2009 from Ms. Marina Lawler - Co-ordinator of the Green School Committee and Ms. Aoife Kennelly - Chairperson of Green Committee - Douglas Village, Cork.

The SCGNS make three points in the submission.

*In their submission SCGNS object to the granting of this waste licence. They state that the school have had to endure the proximity for the dump for too long, and the local residents were made a promise seven years ago that the Kinsale Road site would be turned into a recreational park when the landfill was full. They feel that it is important to adhere to the closure date of July 2009.*

*SCGNS state that the school was infested with flies during the first few months of the year and are fearful that it could re-occur.*

*SCGNS state the school has been involved in the Green Schools programme since 2002 and have made significant progress to reduce waste sent to landfill. They look forward to the day when the school is adjacent to a park and request that the EPA will not grant Cork City Council a licence for the Waste Transfer Station.*

Comment: - The issues raised in this submission are similar to those raised in other submissions. It is considered that Sections 14.1/14.2 and 14.4 of this report have addressed these issues.

### 13.8 Submission from Residents Association - Ms. Mary Cotter.

*Ms. Cotter states that she was delighted to hear that the landfill was to close in July 2009, but has heard that the site is instead to be used as a Waste Transfer Station. Ms. Cotter states that she has lived in the area for 20 years and has put up with the smell and flies for long enough.*

Comment: - These issues are considered under Sections 14.1, 14.2 and 14.4 of this report.

### 13.9 Submission from Christ King Secondary School (CKSS). Mary Keane - Principal.

*CKSS state that they believe that all rubbish from the city will be brought to the site, compacted into large bales and then transported to Youghal Landfill. They state that the waste will cause odour and attract flies and vermin.*

*The submission states that they would have a huge concern from a health perspective if this activity were to go ahead. CKSS also state they were under the impression that the Kinsale Road site would be turned into a recreational park when the landfill was full.*

Comment: - These issues are considered to have been addressed under Sections 14.1, 14.2, 14.3 and 14.4 of this report.

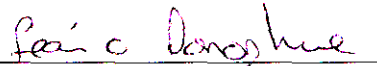
#### **14. Charges**

The charges specified in the RD (€29,442) reflect the current charge for the activity under Waste Licence register number W0012-02. No increase in enforcement effort is expected on foot of the development of a waste transfer station due to the cessation of waste landfilling at the facility.

#### **15. Recommendation**

In preparing this report and the Recommended Determination I have consulted with Agency technical and sectoral advisor and Office of Environmental Enforcement Inspector for the site. I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached RD and for the reasons as drafted.

Signed



18 Stuart Huskisson  
Inspector  
Office of Climate, Licensing and Resource Use

#### **Procedural Note**

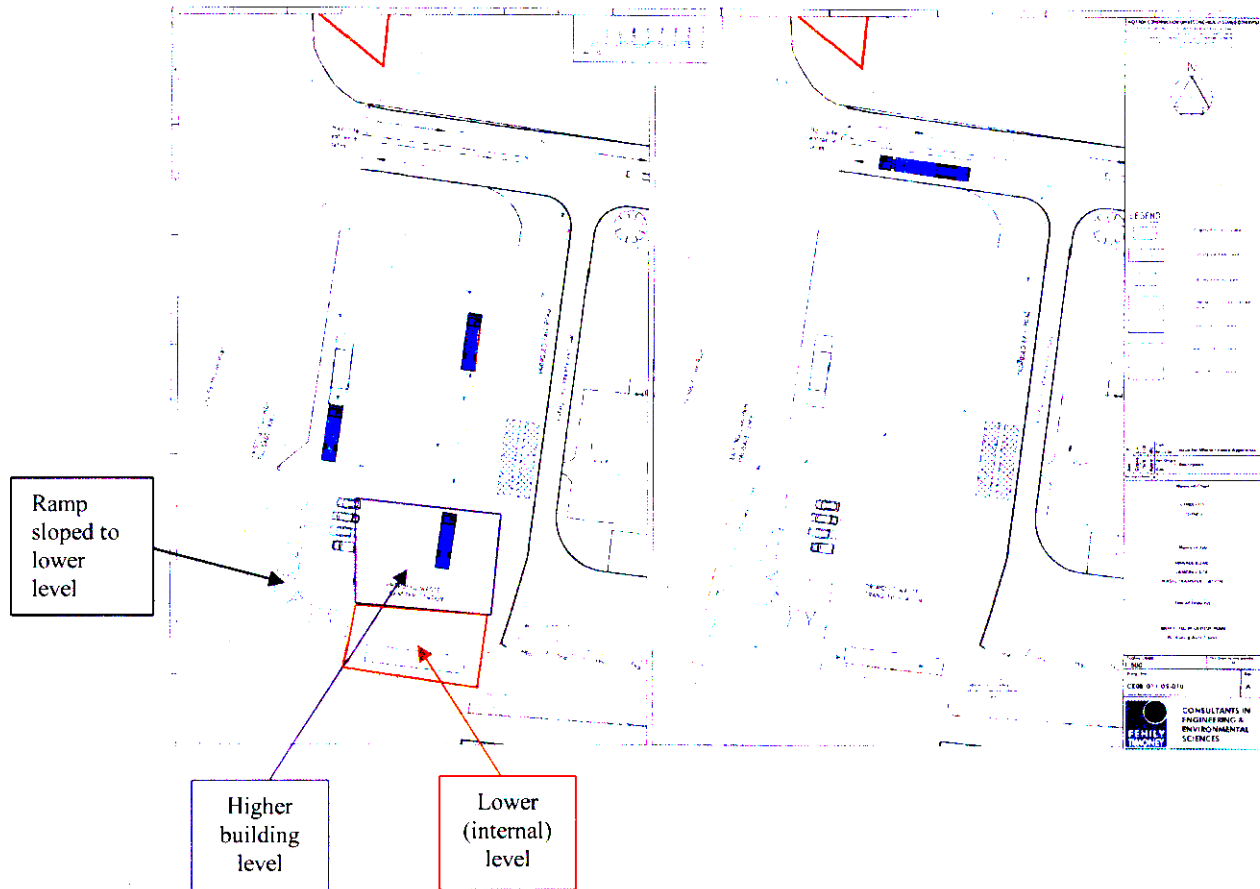
In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996 to 2010.

## Appendix I

### Vehicle Flow Layout for Waste Transfer Station Building

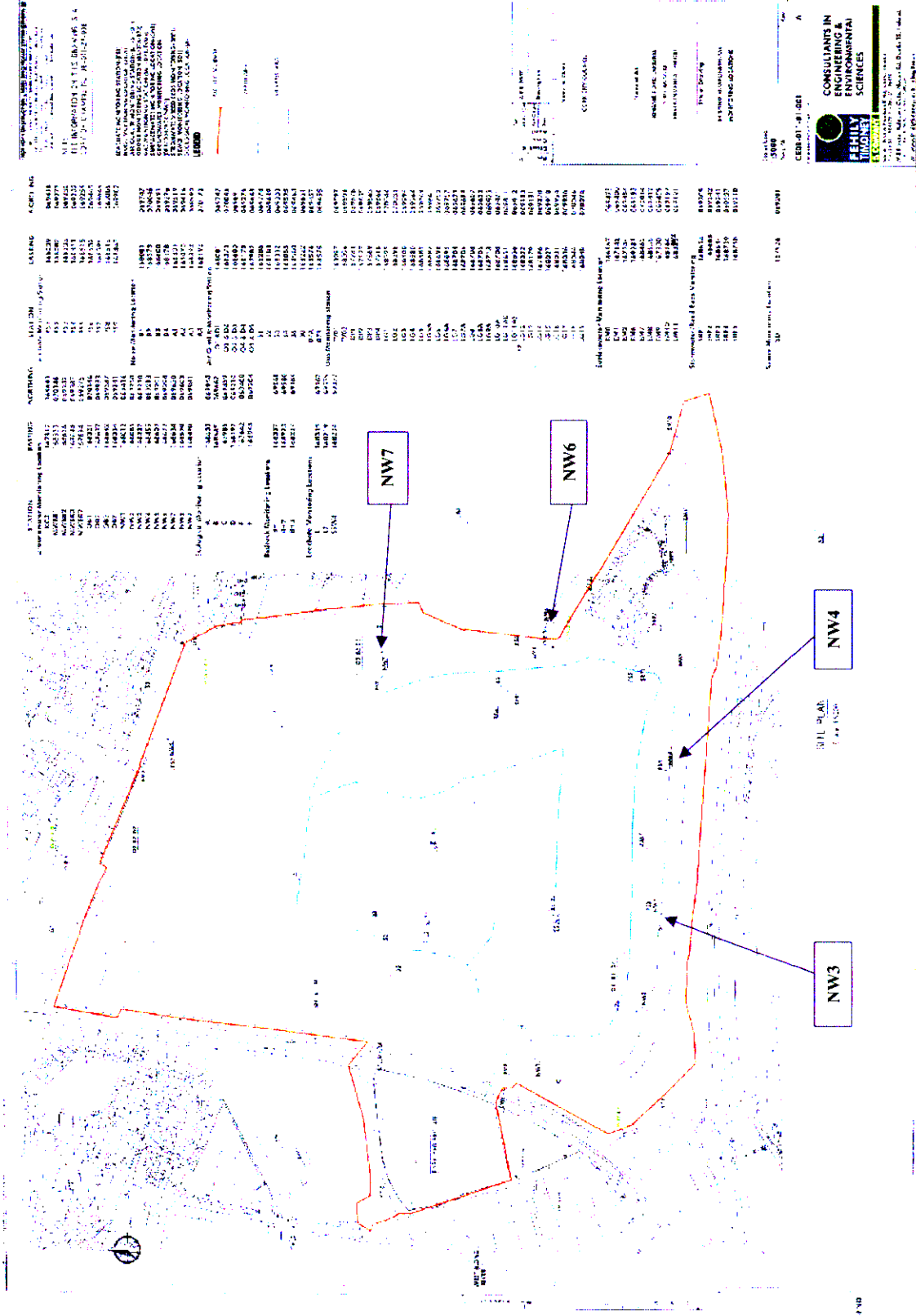
(i) Vehicle path for Refuse Collection  
Vehicles arriving at the facility

(ii) Vehicle path for Ejector Trailers  
removing waste from the facility





# Appendix II: Monitoring Location Map



**CONSULTANTS IN ENGINEERING & ENVIRONMENTAL SCIENCES**  
**PEHILLY ENGINEERING & ENVIRONMENTAL SCIENCES**  
 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

