



## Macroom Civic Amenity Site

*Winner of Repak National Recycling Awards 2004*

### ANNUAL ENVIRONMENTAL REPORT

**January 1<sup>st</sup> 2008  
To December 31<sup>st</sup> 2008**

**Cork County Council  
Comhairle Contae Chorcaí**

**ORIGINAL**

**Environmental Protection Agency**  
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**Waste  
Licence Reg.  
No.**

**142 -1**

**MACROOM CIVIC AMENITY FACILITY**  
**ANNUAL ENVIRONMENTAL REPORT**  
**JANUARY 1<sup>ST</sup> 2008 – DECEMBER 31<sup>ST</sup> 2008**



**REVISION CONTROL TABLE**

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# **1. INTRODUCTION**

## **1.1 Scope and purpose of the Report**

Cork County Council holds a Waste Licence (Register No. W0142-01) to operate Macroom Civic Amenity Site. The aim of this Annual Environmental Report (AER) is to provide a review of activities at the facility within the past 12 months. The required scope of the report is outlined in Schedule F (Content of the Annual Environmental Report) of the Waste Licence.

## **1.2 Back ground to the report**

The Recycling facility has been in operation since December 1<sup>st</sup> 2003. The Environmental Protection Agency (EPA) issued Cork County Council with a Waste Management Licence on November 2<sup>nd</sup> 2001 (Waste Licence No. 142-1).

In accordance with the requirements of Condition 11.5 of the Waste Licence, the first Annual Environmental Report (AER) for the facility was submitted to the EPA within 13 months of the date of commencing waste acceptance at the facility. Subsequent Annual Environmental Reports for the facility are to be submitted to the Agency by February 28<sup>th</sup> as per agreement in writing from the Agency.

This is the sixth AER to be submitted under Condition 11.5 of the licence and covers the reporting period January 1<sup>st</sup> 2008 to December 31<sup>st</sup> 2008, as per EPA instructions and correspondence.

### **1.3. Site location**

The facility is located at:

Codrum,  
Macroom,  
Co. Cork

Tel. (026) 43721  
Fax: (024) 43722

The location of the site is shown on Figure 1.1.

The National Grid Reference for the site is 1319E, 0728N.

### **1.4. Environmental Policy**

Cork County Council is committed to conducting all activities such that they have a minimal effect on the environment.

The main objectives of the Council are:

- A commitment to comply with the Waste Licence and all relevant environmental legislation and approved code of practice
- To reduce negative environmental impacts by continually developing and modifying all procedures
- To provide adequate training and awareness to all employees with regard to minimising environmental risks
- To ensure that management and all personnel working on the site are familiar with the conditions of the waste licence, the content of the Environmental Procedures and the Emergency Response Procedures.

**Figure 0.1: Site Location Map**



## **2. SITE DESCRIPTION AND ACTIVITIES**

### **2.1 Description of the Site**

Macroom Civic Amenity Site occupies an area of approximately 2.4 hectares and is located in the townland of Codrum, approximately 300 metres west of the Macroom town limits.

The site is situated close to the north bank of the River Sullane with an elevation of 70-80 metres AOD. Surface water on the site drains southwards along a man-made drainage channel. The River Sullane controls the drainage in the area. Tributaries to the Sullane generally flow in a north – south direction, varying in size from large rivers like the Foherish and Laney Rivers to small streams and drains.

The bedrock geology of the Macroom region is mapped as the Bird Hill Formation (GSI, 1:100000 Bedrock Geology Series Sheet 21). This formation is mainly Old Red Sandstone, which is the principal rock type in the Munster Basin, and is upper Devonian in age.

The Bird Hill Formation mainly comprises fine-grained lithologies. The dominant rock-type is a purple-grey to grey-green fine-grained sandstone with bed thicknesses of usually less than 1 metre. Purple siltstones are generally massive with beds up to 2.5 metres thick but more often less than 0.1 metres thick. Mudcracks and very small-scale carbonate nodules are common.

Site Investigations carried out on site in 1999, indicate that rock outcrops on the eastern and western sides of the site and rockhead appears to dip to depths in excess of 10 metres in the southern part of the site. Rock is generally pink / grey fresh to slightly weathered sandstone or siltstone, which is generally moderately to very strong.

The Geological Survey of Ireland (GSI) has not classified the bedrock aquifers in County Cork. However, the GSI publication “ Geology of Kerry – Cork” (Bedrock Geology Series Sheet 21), states that the principle underlying rock in the Macroom Area is Old Red Sandstone. This rock is often overlaid with small Quaternary sand / gravel deposits, which are minor aquifers (termed Locally Important Aquifers).

Quaternary sand and gravel aquifers are limited in extent, but are sometimes capable of supplying high yields to boreholes. Generally, Quaternary deposits are exploited by

small wells and springs, and provide additional storage for underlying and adjacent limestone aquifers.

The meteorological station at Cork Airport indicates prevailing winds from the southwest. The annual rainfall at the site during 2008 is outlined in Table 2.1.

**Table 0.1: Rainfall at Cork Airport 2008**

<i>Month</i>	<i>Rainfall/mm</i>
<i>January</i>	193.1
<i>February</i>	51.8
<i>March</i>	113.2
<i>April</i>	54.0
<i>May</i>	75.6
<i>June</i>	128.9
<i>July</i>	155.8
<i>August</i>	165.1
<i>September</i>	123.6
<i>October</i>	139.8
<i>November</i>	79.4
<i>December</i>	60.2
<i>Total</i>	<b>1340.5</b>

## **2.1 Waste Activities Carried out at the Facility**

Waste activities at Macroom Civic Amenity Site are restricted to those outlined in Schedule A of the Waste Licence as outlined below: -

### **Third Schedule**

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

## **Fourth Schedule**

<u>Class 2</u>	Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processes).
<u>Class 3</u>	Recycling or reclamation of metals and metal compounds.
<u>Class 4</u>	Recycling or reclamation of other inorganic materials.
<u>Class 13</u>	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.

The main activity at the site is the storage of primarily non-hazardous domestic and commercial waste for either recycling offsite at permitted / licensed locations or disposal at licensed facilities.

### **2.2 Waste Quantity and Composition**

The quantity and composition of waste received, sent off-site for recycling or appropriate treatment or disposal during the reporting period is outlined in Table 2.2.

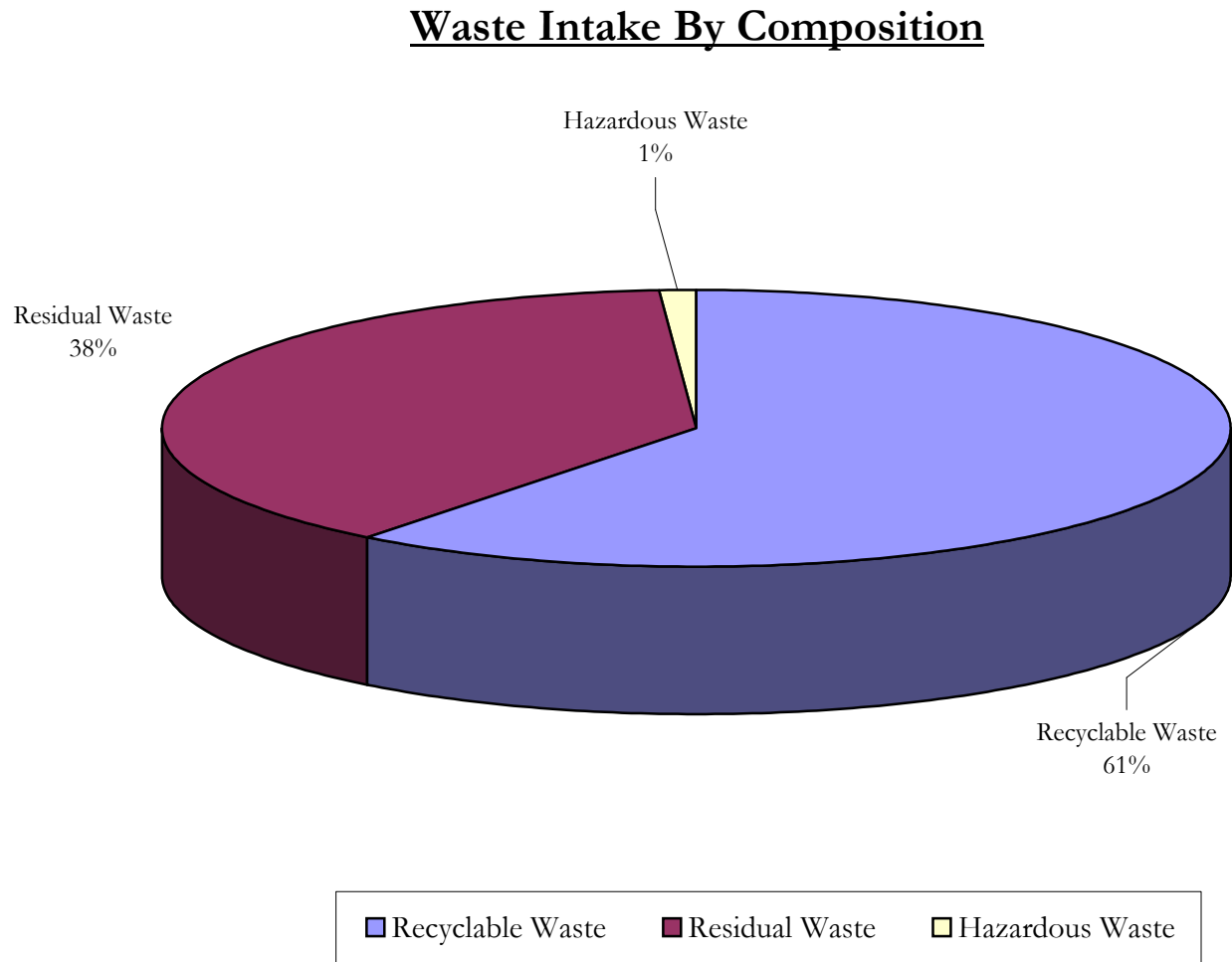
The quantity of municipal solid waste that was subsequently disposed of at landfill, accepted in the reporting period January 1<sup>st</sup> 2008 to December 31<sup>st</sup> 2008 was 1614.33 tonnes. In addition, a total of 2732.85 tonnes of recyclable materials were despatched from the facility and sent for appropriate treatment off-site. In 2007, 1776.3 tonnes of municipal solid waste were despatched to landfill and 2814.2 tonnes of recyclable waste were despatched from the facility.

	<i>Quantity of Waste Tonnes</i>			<i>Total Quantity Tonnes</i>
	<i>Recyclable Waste</i>	<i>Residual Waste</i>	<i>Hazardous Waste</i>	
<i>January</i>	229.92	151.26	1.44	382.62
<i>February</i>	204.77	122.62	7.1	334.49
<i>March</i>	211.2	138.84	2.62	352.66
<i>April</i>	239.03	132.88	3.33	375.24
<i>May</i>	258.82	120.4	3	382.22
<i>June</i>	219.9	140.24	3.66	363.8
<i>July</i>	277.32	140.77	1.94	420.03
<i>August</i>	234.89	145.58	5.68	386.15
<i>September</i>	212.54	134.78	2.66	349.98
<i>October</i>	221.02	126.84	3.92	351.78
<i>November</i>	183.89	110.14	3.68	297.71
<i>December</i>	199.44	149.98	1.08	350.5
<b><i>Total</i></b>	<b>2692.74</b>	<b>1614.33</b>	<b>40.11</b>	<b>4347.18</b>

**Table 2.2: Quantities of Waste Received during the Reporting Period**

**Note:** - Hazardous Waste comprises fluorescent tubes, lead acid batteries, waste engine oil and household hazardous materials.  
**WEEE has not been included in the hazardous waste totals**

**Figure 0.1: Quantities of waste-by-waste type received at the Macroom Civic Amenity Facility - 2008**



## **2.4 Remaining Capacity**

Because the facility has an indeterminable lifetime, it is not possible, to provide an estimate of the remaining capacity of the facility. The facility is licensed as set out in Schedule A: Waste Acceptance to accept 5000 tonnes of material per annum.

## **2.5 Methods of waste handling**

In 2008, all waste accepted on site was deposited into specially constructed receptacles for the storage of materials either for recycling or disposal.

When a vehicle enters the site, a site operative records the presence of the vehicle, examines the waste being presented and directs the vehicles occupant(s) to the relevant container. Where the householder presents hazardous waste, the site operative will bring the specific waste to the relevant receptacle in the hazardous waste storage area.

At the end of each working day, any open skip whose contents may create litter, will be covered with nets, tarpaulins or such other in order to minimise any nuisance.

## **2.6. Usage of the facility**

In the reporting period, the total usage of the facility was recorded as being 119379 users compared to 118608 users in 2007 with 9599 users being recorded in December 2008. The mean usage per month was 9948 in 2008 compared to 9884 users per month in 2007. The number of vehicles using the site are logged by site staff to enable usage statistics be formulated. The numbers are added each day and recorded in the site diary. An automatic counter was installed on site in 2007.

Data on the usage of the facility is contained in Appendices located at the rear of this report

### **3. ENVIRONMENTAL MONITORING**

Cork County Council implements a comprehensive environmental monitoring programme to assess significance of emissions from site activities at Macroom Civic Amenity site at Codrum, Macroom, Co. Cork. The programme includes surface water, dust and noise monitoring.

The monitoring results, including the full laboratory reports, were submitted to the agency on a quarterly basis during 2008. This section presents a summary of the monitoring carried out by Fehily Timoney & Co for 2008.

#### **3.1 Surface Water Monitoring**

Surface water monitoring was conducted biannually at the locations specified in Schedule D: Monitoring of the waste licence (Reg. No. WO142-1). Visual inspections are carried out weekly and these records are kept at the facility office.

On 31 January 2008, total coliforms and faecal coliforms at locations SW1 and SW2 exceeded surface water limits used to assess impact. However, levels of total and faecal coliforms at SW3 and SW4 were below the limits of 5000cfu/100ml and 1,000 cfu/100 ml respectively. As total coliforms are a group of naturally occurring bacteria commonly found in the environment and present in all surface water, their source is likely to be environmental. The elevated levels of faecal coliforms could be attributed to livestock which were present in the fields adjacent to the sample locations SW1 and SW2.

Samples taken on 31<sup>st</sup> January showed that ammoniacal nitrogen exceeded the limits outlined in Table 2.3 at all four locations. Elevated levels of ammonia may be due to the presence of livestock and use of artificial fertilisers in the surrounding area which is predominantly agricultural.

On 9 July 2008, Biochemical Oxygen Demand (BOD) at location SW3 was slightly above the limits used. This location was noted to have a very low flow of water and dense vegetation growth in the stream, which would increase the oxygen uptake of the stream. It was noted during the site visit that dense vegetation was present in all watercourses with which may account for the higher than normal BOD results at all four sample locations both upstream and downstream of the site. The Chemical Oxygen Demand (COD) at location SW3 downstream of the site and SW4 upstream of the site show little difference at 13mg/l and 14mg/l respectively.

The January and July monitoring established that the water quality is not impaired by activities carried out at Macroom civic amenity site.

### 3.2 Dust Monitoring

Dust is monitored three times a year (twice during the period May to September) in accordance with Schedule D of the waste licence. Dust deposition levels analysed at the site in 2008 are within the specified waste licence limit of 350 mg/m<sup>2</sup>/day.

The dust monitoring established that the air quality is not impaired by activities carried out at Macroom civic amenity site.

### 3.3 Noise Monitoring

Noise monitoring was conducted annually in accordance with Schedule C and D.

The site waste licence stipulates noise emissions resulting from activities at the facility and measured at all locations will not exceed an emission limit value (ELV) of 55 dB(A) L<sub>Aeq</sub> (30 minutes) during daytime hours.

Results from noise monitoring carried out at N2 and N3 show that this ELV was not exceeded at these locations.

Monitoring location, N1, exceeded this limit with a value of 66 dB(A) L<sub>Aeq</sub>. The dominant source of noise at this location was traffic from the nearby main Cork to Killarney road, the N22. This noise source is apparent as the L<sub>AF10</sub> which is indicative of traffic noise, was measured at 70 dB(A). The L<sub>90</sub> value of 48 dB(A) would be more representative of site noise and this would be compliant with the daytime noise ELV of 55 dB(A). Results from previous noise monitoring conducted in 2003, 2004, 2005, 2006 and 2007 also demonstrate an exceedance of the 55dB(A) limit at this location. A comparison of these results is outlined in Table 4.1. in all cases it can be seen that traffic noise (reported as L<sub>AF10</sub> in table 4.1) was the dominant noise source at location N1.

It is evident from this noise monitoring conducted in 2008 that noise levels resulting from activities in Macroom Civic Amenity are compliant with the limits outlined in Schedule C.1 of the waste license. Noise levels at location N1 are indicative of background noise levels at the site. The waste licence stipulates that night-time noise limits must not exceed 45 dB(A) L<sub>Aeq</sub> (30 minutes). The facility is closed at night and does not contribute to noise levels in the area.



### **3.4 Discussion**

It is evident from the monitoring undertaken in 2008 that activities in Macroom Civic Amenity are not impairing or interfering with the surrounding environment.

### 3.5 Monitoring Locations

Monitoring locations are shown on the map given in Appendix 1 and summarised in Table 3.1.1. These are as requested by *Schedule D: Monitoring* of the waste licence.

**Table 3.2.1: Environmental Monitoring Locations**

<b>Monitoring Label</b>	<b>Location Description</b>
SW1	River Sullane – upstream of discharge point from facility
SW2	River Sullane – downstream of discharge point from facility
SW3	Stream – downstream of facility
SW4	Stream – upstream of facility

### Monitoring Parameters

Parameters monitored in this quarter are as given in waste licence 142-1, Schedule D, Table D.4.1. These parameters and the requested frequency of monitoring are shown in Table 2.2. Visual inspections are carried out weekly and these records are kept at the facility office. There are no surface water discharge limits given in the waste licence. However, Conditions 6.1 and 6.2 state as follows:

*“6.1. No specified emission from the facility shall exceed the emission limit values set out in Schedule C: Emission Limits of this licence. There shall be no other emissions of environmental significance.*

*6.2. The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.”*

Surface water results have been compared to the European Communities (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations, 1989; S.I. No. 294 of 1989 (henceforth referred to as the Surface Water Regulations, 1989). These implement the Surface Water Directive (75/440 EEC). The limits outlined in these regulations are given in Table 3.1.3

**Table 3.1.2 Surface Water Parameters & Frequency**

<b>Parameter</b>	<b>Monitoring Frequency</b>
Visual Inspection	Weekly
Ammoniacal Nitrogen	Biannual
BOD	Biannual
COD	Biannual
Chloride	Biannual
Dissolved Oxygen	Biannual
Electrical Conductivity	Biannual
PH	Biannual
Total Suspended Solids	Biannual
Temperature	Biannual
Coliforms (Total & Faecal)	Annual

**Table 3.1.3 Surface Water Regulations, 1989 (S.I. No. 294 of 1989)**

<b>Parameter</b>	<b>Limit</b>
Ammonical Nitrogen as N (mg/l)	0.2* or 1.5**
Biochemical Oxygen Demand (mg/l)	5*
Chemical Oxygen Demand (mg/l)	40 <sup>†</sup>
Chloride (mg/l)	250*
Dissolved Oxygen (mg/l)	> 60% Sat. O <sub>2</sub> *
Electrical Conductivity (µS/cm)	1,000*
Ph	5.5 - 8.5*
Total Suspended Solids (mg/l)	50*
Temperature (°C)	25*
Total Coliforms (MNP/100mls)	5,000*
Faecal Coliforms (MNP/100mls)	1,000*

\* Standard for A1 category waters

\*\* Standard for A2 category waters

† Standard for A3 category waters (no limit set for A1 or A2 waters)

## **4. SITE DEVELOPMENT WORKS**

The facility has been in operation since December 1<sup>st</sup> 2002. The EPA licensed the site in November 2001.

### **4.1 Site Development Works during the Reporting Period**

Site development works that have been carried out or that are currently ongoing at the site in accordance with the conditions of the licence during the reporting period are outlined in Table 4.1 below.

**Table 4.1: Site Development Works during the Reporting Period**

<b><i>Licence Requirement</i></b>	<b><i>Status</i></b>
<b><i>Condition 3.4 Site Security</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.4.1
<b><i>Condition 3.5 Site Roads and Hardstanding</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.5.1
<b><i>Condition 3.5 Traffic Control Measures</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.5.1
<b><i>Condition 3.7 Provision of Site Office</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.7.1 and 3.7.2
<b><i>Condition 3.8 Waste Inspection Area</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.8.1 and 3.8.2
<b><i>Condition 3.9 Installation of Weighbridge.</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.9.1
<b><i>Condition 3.11 Installation of a Bunded Area</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.11.1 – 3.11.5 inclusive
<b><i>Condition 3.14 Monitoring Infrastructure</i></b>	Installed prior to February 1 <sup>st</sup> 2003 to requirements of Condition 3.14.1 and Condition 8.1
<b><i>Condition 3.15 Provision of Compactor / Baler</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.15.1
<b><i>Condition 3.3 Site Notice Board</i></b>	Installed prior to December 1 <sup>st</sup> 2002 to requirements set out in Condition 3.3.1 & 3.3.2

**Table 4.1 Cont'd: Site Development Works during the Reporting Period**

<i>Licence Requirement</i>	<i>Status</i>
<p align="center"><b><i>Condition 3.10 Waste Water Treatment System.</i></b></p>	<p align="center">Installed prior to December 1<sup>st</sup> 2002 to requirements set out in Condition 3.10.1 &amp; 3.10.2</p>

## **5. WASTE RECEIVED BY THE FACILITY**

Macroom Civic Amenity Facility provides a collection point for municipal solid waste that is ultimately landfilled at Youghal Landfill (Waste Licence 68.2) and Kinsale Rd. Landfill (W0012-03) and a civic amenity facility for recycling domestic waste materials such as paper, cardboard, glass etc.

Condition 5.2.1 states, “ *The Civic Waste Facility shall only be used by private vehicles, small commercial vans and vehicles collecting recyclable waste by or on behalf of the local authority. The facility shall not be used as a transfer station for disposal of waste by commercial waste disposal contractors or local authority waste collection vehicles*”.

The site caretaker / site manager / deputy site manager visually inspects each load as it arrives on the facility forecourt. The general public are then directed to the relevant skip / bin or receptacle into which to deposit their recyclable materials.

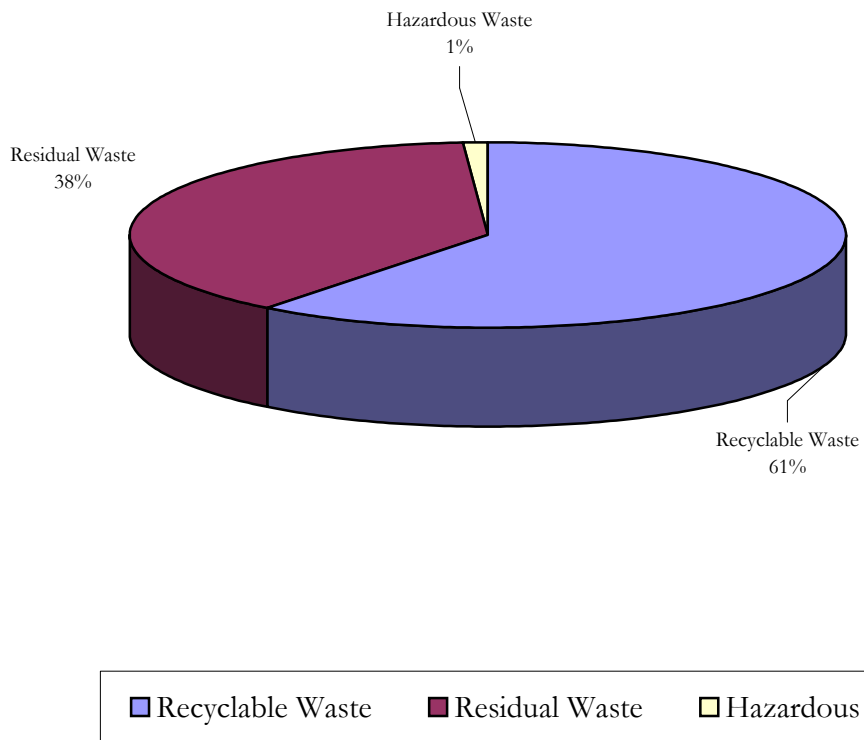
A written record is kept of each waste load despatched from the site. The weighbridge operator maintains a register of the following information: -

- Date and time of despatch of the waste
- Description of the waste
- Quantity of waste
- Name of carrier/collector of waste/waste collection permit number
- Details of the destination where waste has been forwarded to
- Vehicle registration number
- Relevant EWC Code(s)
- Waste licence / waste permit facility register numbers
- Name of person checking the load; and
- Where loads or wastes are rejected, details of the date of occurrence, the types of waste and the facility to where they were removed

The waste types, categories and quantities accepted into Macroom Civic Amenity Site during the reporting period are summarised in Table 2.3-Quantities of Waste Received at the Macroom Civic Amenity Facility - 2008. The compositions of the waste categories accepted are illustrated in Figure 5.1. The composition by material category is provided in the Appendices located to the rear of this report.

**Figure 5.1: Waste Composition (By Weight): Waste Received at Macroon Civic Amenity Site during the Reporting Period**

**Waste Intake By Composition**



## **6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS**

### **6.1 Incident Summary**

Condition 9 of the Waste Licence requires that the licensee shall make written records of all environmental incidents. No incidents occurred during the reporting period.

No complaints were made during the reporting period.

The activities of the site are monitored on a daily basis by means of a daily site inspection. In addition, a weekly site inspection examines the site infrastructure and the compliance status of the facility with the waste licence. Corrective action taken in response to non-conformances is in accordance with the requirements of the licence and with the site Corrective Action Procedure. No internal non-conformances were identified during the reporting period.



## **7. ENVIRONMENTAL MANAGEMENT PROGRAMME**

### **7.1 Introduction**

In association with Condition 2 (Management of the Facility) of the Waste Licence, Cork County Council (CCC) though not required to do so, proposes to establish and maintain a documented Environmental Management System (EMS) for the facility by July 30<sup>th</sup> 2004.

Schedule F (Content of the Annual Environmental Report) requires CCC to prepare a Schedule of Environmental Objectives & Targets, which shall be implemented over a five-year time frame.

A list of Objectives and Targets are given below, in compliance with Schedule F of the Licence. These Objectives and Targets will be managed by Cork County Council at the facility in Macroom and will continue for a minimum of five years, to be reviewed and submitted annually to the Agency.

#### **Objective 1**

Establish an Environmental Management System to fulfil the obligation of the Waste Licence (No. 142-1).

**Target 1.1** Preparation and submission of an Environmental Management System (EMS) to the Environmental Protection Agency by 31<sup>st</sup> July 2005.

**Target 1.2** Annual review of EMS by Cork County Council – 31<sup>st</sup> July annually.

**Target 1.3** Corrective action procedures to be submitted to the Agency by December 31<sup>st</sup> 2002 and review annually thereafter.

**Target 1.4** Establish awareness and training procedures for personnel at Macroom Civic Amenity Site by December 31<sup>st</sup> 2002 and review annually thereafter.

**Target 1.5** Submission of details of management structure for Macroom Civic Amenity Facility to the Agency by December 1<sup>st</sup> 2002 and review as necessary but at least once per annum.

**Target 1.6** Submission to the Agency of a communications programme by December 31<sup>st</sup> 2002 and review annually thereafter.

## **Objective 2**

Establish a notification and record keeping system to fulfil the requirements of a Waste Licence.

**Target 2.1** Establishment and ongoing maintenance of waste records as per Condition 10 of the Waste Licence.

**Target 2.2** Establishment of site procedures by December 31<sup>st</sup> 2002 and reviewed as necessary but at least once per annum.

**Target 2.3** Review of site procedures by December 31<sup>st</sup> 2003 and reviewed as necessary but at least once per annum.

## **Objective 3**

Maintain existing site infrastructure in accordance with the standards outlined in Condition 3 of the Waste Licence and as per best operational practices.

**Target 3.1** Provision and maintenance of a site notice board in accordance with Condition 3.3.

**Target 3.2** Maintenance of site security fencing in accordance with Condition 3.4.

**Target 3.3** Maintenance of site security including closed circuit television (CCTV) in accordance with Condition 3.

**Target 3.4** Maintenance of a waste inspection / quarantine area in accordance with Condition 3.8.

**Target 3.4** Maintenance of the facility roads and hardstanding in accordance with Condition 3.5.

**Target 3.5** Maintenance of weighbridge in accordance with Condition 3.9.

**Target 3.6** Submission to the Agency of a report on the integrity and water tightness of all the bunds, tanks and containers. Their resistance to penetration by water or other materials stored therein to be tested and demonstrated by December 31<sup>st</sup> 2002 and every three years thereafter.

**Target 3.7** Maintenance of the facility and associated office in accordance with Condition 3.6 and Condition 3.7.

## **Objective 4**

Establishment of Waste Acceptance and Handling procedures to fulfil the operational requirements of Condition 5 of the Waste Licence.

- Target 4.1** Ongoing implementation of Waste Acceptance Procedures in accordance with Condition 5.1 of the Waste Licence.
- Target 4.2** Annual Review of Waste Acceptance Procedures by December 31<sup>st</sup> 2003 and annually thereafter or as necessary.
- Target 4.3** Ongoing development and review of site operational procedures to ensure compliance with all conditions of the Waste Licence. All operational procedures to be reviewed as necessary and at least annually.
- Target 4.4** Submission to the Agency, a proposal for agreement by the Agency, of all the proposed off-site destinations to which waste will be conveyed for recovery or disposal including types of waste to be accepted at the facility by December 31<sup>st</sup> 2002. This submission shall be reviewed as necessary and at least annually. All reviews and proposed changes to be notified to the Agency.
- Target 4.5** Maintain the annual recycling rate at the Civic Amenity Facility of previous years in 2009.
- Target 4.6** Increase the quantity of Waste Electrical & Electronic Equipment (WEEE) at Macroom Civic Amenity Facility and the recycling rate per capita from 5.58 kg / capita per annum in 2006 and ultimately to achieve a recycling rate per capita of 8.6 kg / capita per annum from a catchment area of 36,400 by Dec 31<sup>st</sup> 2008.
- Target 4.7** Maintain the 2008 tonnages of all materials accepted on site for 2009.

## **Objective 5**

Continuing minimisation of Environmental Nuisances associated with Macroom Civic Amenity Facility.

**Target 5.1** Ongoing compliance with the requirements set out in Condition 7 of the Waste Licence.

**Target 5.2** Ongoing compliance with the requirements of Condition 7.3 of the Waste Licence with regard to litter control.

**Target 5.3** Ongoing compliance with the requirements of Condition 7.4 of the Waste Licence with regard to dust control.

### **Objective 6**

Establishment of a monitoring programme as outlined in Condition 8 and Schedules C & D of the Waste Licence.

**Target 6.1** Submission to the Agency, of an appropriately scaled drawing showing the location of all monitoring points that are stipulated in the Waste Licence. This shall include any additional monitoring locations required to fulfil the Waste Licence.

This shall be accompanied by a register of unique coded reference numbers for each monitoring location by 18<sup>th</sup> March 2003.

**Target 6.2** Submission to the Agency, biannually, of a report on the environmental monitoring undertaken at the site for the reporting period and the submission of that report within one month of the end of the reporting period.

**Target 6.3** Long term environmental monitoring to continue as set out in the Table 6.1.

### **Table 6.3: Long-term Environmental Monitoring**

Report Title	Report Frequency	Report Submission Date
Environmental Management System Updates	Annually	One month after the end of the year reported on
Annual Environment Report (AER)	Annually	Thirteen months from the date of commencing waste acceptance and one month after the end of each year thereafter.
Bund, tank and container integrity assessment	Every three years	Prior to the commencement of acceptance of waste and one month after end of the three-year period being reported on.
Record of Incidents	As they occur	Within 5 days of the incident.
Dust Monitoring	Bi – Annually	Ten days after end of the reporting period being reported on.
Noise Monitoring	Bi – Annually	Ten days after end of the reporting period being reported on.
Monitoring of Surface Water Quality	Bi – Annually	Ten days after end of the reporting period being reported on.
Specified Engineering Works Any other monitoring	As they arise As they occur	Prior to the works commencing Within ten days of obtaining results.

## **Objective 7**

The development of an emergency plan for the site.

**Target 7.1** Submission of an emergency response procedure to the Agency by 1<sup>st</sup> May 2003.

**Target 7.2** Establishment of a procedure to manage an adequate supply of suitable absorbent material to cope with spillage's at the facility to comply with Condition 9.3. This procedure will include details of re-ordering and disposal of such material once used by December 31<sup>st</sup> 2003. This procedure shall be reviewed as necessary and at least annually. All reviews and changes to be notified to the Agency.

### **Definition of Responsibilities**

Overall responsibilities for achievement of Objectives 1 through to 7 lie with the Facility Managers and Deputy Managers.

## **8.1. FACILITY AND ENVIRONMENTAL PROCEDURES**

### **8.1. General Overview**

Operational procedures have been drawn up to control the significant environmental aspects of the facility.

#### **Environmental Aspects Procedure**

In early 2003, a site audit was undertaken to assess the level of compliance of the facility and the site operations with the EPA Waste Licence and the conditions therein. This was used in conjunction with knowledge of operations on site to identify the environmental aspects of the activities and services over which Cork County Council as the operators of Macroom Civic Amenity Site have control or could be expected to have an influence.

The aspects and impacts are identified in accordance with the Environmental Aspects & Impacts Procedure – copies of which have been previously submitted to the Agency. Particular areas of examination to consider when identifying environmental aspects are:

- emissions to air
- waste management
- resource usage
- sensitivity of receptors
- any other relevant issues
- release to water
- ecological impact
- land contamination
- noise, dust, odour, visible impact, etc.

The impacts are assessed for significance by considering:

- Is the impact subject to regulatory control (RC)
- Is there a risk of environmental harm such as significant resource usage, water pollution, nuisance (EH)
- Is the impact subject to public concern (PC).

Aspects and impacts are listed in the Register of Environmental Aspects & Impacts. Aspects related to significant impacts are considered when compiling the schedule of Environmental Objectives & Targets.

The Register is revised in light of new potential aspects according to the Environmental Aspects & Impacts Procedure. Aspects, impacts and the environmental management programme are reviewed as required and annually as part of the management review.

### **Legal & Other Requirements:**

The Register of Environmental Legislation is maintained and updated in accordance with the legal procedure. This ensures that changes in legislation are promptly addressed and suitable action undertaken.

Legal and other requirements with regard to environmental aspects were assessed and are included in the Register of Environmental Legislation

### **Environmental Management Programme:**

Cork County Council will establish and maintain an environmental management programme within which it will set environmental objectives and targets to be achieved. Responsibility for achieving objectives and targets is designated and the necessary mechanisms and timeframes for achieving each of the objective and targets are detailed.

### **Document Control Procedure:**

An Environmental Management System (EMS) is being developed to provide a description of the core of the environmental programme for Macroom Civic Amenity Site and the interactions within the system. The environmental management system will refer to the environmental management programme, which will include the procedures used by Cork County Council to meet the sites environmental policy. In turn the procedures identify the records, forms and other support materials, which will provide evidence of the operation of the EMS.

All documentation relating to the implementation and control of the licence is held in the environmental management filing system in the site office. The register of information will be available for viewing at Floor 4 in County Hall. This includes the environmental policy, environmental management procedures, register of legislation and all site correspondence to the Agency.



A document control procedure has been developed to ensure that environmental management system documentation:

- can be located and is available at key locations
- is reviewed at least annually, revised as necessary and approved by authorised personnel
- is current. Obsolete documents are removed from work areas to ensure against unintended use
- is legible, dated for revision, identified and maintained in an orderly manner.

The document control procedure deals with the creation and modification of various types of documents. It is the facility manager's responsibility to ensure that the information contained in the procedures manual and associated documentation is kept up to date and accurate at all times.

#### **Operational Control Procedures:**

A number of the operations and activities carried out at the facility have been identified, through the site audit and through the Environmental Aspects & Impacts Procedure as having the capability of causing significant environmental impact.

Significant environmental aspects are mitigated against and controlled through the operational procedures drawn up. A list of operational procedures is provided in Table 8.1.

#### **Emergency Response & Preparedness:**

In accordance with Condition 9 "Contingency Arrangements" Cork County Council has prepared and submitted a written and documented response procedure to the Agency. This procedure addresses any emergency situation, which may originate on the site and includes provision for minimising the effects of any emergency on the environment.

The emergency preparedness and response procedure will be reviewed where appropriate, particularly after occurrence of an accident or emergency situation on site, through the corrective action procedure. Training will be provided as deemed necessary.

## **8.2 Awareness and Training Programme**

In accordance with Conditions 2.4 of the waste licence, Cork County Council recognises the need to train employees to ensure that they have the appropriate knowledge and understanding of the potential impacts their work can have on the environment. Personnel within the Council performing specifically assigned tasks at the landfill shall be qualified on the basis of appropriate education and / or training as required.

With this in mind, an awareness and training procedure has been established – copies of which have been previously submitted to the Agency.

The employees associated with the site have undergone general environmental awareness training. All employees receive this training, which covers:

- Background to the licence, licence content and conditions, EPA requirements;
- Instruction with regard to the site procedures and site operational procedures;
- Requirements to ensure operational procedures can be fulfilled;
- Requirements regarding specifically assigned tasks;
- The importance of conformance with the facilities sites environmental policy and objectives and targets;
- The potential effects of work activities, and the environmental benefits of improved performance; and
- Individual roles and responsibilities for achieving compliance with the environmental policy, objectives and targets, and with the proposed requirements of the EMS

## **8.2. Corrective Action Procedure**

Cork County Council has established and maintains a procedure regarding non-conformance, taking action to mitigate any impacts caused and initiating and completing corrective and preventative action.

Any corrective and preventative action taken to eliminate the causes of actual and potential non-conformance shall be appropriate to the magnitude of the problems and commensurate with the environmental impact encountered. Changes to documented procedures arising from corrective and preventative action shall be implemented and recorded.

**Table 0.4: List of Operational Procedures**

	<b>Contents</b>	<b>Reference / Comment</b>
<p>This list of procedures has been prepared in accordance with the requirements of the Waste Licence conditions for Macroom Civic Amenity Site. These procedures have been developed by Enda Kiernan, Executive Engineer, Waste Management (Operations), South Division, Cork County Council. These procedures have been reviewed on 31/12/2008 by Sheila Brennan Site Manager Macroom CAS..</p> <p><b>These procedures are due to be reviewed on 31/12/2009.</b></p>	Waste Acceptance Procedures	
	Documentation Control Procedures	
	Corrective Action Procedure	
	Incident Reporting Procedure	
	Acceptance, Record & Disposal of Waste Procedure	
	Site Inspection Procedure	
	Out Of Hours Messaging Procedure	
	Complaints Procedure	
	Environmental Nuisance Procedure	
	Communications Procedure	
	Site Security Procedure	
	Training & Awareness Procedure	
	Waste Inspection & Recording Procedure	
	Operational Procedures Manual	
	Emergency Response Procedure	
	Environmental Monitoring Procedure	
	Rejection of Non-Conforming Waste Loads Procedure	
	Attachment K – WL Application – Contingency	
Waste Licence Training File		

### **8.3. Management and Staff Structure**

Cork County Council operates the civic amenity facility under the management structure as set out below. Detailed curricula are presented in the located to the rear of this report.

<b>Facility Manager</b>	Ms. Sheila Brennan, Technician
<b>Deputy Facility Manager</b>	Mr. Enda Kiernan, Senior Executive Engineer, Chartered Waste Manager.
<b>Deputy Facility Manager</b>	Ms. Lisa Collins, Environmental Technician.
<b>Deputy Facility Manager</b>	Mr. Donal Kelleher, General Operative, Macroom CA site

### **8.4. Budget**

Cork County Council is committed to environmental protection and will ensure the provision of the necessary funds to maintain waste licence compliance. In 2009 a budgetary fund of € 650,000 is to be made available

### **8.5. Program for Public Information**

In accordance with Conditions 2.5.1 of the Waste Licence, Cork County Council recognise the need to ensure that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times.

Provision has been made to allow the public to view information concerning the environmental performance of the site, site procedures, and correspondence to the Agency and correspondence from the Agency at Floor 5, County Hall during normal office hours. In addition, efforts will be made on site to facilitate any genuine request from the public to view information about the facility. Copies of any such requested documents / information shall be provided at a small cost.

The Program for Public Information is presented in Table 8.2.

**Table 0.5: Program for Public Information**

<b>Facility:</b> Macroon CA Site	<b>Document Version:</b> V6
<b>Updated By:</b> S.Brennan	<b>Issue Date:</b> 30/12/08
<b>Approved By:</b> E. Kiernan	<b>Previous Version:</b> V5

<b><u>Communications Programme.</u></b>	
<b>Personnel Involved:</b>	Mr. Ted Lucey, Senior Engineer Ms. Sheila Brennan, Facility Manager Mr. Enda Kiernan, Senior Executive Engineer Mr. Derry Hayes, Administrative Officer, Waste Operations (South)
<b>Purpose of Programme:</b>	To comply with Condition 2.5.1 of Waste Licence 142-1 for Macroon Civic Amenity Facility  To ensure that members of the public can obtain information concerning the environmental and operational performance of the facility at all reasonable times.
<b>Scope of the procedure:</b>	This procedure applies to all personnel working at Macroon Civic Amenity Site, relevant waste management (operations) staff and all members of the general public interested in the environmental and operational performance of the facility. This procedure applies to all information regarding environmental aspects, environmental and operational performance.
<b>Description of the tasks involved with this procedure:</b>	<ol style="list-style-type: none"><li>1. It is the responsibility of the Administrative Officer, Waste Management (Operations), South Division, to ensure that information on the facility is available to the public.</li><li>2. The site notice board contains general information on the facility, including emergency contact numbers. It also informs the public where and when environmental monitoring information can be obtained. It is the responsibility of the Facility Manager to maintain this notice board in accordance with the conditions of the Waste Licence, and keep the information up to date at all times.</li><li>3. Cork County Council shall make available at its recognised public display area – Floor 4, County Hall – all correspondence with the Environmental Protection Agency regarding the facility. Administrative staff shall offer assistance to any member of the general public if so required.</li><li>4. All monitoring results for the facility, including quarterly and annual reports are available for inspection by the general public at all reasonable times on request.</li><li>5. There is a complaints record kept at the facility, which contains records of all complaints associated with the operations at the site received from the general public. All communications of this type are dealt with as quickly and effectively as possible. All complaints / incidents, details thereof, and details of the response of Cork County Council to them are available for public inspection at the public viewing area located on Floor 4, County Hall.</li><li>6. A copy of all reports sent to the Environmental Protection Agency is kept at the public viewing area on Floor 5, County Hall, for viewing and examination by the public.</li></ol>

## **Table 8.2 Cont'd: Program for Public Information**

### **Expected results from this Programme:**

Open lines of communication shall be maintained with all interested parties.

### **Expected results & action in light of departure from this procedure:**

Failure to properly implement this programme will result in a lack of communication with the general public leading to public unhappiness.

Failure to implement this programme may result, in information, which is not up to date, being displayed in the public viewing area.

### **Related Documentation:**

Corrective Action report Sheets  
Waste Licence 142-1  
Monitoring & sampling Records  
Quarterly & Annual reports  
Operational Procedures  
Correspondence with the Agency

### **Persons responsible for updating & amending this Procedure:**

Ms. Sheila Brennan  
Mr. Enda Kiernan

## **8.7 Bund Testing and Inspection Report**

The only double containment bund on site are the waste oil receptacles, which consists of a twin-walled PVC tank. Each tank is in turn situated within an open-top banded area constructed of reinforced concrete further containment. The concrete bunding has been subjected to a hydrostatic test, which has proved satisfactory. A report on this testing was included in a submission to the Agency in 2003 outlining the QA / QC conformity and validation during construction in accordance with Condition 3.2.3. The banded area was tested again in 2007 and was proved to be satisfactory details of which were passed onto the EPA. The banded are is not due to be retested before 2010.

Petrol is used on site occasionally as a fuel for lawn mowers and strimmers during the summer season. All such plant is hired from a local plant hire company who also provide the associated fuels, thus negating the requirement to store such fuels on site.

The only other fuel used on site is diesel for a JCB backactor and a mechanised sweeping brush. The JCB is not refuelled on site as it is used only occasionally to pack

the contents of the various bins prior to despatch. Diesel fuel for the sweeper is bought as necessary and no fuel storage take place on site. This fuel is delivered by tanker delivery truck and transferred directly to the machines. At no time is fuel for plant stored on site, as per the requirements of the licence.

## **8.7. Any other Items Specified by the Agency**

A breakdown of the qualifications, experience and training of staff is included in the Appendices located to the rear of this report.

### **8.8.1 Review of Nuisance Controls**

Schedule F (Content of the Annual Environmental Report) requires the Licensee to provide an end of year review of nuisance control at the facility.

Nuisances that are controlled on site include:

- Litter;
- Rodents;
- Birds

The presence of litter is monitored on a daily basis as part of the daily civic amenity site inspection and as part of the weekly facility inspection – all these inspections are documented and retained on site. Condition 7.3.1 places onerous requirements on the Licensee to ensure that any litter is removed immediately.

Cork County Council retains a specialist contractor to control rodents on site. There are in excess of 30 bait points on site including the site office. The contractor calls to site nine times per annum and inspects each point and replenishes any bait point that requires such. A file is retained on site, which sets out the following information:

- Date and time of visit;
- Bait points interfered with;
- Material data safety sheet on bait materials being used;
- Comments;
- Contact details.

Bird control on site is provided by means of enclosed receptacles. Any material that might attract birds is confined primarily to residual domestic waste. All such material is placed within an enclosed compactor on site. Only large bulky items are placed in open

top skips. Any receptacles whose contents are not inert are covered outside the hours of operation of the facility as per Condition 5.4.6 of the waste licence.

### **8.8.2 A Description of the Contribution of the Facility to the Achievement of Targets**

The facility has contributed to the achievement of targets set out in the **Landfill Directive with respect to biodegradable waste** in the following ways: -

- The diversion of green waste from landfill for shredding and composting at Bandon Civic Amenity Site. – 238.82 tonnes in 2008 compared to 233.56 in 2007
- The sale of home composting bins at a subsidised price to encourage and promote both the composting of suitable kitchen and garden wastes and the diversion of this waste stream from landfill – approx. 200 units;
- The operation of the site with the aim of maximising the amount of material recycled or recovered and minimising the quantities being presented for disposal, thereby aiding the pre-treatment of any waste despatched to landfill;
- By becoming involved with the Macroom E – Park in the development of a Waste Matching Website for business and householders – [www.wastematchers.com](http://www.wastematchers.com).

With respect to the **separation of recyclable materials** from the waste presented on site, outlined hereunder is a description of the operating ethos of the facility.

The charging mechanism established by the Licensee at the facility is such that users were not charged in 2008 for presenting domestic quantities of recyclable materials such as timber, scrap metal, plastics, glass etc. They are however, charged for the disposal of waste for items such as domestic waste (€8 per bag). This charging mechanism provides incentives and encourages the public to separate the recyclable portion of their waste and thus “reduce” their waste bill.

In 2008, a total of 2732.45 tonnes of material were despatched for recycling with 1776.28 tonnes of residual waste being additionally sent to landfill. It is the aim of the Licensee to further encourage and promote recycling by various means in 2009 and increase the recycling rate on site where possible and for each particular waste stream accepted whilst endeavouring to reduce the disposal element associated with the facility.



**Construction and Demolition Waste (DIY Waste)** is accepted on site from domestic users only. No builder is allowed access to site to present commercial quantities of such material. In 2008, a total of 397 tonnes of material were despatched from the facility to John A Wood, Ballygarvan, Co Cork. This facility is permitted by Cork County Council. A total of 73.9 tonnes of **Plaster board** was sent to Gypsum Recycling Ireland (WMP 238/2006) for recycling. This is to facilitate compliance with the EU Directive which requires gypsum products to be recovered / recycled.

In 2008, a total of 292.3 tonnes of **scrap metal waste** were recovered on site. In addition, a further 199.56 tonnes of Waste Electrical & Electronic Equipment (**WEEE**) were despatched from the site for off-site recycling.

With regard to the **recovery of commercial waste** on site, the quantities presented in 2008 were limited. The main materials presented were, cardboard, paper, glass, scrap metal and municipal waste. It is anticipated that these quantities will continue to be negligible due to the method of presentation by commercial premises and the manner of presentation required on site, e.g. cardboard loose and of a size capable of being placed in the hopper versus commercial waste being presented in bales and not capable of being handled or stored on site.

The Licensee has no plans at this time to establish any infrastructure for the **composting** of waste on site at this time.

The Agency has not specified any additional items to be included in this report.

## 9. RESOURCE CONSUMPTION

During the reporting period the following resources were utilised at the site:

### Energy Consumption

- Diesel 255 litres
- Electricity Day 22260 kilowatt hours (33432 at night time) Total 55692 kw
- Petrol 18 litres

## **Water Consumption**

- Water consumption at the facility is estimated at 2,000 litres. A water meter has recently been installed on site which will enable more accurate records of water consumption in the future.

Water use on site was for domestic use and wash down purposes.

**APPENDIX 1**

**Drawing No. 0013009/01/552: -  
Location Map of Environmental Monitoring Points**

## **APPENDIX 2**

### **Waste Composition by Waste Type – Macroom Civic Amenity Site 2008**

## **APPENDIX 3**

### **Detailed Staff Curricula Vitae**

## **Operator and Management Structure**

Operator Name:	Cork County Council
Operator Address:	County Hall, Victoria Cross, Carrigrohane, Cork City 021 - 4276891
Site Name:	Macroon Civic Amenity Site
Site Address:	Codrum, Macroon, Co Cork Ph 026 – 43721 Fax 026 – 43722

### **Details of Management Structure**

Cork County Council has overall responsibility for the management and operation of the Macroon Civic Amenity site. The Senior Engineer, Waste Management (Operations), Southern Division is responsible for the management of municipal waste and waste facilities in the Southern Division. The site manager with responsibility for day-to-day site operation and implementation of the Waste Licence is a Technician, who is supported by a Senior Executive Engineer and an Environmental Technician in their roles of deputy managers.

Cork County Council will provide experienced Environmental & / or Civil Engineering Consultants, as necessary, to provide technical, management and site engineering support. Consultancy services will be sought, where appropriate to assist Cork County Council with the following site management activities: -

- Provision of site engineering assistance and support;
- Environmental Monitoring in accordance with the waste licence; and
- Engineering design and document preparation.

**Senior Engineer:**

**Mr. Ted Lucey**

**021 – 4276891**

**Technician: Manager**

**Ms. Sheila Brennan**

**026 / 43721**

Qualifications

- *National Certificate in Construction Studies* 1997
- *FAS Waste M`gmt Training Programme for Site Operatives* 2003
- *On Site Training* 2003 / 2005
- *FAS Waste M`gmt Programme – Modules 1 – 8* 2005 / 2006
- *National Certificate in Local Government Studies* 2005 / 2006

Relevant Experience

Nov.2002 – Presently

*Cork County Council  
Facility Manager  
Macroom Civic Amenity Site  
Waste Licence 142-1*

**Senior Executive Engineer**

**Mr. Enda Kiernan**

086-6076039

Qualifications

- *Degree in Civil Engineering.* 1995
- *Masters Degree in Construction & Project Management* 1996
- *Waste Management Training Courses* 1999
- *Waste Management Training Site Assessment – Landfill* 1999
- *Waste Management Training Site Assessment – Recovery Facilities* 1999
- *Certified Waste Disposal Facility Manager* 2001
- *Certified Waste Recovery Facility Manager* 2001
- *Chartered Waste Manager* 2002
- *Waste Management Training Courses* 2002 - 2007
- *Chartered Environmentalist* 2004

Relevant Experience

- Meath County Council  
Landfill Manager, Basketstown Landfill  
Waste Licence 10-1  
Apr.1997 - Oct 2000
- Meath County Council,  
Facility Manager,  
Navan Civic Amenity Facility  
Feb. 2000 – Oct.2000
- Cork County Council  
Deputy Landfill Manager  
East Cork Landfill  
Waste Licence 22-1  
Nov. 2000 - Present
- Cork County Council  
Landfill Manager,  
Youghal Landfill  
Waste Licence 68-1  
Dec. 2000 – January  
2003
- Cork County Council  
Deputy Landfill Manager,  
Youghal Landfill,  
Waste Licence 68-1  
January 2003 - Present
- Cork County Council,  
Deputy Facility Manager,  
Macroom Civic Amenity Site,  
Waste Licence 142-1  
November 2002 –  
Present
- Cork County Council,  
Deputy Facility Manager,  
Raffeen Civic Amenity Site,  
Waste Licence 23-1  
February 2005 -  
Present
- Cork County Council,  
Deputy Facility Manager,  
Bandon Civic Amenity Site,  
Waste Licence R1605  
December 2005 –  
Present



## **Graduate Environmental Engineer**

**Miss Lisa Collins**

021-4533934 / 026-43721

### Qualifications

- *National Certificate in Environmental Engineering.* 1996-1998
- *National Diploma in Environmental Engineering.* 1999-2000
- *1 Day Course on Health & Safety* 2000
- *Waste Management Training Course – Site Assessment Pending* 2000
- *1-Day Course on Waste Minimisation.* 2000
- *BSc. In Environmental Engineering* 2005

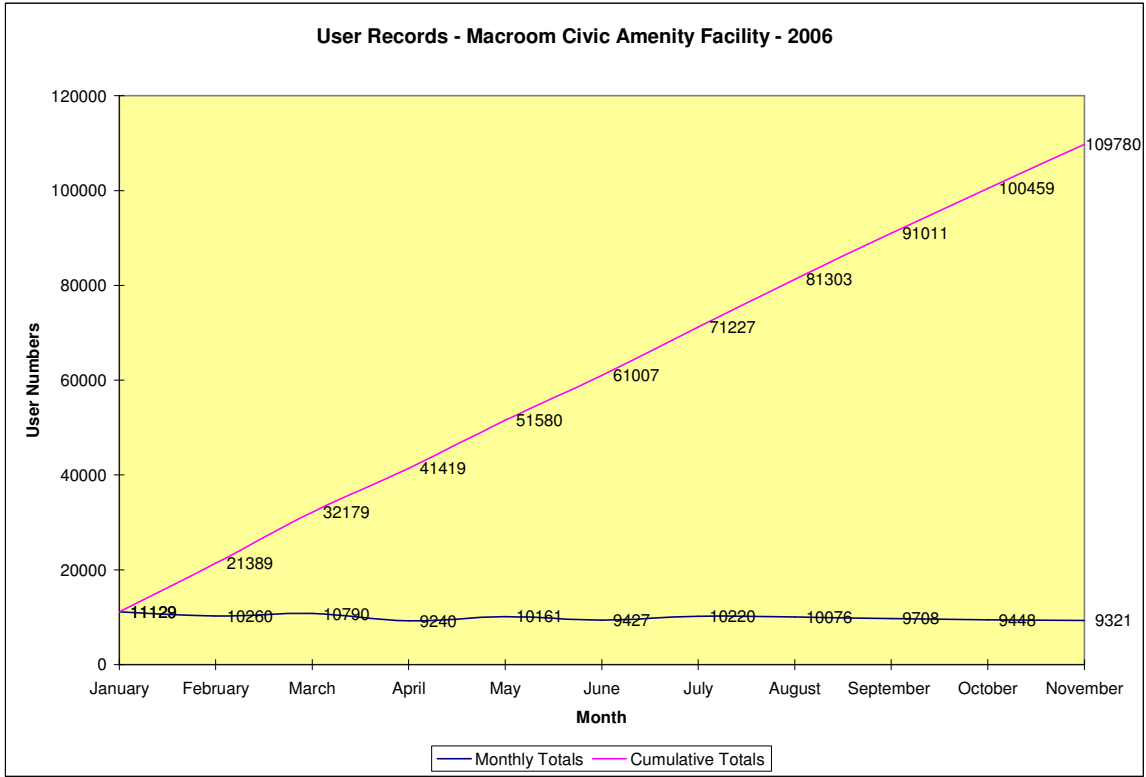
### Relevant Experience

- Cork County Council  
Deputy Landfill Manager  
East Cork Landfill  
Waste Licence 22-1 Oct 2000 – Present
- Cork County Council  
Deputy Landfill Manager  
Youghal Landfill Waste Licence 68-1 Dec 2000 – Present
- Cork County Council  
Deputy Facility Manager  
Macroom Civic Amenity Site  
Waste Licence 142-1 August 2003 – Present

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## **APPENDIX FOUR**

### **User Logs – Macroom Civic Amenity Site 2008**



**APPENDIX FIVE**

**Site Procedures – Macroom Civic Amenity Facility**

## APPENDIX SIX

### Details of Outlets Materials Despatched from Macroom Civic Amenity Site

