

# ANNUAL ENVIRONMENTAL REPORT

**REPORTING PERIOD: 1<sup>ST</sup> January 2016 – 31<sup>ST</sup> December 2016**

**WASTE LICENCE  
REGISTRATION NO:**

WL106-02

**LICENSEE:**

**BRUSCAR BHEARNA TEORANTA**

**LOCATION OF ACTIVITY:**

CARROWBROWNE,  
HEADFORD ROAD,  
CO. GALWAY.

**ATTENTION:**

Michelle McKim / Helen Boyce  
EPA, REGIONAL INSPECTOR  
JOHN MOORE ROAD, CASTLEBAR  
CO. MAYO.

**PREPARED BY:**

MR. CAMPBELL FINNIE  
(Barna Recycling)

**CONTRIBUTIONS FROM:**

MR. SEAN CURRAN  
(Managing Director)  
MR. MARK BEVANS  
(Operations Manager)  
MR. JOHNNY CURRAN  
(Deputy Facility Manager)  
P.J. TOBIN CONSULTING ENGINEERS

**DECLARATION:**

"All the data and information presented in this report has been checked and certified as being accurate. The content of the information is assured to meet licence requirements;"

*Campbell Finnie*

## **1.0 Introduction**

The following is the Annual Environmental Report (AER) for **Barna Recycling** for the period **1<sup>st</sup> January 2016 to 31<sup>st</sup> December 2016** for the Waste Transfer / Recycling Facility at Carrowbrowne, Headford Road, Co. Galway only.

This report is in compliance with Condition 10.8 of Waste Licence No. WL106-02, which states:

*“The licensee shall submit to the Agency for its agreement not later than January 31<sup>st</sup> of each year thereafter, an Annual Environmental Report (AER).”*

*The AER shall include as a minimum the information specified in Schedule G: Content of Annual Environmental Report and shall be prepared in accordance with any relevant written guidance issued by the Agency.”*

This is a consolidated report, which includes details on all aspects of the site’s environmental performance for the given period.

It is the policy of Barna Recycling to conduct its business of waste acceptance, waste storage and waste transfer at the waste transfer station in such a manner that associated activities minimise any potential adverse effects on the environment. This commitment is expressed in the company’s Environmental Management Policy, presented on the next page.

### **1.1 Environmental Policy**

This policy clearly sets out the overall aims and intentions of the company with respect to the environment. The creation of our Environmental Policy was the first step taken in the development of our EMS System, as required by Condition 2.1, of the Waste Licence. This document has been reviewed but no changes were made since last year’s submission of the report.

# Brúscar Bhearna Teoranta (BARNA RECYCLING)

## *Environmental Policy*

**Brúscar Bhearna Teoranta** provides a service to the community in the management of waste activities such as disposal and recovery which is operated under licence 106-2 from the EPA.

**Brúscar Bhearna Teoranta** regards environmental protection as an essential requirement of its operation. BBT will undertake to conduct its business in a manner which protects the environment of the Customers, Employees and Communities in which it operates. This policy is consistent in its goals with the nature, scale and environmental impacts of our activities, products and services set out in the scope of our EMS system.

**Brúscar Bhearna Teoranta** will communicate this policy to all employees as part of the induction process for full time and temporary employees and any sub contractors who are engaged to carry out work on site.

### **Guiding Principles:**

BBT is committed to...

- a) continual improvements, prevention of pollution and conservation of natural resources which are attributed to its facility.
- b) complying with relevant environmental legislation, regulations and other requirements pertinent to its facility.
- c) the continual assessment of the aspects and impacts of its activities, functions, products and services.
- d) providing a framework for setting and reviewing the environmental objectives and targets of its environmental action programmes.
- e) providing appropriate training and continual communication on its environmental issues to all its employees.
- f) Making this policy & any all other official records available to the public.

**Signed:** \_\_\_\_\_  
**FACILITY MANAGER**

**Date:** \_\_\_\_\_

**Signed:** \_\_\_\_\_  
**MANAGING DIRECTOR**

**Date:** \_\_\_\_\_

## **2. Waste Management at the Facility**

### **2.1 Waste Activities**

As required by Schedule G of our waste licence the principal processes of the facility are outlined below:

1. The recycling / recovery of various waste streams for the diversion of these wastes away from landfill. The facility enables Barna Recycling and other waste contractors, local authorities to collect waste from domestic/commercial/industrial sectors and deliver it to our facility for sorting / processing and then transfer for disposal or recovery.
2. Within the facility heavy plant enables the segregation of the waste, (ie. a manual picking station, ballistic separating machines, magnets, edicurrents, balers, shredders, a pre-shredding machine, loading shovels, forklifts (with forks), forklifts (with clamp attachments), grab machines, screeners, crushers). This machinery is used on a daily basis to help separate, move and manage the various waste streams on site.
3. The facility also has a fully operational civic amenity site which is open to the public. The civic amenity site is staffed during operational hours and allows the segregation of general waste, mixed recyclables, cardboard, glass, timber, stones, metal, clothes, batteries and all types of white goods and electrical items.
4. Currently C&D waste is managed using a screener and a crusher and on occasions a trommel which work in tandem and allow us to recycle the good quality inert materials.
5. Our purpose built composting process has been operational since 1<sup>st</sup> January 2013. This is a back end process forced aeration system which processes the compostable material to European Standards. The process is licenced through our existing EPA licence and is also monitored by Department of Agriculture Food and the Marine under licence number COMP-40.

A summary of the current waste activities carried out at our facility are detailed below:

- Landfill Waste – the majority of mixed waste loads that come to our facility are able to be segregated in some way either by hand or by machine (grab or loading shovel) to ensure that most of the recyclable material which is in a reasonable condition is recovered. Bulky waste which is removed would be kept in storage in preparation for transfer in our own vehicles to landfill for disposal.
- Recoverable MSW – during 2015 we introduced a new process of recovering MSW on site. The facility is approved by the Agency for the production of a mechanically treated EWC 191212 material. In effect this means our general waste is pre-sorted to remove bulky and recyclable material before being shredded and trommelled to remove organic fines and metals and finally is baled / wrapped in preparation for transfer. The material is stored on site until a bulk shipment accumulates (approximately 3000 tonnes) and then it is transferred to Galway Harbour for export in a ship for recovery in European outlets. All transfers out of the Country are done so via the TFS procedure.

- Mixed Recyclables – the company have invested in some of the best technology available to process domestic kerbside recyclables which are collected around Connacht. The ballistic separators, magnet, edicurrent and manual picking station allow us to produce segregated recyclable fractions from the original mixed recyclables and send for recycling. In addition one line is supported by a Titech Optical Sorting Machine which has enhanced our ability to produce good quality recyclables. Materials currently being recycled via the picking station include paper, newspaper, cardboard, plastic bottles, plastic bags, plastic trays, steel and aluminium cans. This process is currently able to process around 6 tonnes of recyclables per hour on one shift.
- Composting Facility – we operate a compost process at the site which is in a separate area to the other materials. This process allows for the delivery of segregated collections of catering / food waste, green waste and sludge. This material is mixed and put through a controlled composting system to allow it to break down. The material is controlled by measuring temperature, adding air and monitoring on a daily basis to ensure the process is working. The material is then screened and put in a pasteurisation bunker to reach 70 degrees for one hour before being testing for EColi and Salmonella. Once tests are successfully passed and material has reached the temperatures the material is deemed to be stable it can be shipped as a compost.
- Separately collected recycling – the company also encourage recycling from our commercial customers and source segregated collections are available throughout Connacht. These collections result in collection and recycling of cardboard, paper (various grades), metals and plastics (various grades). These materials are checked for quality and once passed are baled immediately and sent for recycling. There is no requirement to process these materials through the picking station.
- Confidential shredding – the company also offers customers a confidential shredding service where materials are collected in pre-paid bags or they have the option to deliver to our facility. Materials are shredded and then can be sent off site for recycling (99% of the time it is paper products) but we can shred all types of material in the machine that we have.
- Timber processing – timber is processed in its own dedicated area at the site and the material is processed using two machines a waste reducer (pre-shedder) and a timber shredder which shreds the segregated clean timber to a size which can be sent off site for recycling into chipboard, landfill cover or for boiler fuel. Alternatively timber can be sorted and sent off site in bulk trailers to OCR Waste Management in Roscommon where they carry out the shredding.
- Metal recycling – the processing of metal products is carried out within the transfer building in a dedicated area. We have a grab machine and baler available specifically used for baling this material into a form that can be easily sold as scrap to the UK or Irish metal markets. Alternatively material is stored in a specific area and transferred loose to a local recycler. Some sorting of metal on higher grade materials is also carried out where possible.
- Civic Amenity Site – the site is staffed during operational hours and allows the segregation of general waste, mixed recyclables, cardboard, glass, timber, stones, metal, clothes, batteries and all types of white goods and electrical items.

- General recycling – Barna Recycling are always reviewing markets around the world to try and offer as many recycling avenues as possible to our customers and in addition to the items listed above are currently collecting, segregating and sending the following waste types off site for recycling:

end of life tyres, glass, batteries, industrial plastics, agricultural plastics, plasterboard (gypsum), street sweepings and RDF.

This section of the report was intended to give the reader a summary of the material types and the processing procedures used by Barna Recycling during the reporting period. Any additional information required is available by contacting the company directly.

## 2.2 Waste Activities Licensed

The waste activities carried out above are done so within the boundaries of our EPA Waste Licence WL106-2 and the Waste Management Act 1996. The following list is a summary of the waste types and activities for which we are licenced:

*Licensed waste disposal activities, in accordance with the Third Schedule of the Waste Management Act, 1996.*

- Class 11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.**
- Class 12. Repackaging prior to submissions to any activity referred to in a preceding paragraph of this 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 was produced.**

*Licensed waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Act, 1996.*

- Class 2. Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processors).**
- Class 3. Recycling or reclamation of metals and metal compounds.**
- Class 4. Recycling or reclamation of other inorganic materials.**
- Class 12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule:**
- Class 13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:**

### 2.3 Composition and Quantity of Waste Received at the Facility

The Waste Transfer Station at Barna Recycling is limited not only in the materials that can be accepted at the facility but also by the quantities which can be accepted. The following is a summary of the tonnages of different waste streams permitted to be accepted during this reporting period:

#### Waste Categories and Quantities acceptable at Transfer Station

| <b>WASTE TYPE</b>         | <b>MAXIMUM TONNES PER ANNUM</b>    |
|---------------------------|------------------------------------|
| Household                 | 55,500 option A or 55,500 option B |
| Commercial                | 17,500 option A or 17,500 option B |
| Construction & Demolition | 30,000 option A or 50,000 option B |
| Industrial Non Haz Solids | 23,000 option A or 23,000 option B |
| Biodegradable Waste       | 40,000 option A or 20,000 option B |
| <b>TOTAL</b>              | <b>166,000 tonnes</b>              |

These tonnages are set and documented in our EPA licence WL106-2 (schedule A).

### 2.4 Waste In / Out Results for this year and past years (2002 – 2016)

This section of the report outlines the quantities and composition of the waste types accepted and removed from the facility for either disposal or recovery / recycling.

As **required** by the Agency and written in our EPA Licence results for the current reporting year (2016) AND ALL PREVIOUS years are included therefore results for reporting periods 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015 and the current reporting period of 2016 are outlined below.

This year's figures have been included with EWC codes as per the requirement in Schedule G of our waste licence WL106-2 and are in the new reporting format spreadsheet as published by the Agency.

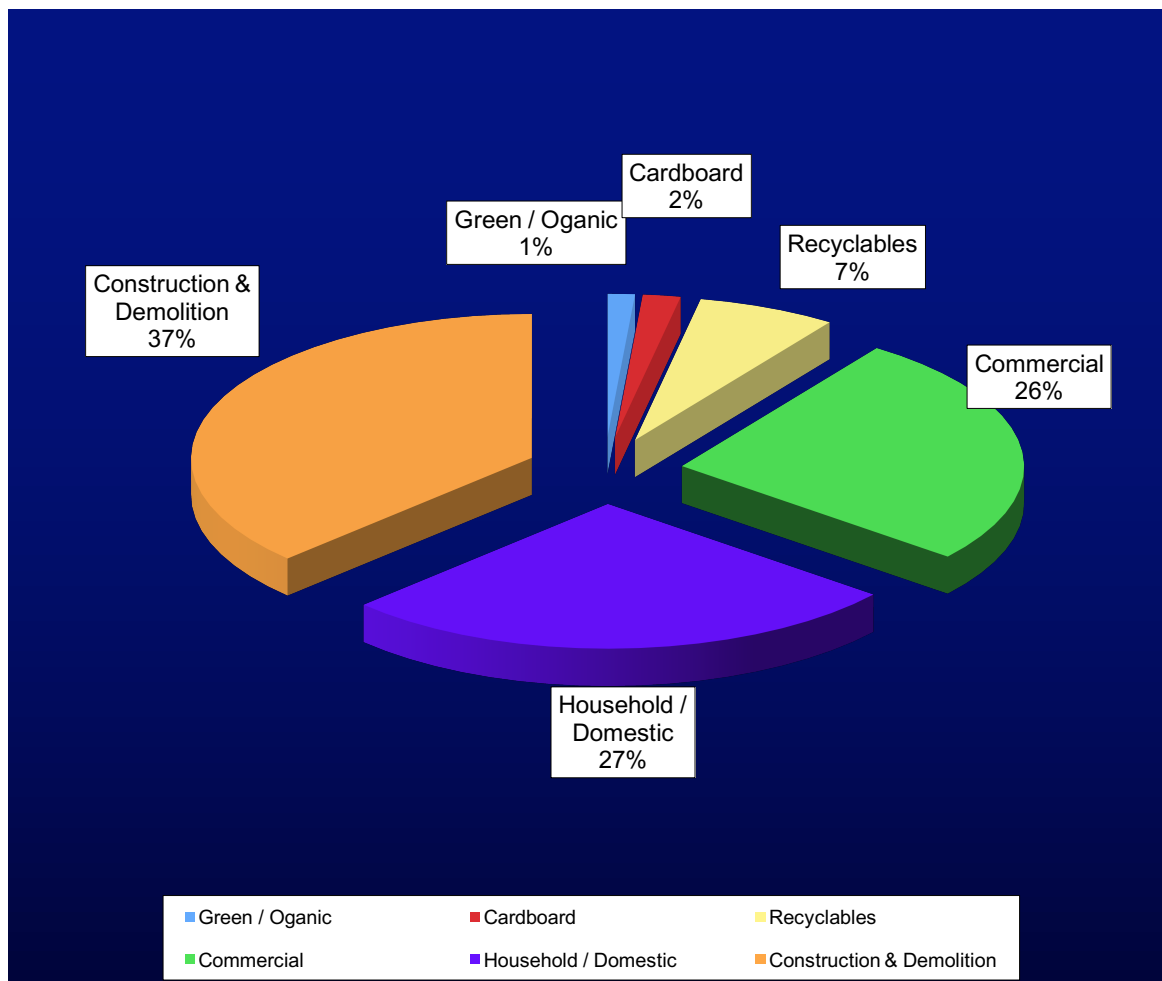
## Waste In / Out Results for 2002 Period

**Table 2.4.1: Waste Incoming during period 1<sup>st</sup> January 2002 – 31<sup>st</sup> December 2002**

The following table outlines the waste that was received on site at the Barna Recycling facility during the previous reporting period:-

| Waste Type                  | Tonnes           | %     |
|-----------------------------|------------------|-------|
| Green / Organic / Timber    | 480.84           | 1.3%  |
| Cardboard                   | 700.39           | 1.8%  |
| Recyclables                 | 2595.08          | 6.6%  |
| Commercial                  | 10,245.00        | 26.1% |
| Household / Domestic        | 10,557.39        | 26.9% |
| Construction and Demolition | 14,616.47        | 37.3% |
| <b>Total</b>                | <b>39,195.17</b> |       |

Figure 2.1 illustrates the percentage breakdown of materials received on site for each of the main categories detailed above.

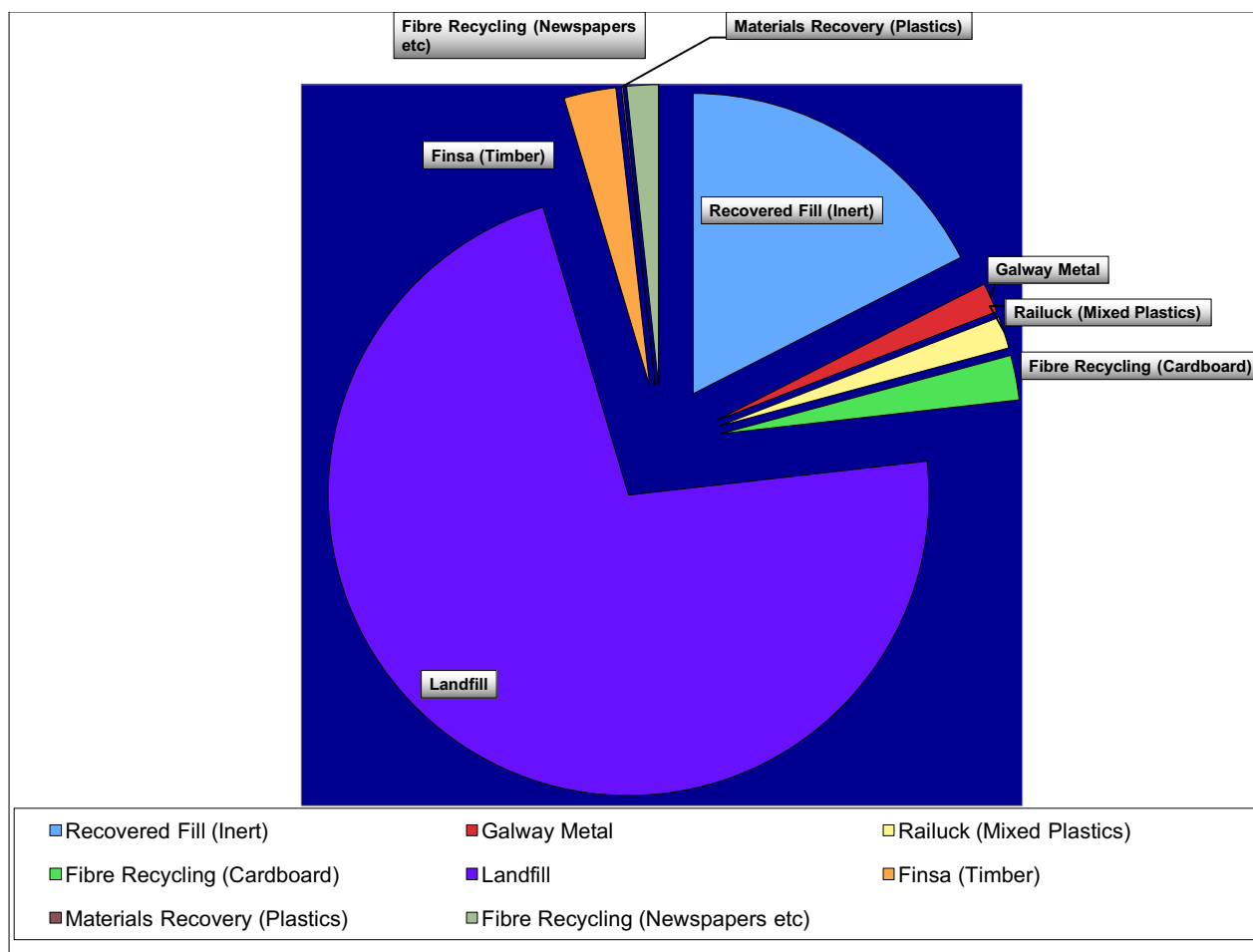


**Figure 2.4.2: Percentage Breakdown of Waste Received on site from 1<sup>st</sup> January – 31<sup>st</sup> December 2002**



**Table 2.4.3: Total Wastes Outgoing 1<sup>st</sup> January 2002 – 31<sup>st</sup> December 2002**

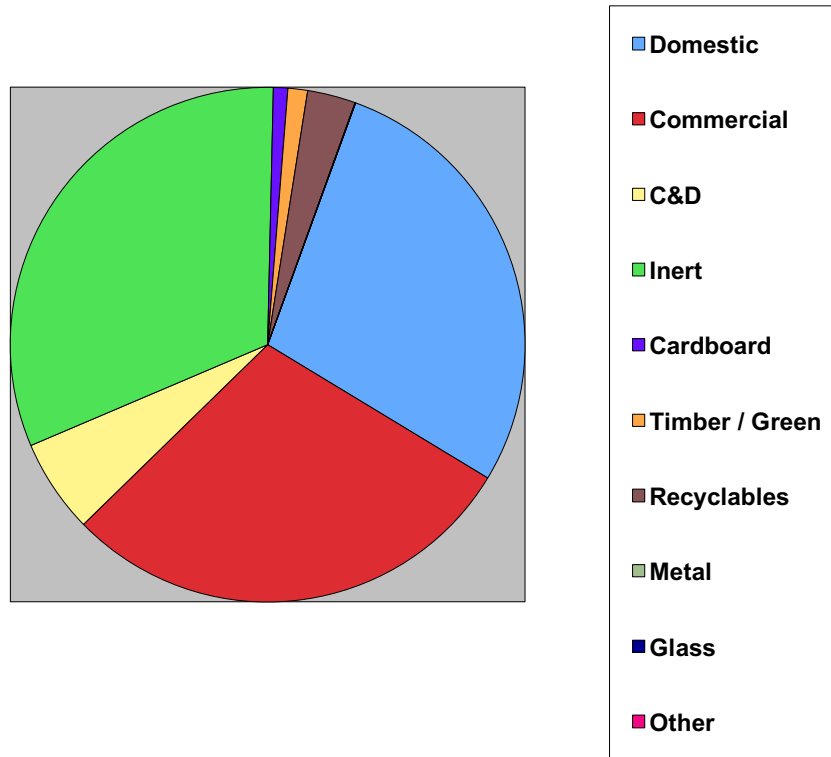
| Waste Type                       | Tonnes           | % of Waste In |
|----------------------------------|------------------|---------------|
| Materials Recovery (Plastic)     | 37.17            | 0.1%          |
| Galway Metal                     | 639.5            | 1.6%          |
| Railuck (Mixed Plastics)         | 662.91           | 1.7%          |
| Fibre Recycling (Newspapers etc) | 677.98           | 1.7%          |
| Fibre Recycling (Cardboard)      | 919.50           | 2.4%          |
| Finsa Products (Timber)          | 1,092.50         | 2.8%          |
| Recovered Fill                   | 6859.40          | 17.5%         |
| Ballinasloe Landfill             | 28,232.69        | 72%           |
| <b>Total</b>                     | <b>39,121.65</b> |               |



**Figure 2.4.4: Percentage Breakdown of Waste outgoing from 1<sup>st</sup> January 2002 to 31<sup>st</sup> December 2002**

Waste In / Out Reports for 2003

## Waste In 2003



**Figure 2.4.5:**  
Breakdown of Waste Received on site from 1<sup>st</sup> January – 31<sup>st</sup> December 2003

| WASTE TYPE                      | WASTE IN (tonnes per annum) |
|---------------------------------|-----------------------------|
| <i>Domestic</i>                 | 20015.92                    |
| <i>Commercial</i>               | 20663.18                    |
| <i>C &amp; D</i>                | 4199.2                      |
| <i>Inert</i>                    | 22612.4                     |
| <i>Cardboard</i>                | 643.2                       |
| <i>Timber / Green</i>           | 878.55                      |
| <i>Recyclables</i>              | 2154.1                      |
| <i>Metal</i>                    | 15                          |
| <i>Glass</i>                    | 3.54                        |
| <i>Others (public weighing)</i> | 8.02                        |
| <b>TOTAL</b>                    | <b>71193.08</b>             |

**Table 2.4.3: Total Wastes Incoming 1<sup>st</sup> January 2003 – 31<sup>st</sup> December 2003**

## Waste Out 2003

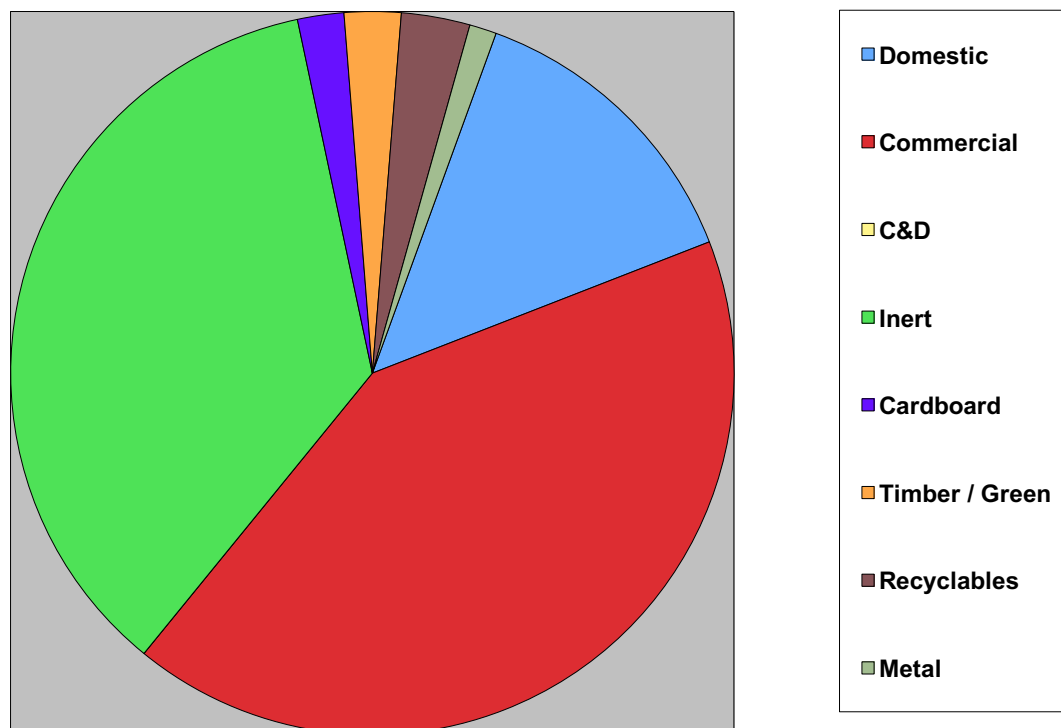


Figure 2.4.6:  
Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January – 31<sup>st</sup> December 2003

| WASTE TYPE            | WASTE OUT (tonnes per annum) |
|-----------------------|------------------------------|
| <i>Domestic</i>       | 8545.18                      |
| <i>Commercial</i>     | 26393.02                     |
| <i>Inert</i>          | 22602.2                      |
| <i>Cardboard</i>      | 1308.24                      |
| <i>Timber / Green</i> | 1601.04                      |
| <i>Recyclables</i>    | 1937.22                      |
| <i>Metal</i>          | 761.87                       |
| <b>TOTAL</b>          | <b>63,418.72</b>             |

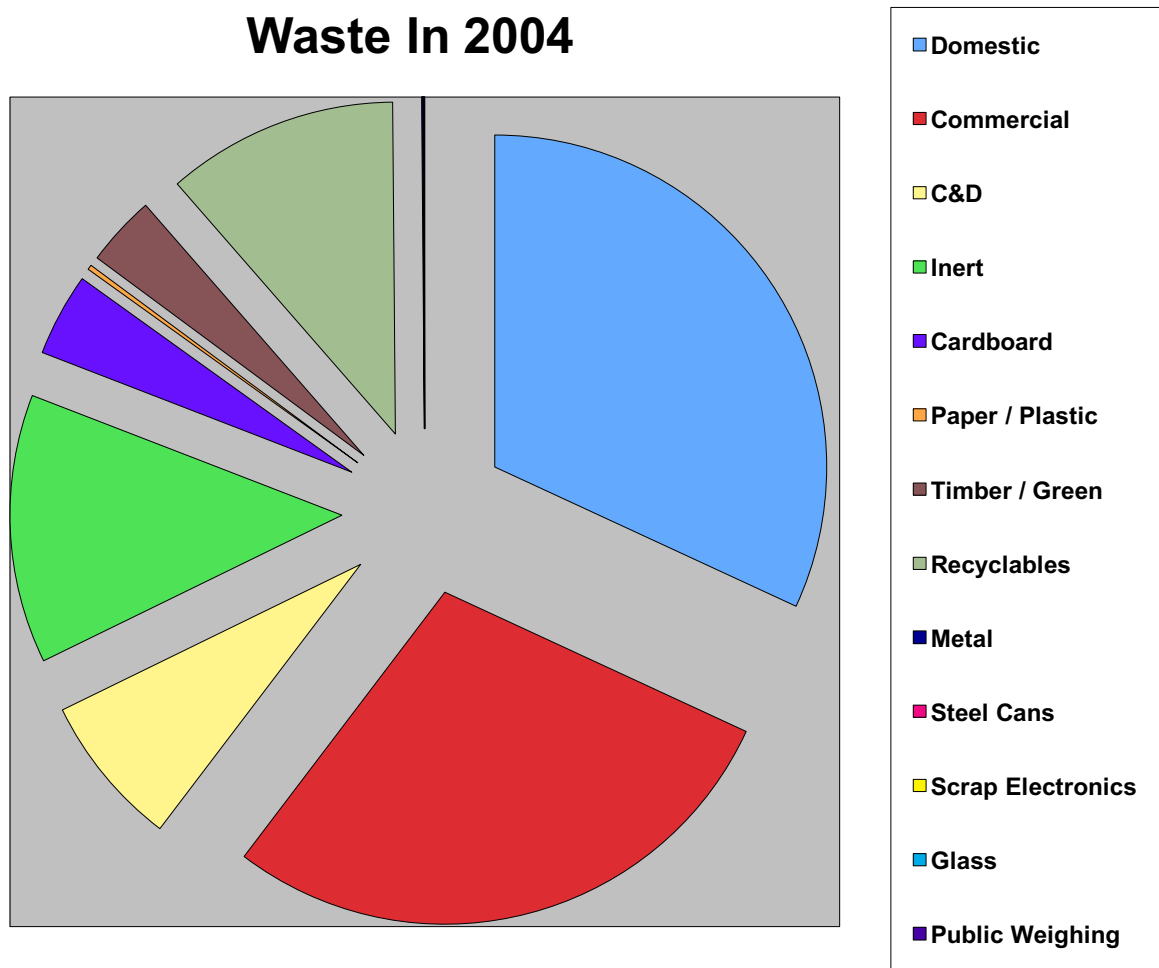
Table 2.4.7: Total Wastes Outgoing 1<sup>st</sup> January 2003 – 31<sup>st</sup> December 2003

| WASTE TYPE            | RECYCLING (tonnes per annum) | % OF TOTAL RECYCLING                               |
|-----------------------|------------------------------|--|
| <i>Inert</i>          | 22602.2                      | 80.1%  |
| <i>Cardboard</i>      | 1308.24                      | 4.6%   |
| <i>Timber / Green</i> | 1601.04                      | 5.7%   |
| <i>Recyclables</i>    | 1937.22                      | 6.9%   |
| <i>Metal</i>          | 761.87                       | 2.7%   |
| <b>TOTAL</b>          | <b>28,210.57</b>             | <b>39% of total waste in was recycled for 2003</b> |

Table 2.4.8: Recycling waste out details for 1<sup>st</sup> January – 31<sup>st</sup> December 2003

Waste In / Out Reports for 2004

## Waste In 2004

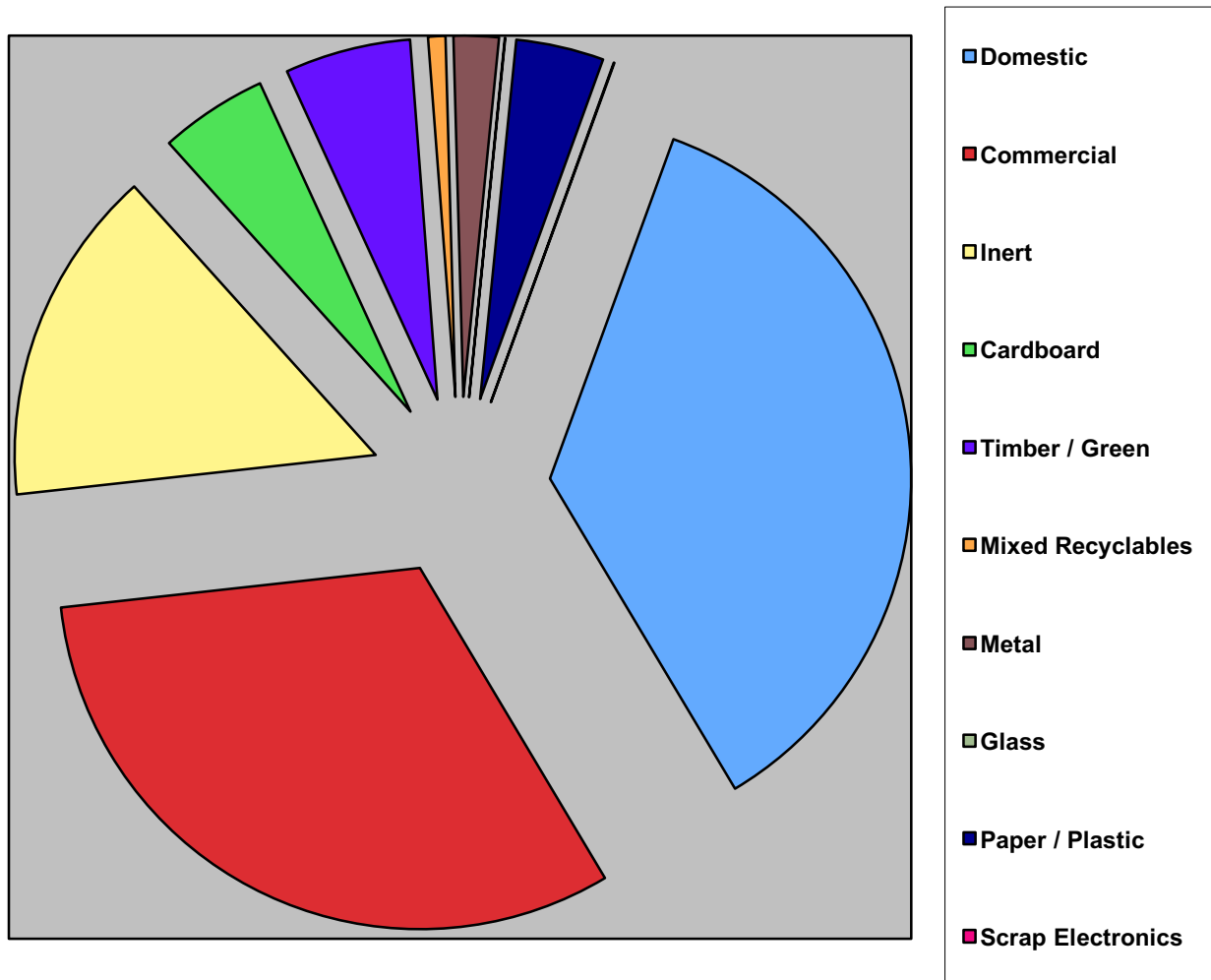


**Figure 2.4.9:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January – 31<sup>st</sup> December 2004**

| WASTE TYPE                        | WASTE IN (tonnes per annum) |
|-----------------------------------|-----------------------------|
| <i>Domestic</i>                   | 19,796.62                   |
| <i>Commercial</i>                 | 17,691.68                   |
| <i>C &amp; D</i>                  | 4575.1                      |
| <i>Inert</i>                      | 8115.82                     |
| <i>Cardboard</i>                  | 2506.52                     |
| <i>Paper / Plastic</i>            | 143.74                      |
| <i>Scrap Electronics</i>          | 1.20                        |
| <i>Timber / Green</i>             | 2111.85                     |
| <i>Mixed Kerbside Recyclables</i> | 6990.80                     |
| <i>Metal</i>                      | 45.00                       |
| <i>Steel Cans</i>                 | 5.23                        |
| <i>Glass</i>                      | 15.76                       |
| <i>Public Weighing</i>            | 15.88                       |
| <b>TOTAL</b>                      | <b>62,045.20</b>            |

**Table 2.4.10: Total Wastes Incoming 1<sup>st</sup> January 2004 – 31<sup>st</sup> December 2004**

## Waste Out 2004



**Figure 2.4.11:**  
**Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January – 31<sup>st</sup> December 2003**

| WASTE TYPE               | WASTE OUT (tonnes per annum) |
|--------------------------|------------------------------|
| <i>Domestic</i>          | 19,299.33                    |
| <i>Commercial</i>        | 17,114.50                    |
| <i>Inert</i>             | 8115.82                      |
| <i>Cardboard</i>         | 2591.73                      |
| <i>Paper / Plastic</i>   | 2113.6                       |
| <i>Timber / Green</i>    | 3028.51                      |
| <i>Recyclables</i>       | 416.23                       |
| <i>Scrap Electronics</i> | 14.69                        |
| <i>Glass</i>             | 9.98                         |
| <i>Metal</i>             | 1085.37                      |
| <b>TOTAL</b>             | <b>53,789.76</b>             |

**Table 2.4.12: Total Wastes Outgoing 1<sup>st</sup> January 2003 – 31<sup>st</sup> December 2004**

All outlets for the materials going out have been approved in advance by the EPA. Our outlets for the waste types above are listed below:

- 1) Metal goes to Galway Metal
- 2) Timber / Green waste goes to Finsa Forest Products or Weyerhaeuser Europe
- 3) Paper / Cardboard / Steel Cans / Aluminium / Plastic / Scrap plastic all goes to AWS (Alternative Waste Solutions)
- 4) Glass goes to Eclipse Recycling
- 5) Scrap Electronics go to Cara Environmental
- 6) Inert material goes into our permitted site within our facility
- 7) All Domestic and Commercial waste goes to the Poolboy landfill site in Ballinasloe
- 8) In addition to the above Barna Recycling also have Batteries collected by Returnbatt and send tyres as required to Crumb Rubber or to Crossmore Transport

Barna Recycling requests and keeps on file recycling certificates from all the companies that take material from the premises for recycling / disposal / recovery.

| <b>WASTE TYPE</b>        | <b>RECYCLING<br/>(tonnes per annum)</b> | <b>% OF TOTAL<br/>RECYCLING</b>                        |
|--------------------------|---|--|
| <i>Inert</i>             | 8115.82                                 | 46.73%   |
| <i>Cardboard</i>         | 2591.73                                 | 14.9%  |
| <i>Timber / Green</i>    | 3028.51                                 | 17.4%  |
| <i>Recyclables</i>       | 416.23                                  | 2.4%   |
| <i>Paper / Plastic</i>   | 2113.6                                  | 12.17%   |
| <i>Scrap Electronics</i> | 14.69                                   | 0.1%   |
| <i>Metal</i>             | 1085.37                                 | 6.3%   |
| <b>TOTAL</b>             | <b>17,365.95</b>                        | <b>28% of total waste in was<br/>recycled for 2004</b> |

**Table 2.4.13: Recycling waste out details for 1<sup>st</sup> January 2004 – 31<sup>st</sup> December 2004**

## Waste In 2005

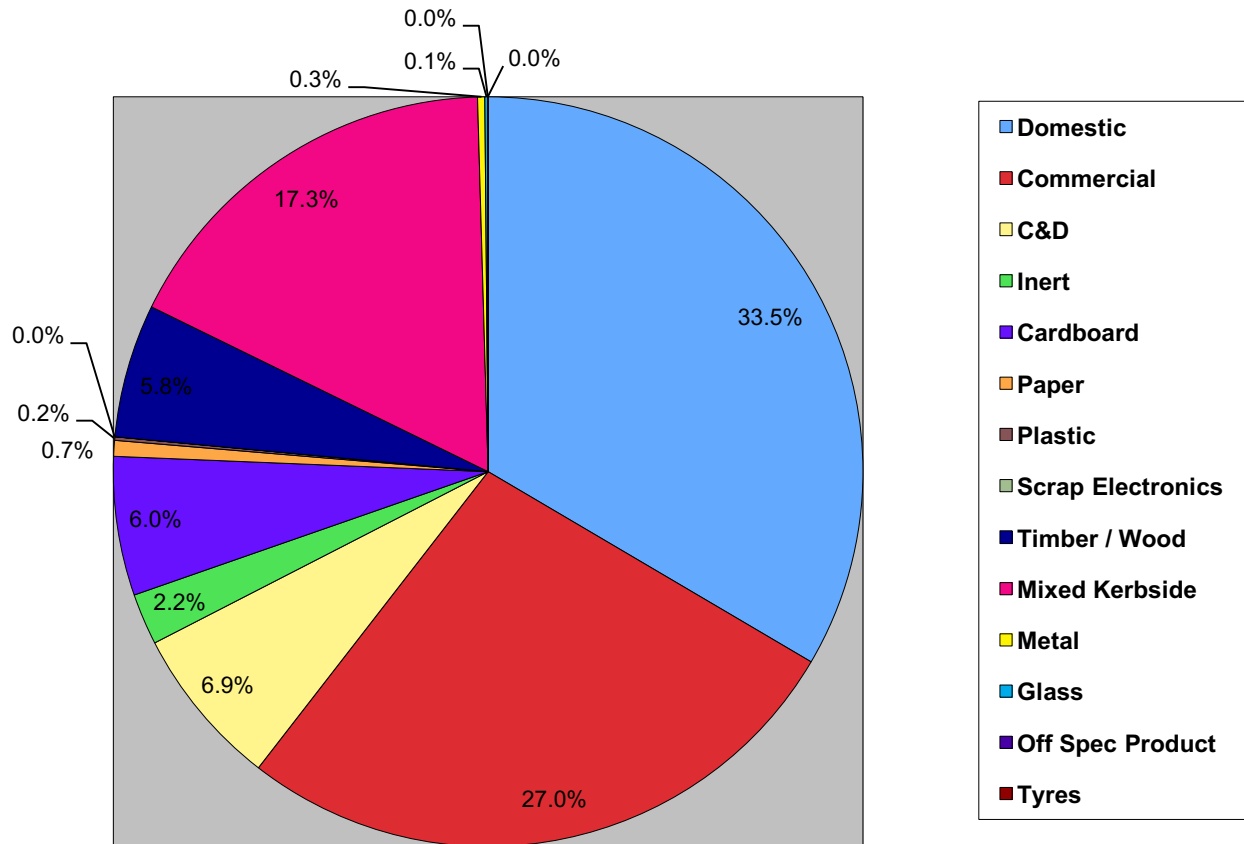
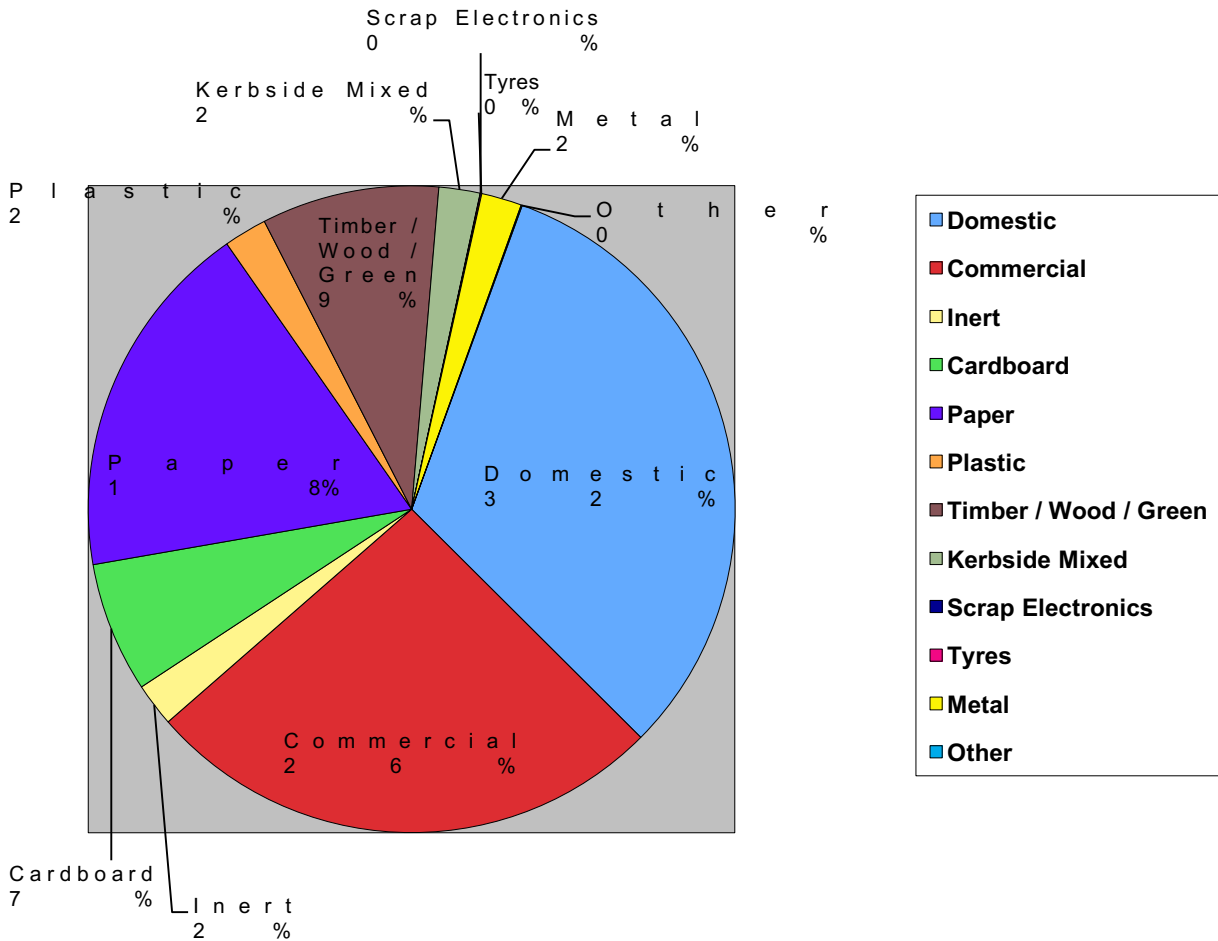


Figure 2.4.14: Breakdown of Waste Received on site from 1<sup>st</sup> January 2005 – 31<sup>st</sup> December 2005

| WASTE TYPE                                   | WASTE IN (tonnes per annum) |
|--|-----------------------------|
| <i>EWC 200301 Domestic</i>                   | 22134.78                    |
| <i>EWC 200100 Commercial</i>                 | 17874.97                    |
| <i>EWC 170100 C &amp; D</i>                  | 4594.86                     |
| <i>EWC 200202 Inert</i>                      | 1463.6                      |
| <i>EWC 200101 Cardboard</i>                  | 3962.02                     |
| <i>EWC 200101 Paper</i>                      | 449.78                      |
| <i>EWC 200103 Plastic</i>                    | 100.52                      |
| <i>EWC 160201 Scrap Electronics</i>          | 0.76                        |
| <i>EWC 200138 Timber / Wood / Green</i>      | 3808.28                     |
| <i>EWC 150101 Mixed Kerbside Recyclables</i> | 11443.15                    |
| <i>EWC 170407 Metal</i>                      | 205.12                      |
| <i>EWC 170202 Glass</i>                      | 78.98                       |
| <i>EWC 160304 Off Spec Product</i>           | 1.17                        |
| <i>EWC 160103 Tyres</i>                      | 12.95                       |
| <b>TOTAL</b>                                 | <b>66130.94</b>             |

Table 2.4.15: Total Wastes Incoming 1<sup>st</sup> January 2005 – 31<sup>st</sup> December 2005

# Waste Out 2005



**Figure 2.5.0:**  
Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2005 – 31<sup>st</sup> December 2005

| WASTE TYPE                              | WASTE OUT (tonnes per annum) |
|---|------------------------------|
| <i>EWC 200301 Domestic</i>              | 21593.80                     |
| <i>EWC 200100 Commercial</i>            | 17667.66                     |
| <i>EWC 200202 Inert</i>                 | 1463.6                       |
| <i>EWC 200101 Cardboard</i>             | 4408.69                      |
| <i>EWC 200101 Paper</i>                 | 12221.53                     |
| <i>EWC 200103 Plastic</i>               | 1457.49                      |
| <i>EWC 200138 Timber / Wood / Green</i> | 6003.09                      |
| <i>EWC 150101 Recyclables</i>           | 1391.82                      |
| <i>EWC 160201 Scrap Electronics</i>     | 14.96                        |
| <i>EWC 160103 Tyres</i>                 | 40.32                        |
| <i>EWC 170407 Metal</i>                 | 1366.35                      |
| <b>Other</b>                            | 36.7                         |
| <b>TOTAL</b>                            | <b>67666.01</b>              |

**Table 2.5.1: Total Wastes Outgoing 1<sup>st</sup> January 2005 – 31<sup>st</sup> December 2005**



## 2.5.2 Summary of Recycling Outlets used in 2005

Barna Recycling are committed to finding new recycling markets in Ireland, Europe and Worldwide to ensure materials produced from the picking station and the other areas in our waste transfer station are sent to the best possible recycling outlets.

All outlets for the materials going out have been approved in advance by the EPA.

A summary of the recycling outlets used for 2005 is included below:

- 1) Metal products are sent to S.Norton Metal Merchants in Liverpool. Alternative outlets include Midland Scrap Metal (Portlaoise) and Galway Metal.
- 2) Timber / Wood / Green waste goes to Finsa Forest Products or Weyerhaeuser Europe
- 3) Paper / Cardboard / Steel Cans / Aluminium / Plastic (various grades) all go via AWS (Alternative Waste Solutions) for recycling
- 4) Paper / Cardboard are also sent to CWS (Complete Waste Solutions) for recycling
- 5) Paper / Cardboard are also sent to Highlander International Recycling for recycling
- 6) Paper / Cardboard are also sent to Parry & Evans for recycling
- 7) Scrap Electronics go to Cara Environmental
- 8) Inert material goes into our permitted site within our facility
- 9) Tyres are sent to Crossmore Transport in Limerick for recycling
- 10) All non recoverable waste goes to the Poolboy Landfill Site in Ballinasloe

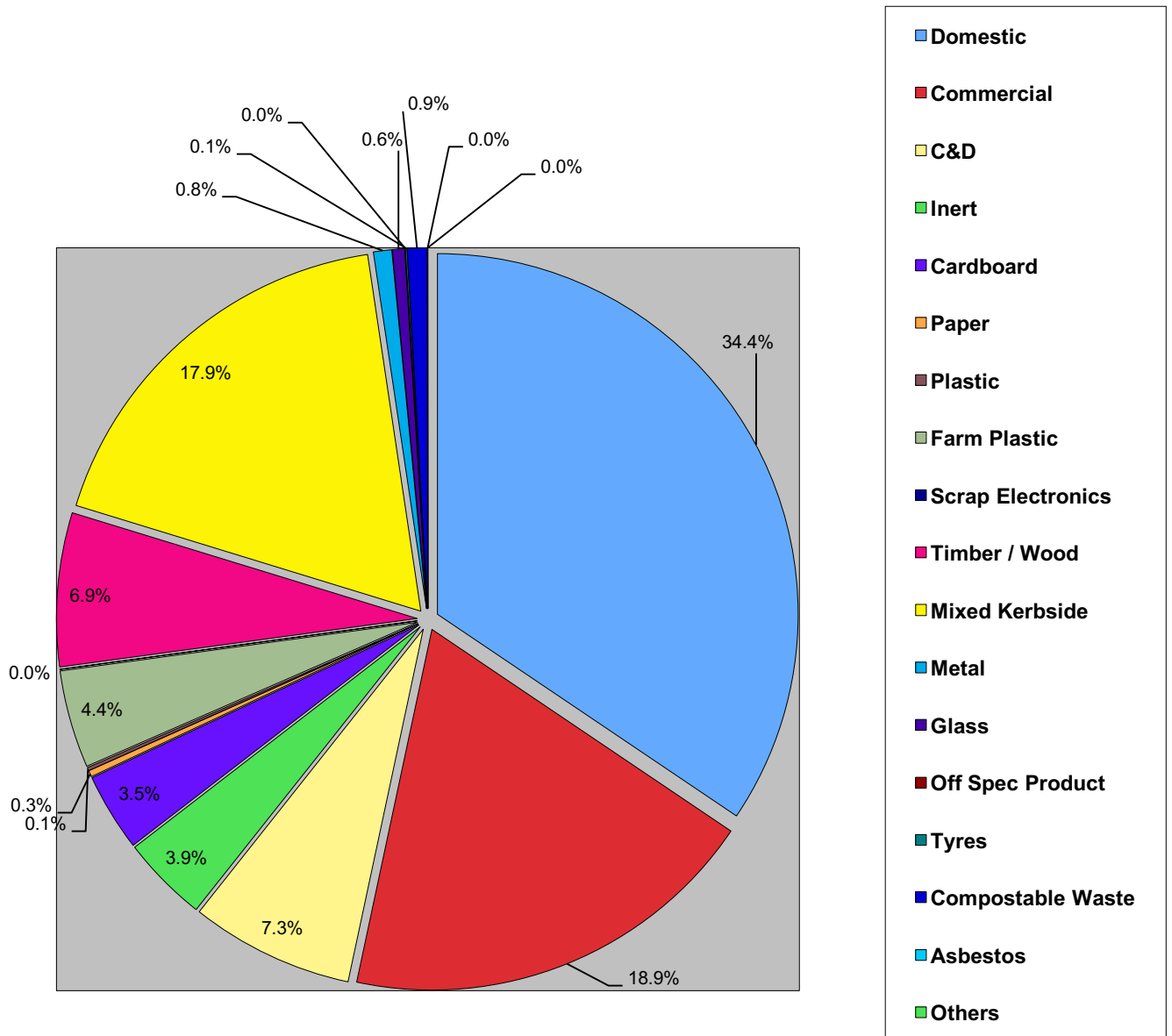
Barna Recycling requests and keeps on file recycling certificates from all the companies that take material from the premises for recycling / disposal / recovery.

| <b>WASTE TYPE</b>                       | <b>RECYCLING<br/>(tonnes per<br/>annum)</b> | <b>% OF TOTAL<br/>RECYCLING</b>                        |
|---|---|--|
| <i>EWC 200202 Inert</i>                 | 1463.6                                      | 5%   |
| <i>EWC 200101 Cardboard</i>             | 4408.69                                     | 15%  |
| <i>EWC 200101 Paper</i>                 | 12221.53                                    | 43%  |
| <i>EWC 200103 Plastic</i>               | 1457.49                                     | 5%   |
| <i>EWC 200138 Timber / Wood / Green</i> | 6003.09                                     | 21%  |
| <i>EWC 150101 Recyclables</i>           | 1391.82                                     | 5%   |
| <i>EWC 160201 Scrap Electronics</i>     | 14.96                                       | Less than 1%   |
| <i>EWC 160103 Tyres</i>                 | 40.32                                       | Less than 1%   |
| <i>EWC 170407 Metal</i>                 | 1366.35                                     | 5%   |
| <b>Other</b>                            | 36.7  | Less than 1%   |
| <b>TOTAL</b>                            | <b>28404.55</b>                             | <b>43% of total waste in was<br/>recycled for 2005</b> |

**Table 2.5.3: Breakdown of recycling waste out details for 1<sup>st</sup> January – 31<sup>st</sup> December 2005**

**Waste In / Out Reports for 2006**

**WASTE IN**

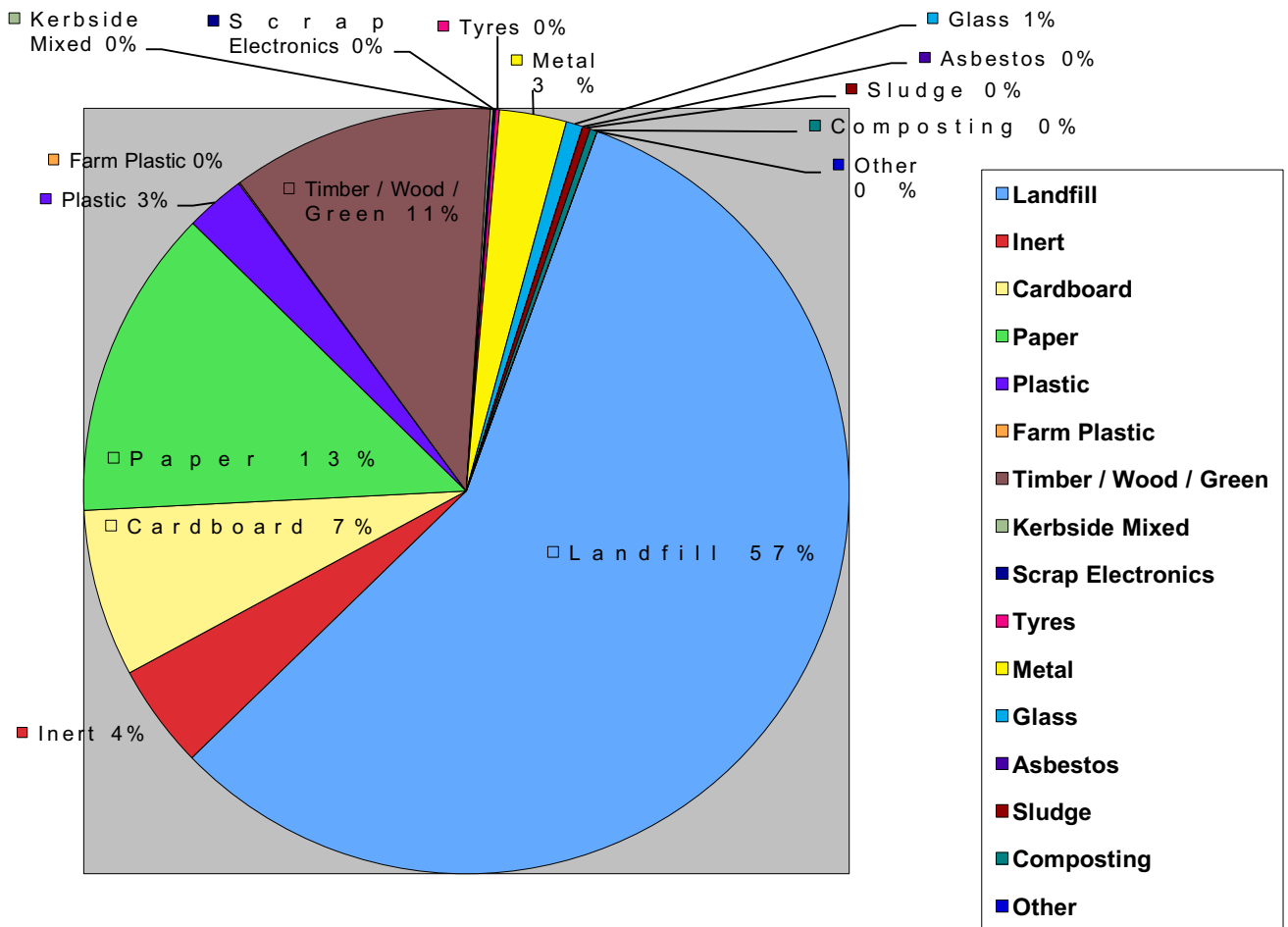


**Figure 2.6.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2006 – 31<sup>st</sup> December 2006**

| <b>WASTE TYPE</b>   | <b>WASTE IN (tonnes per annum)</b> |
|---|------------------------------------|
| <i>EWC 200301 Domestic</i>  | 29328.22                           |
| <i>EWC 200100 Commercial</i>  | 16095.29                           |
| <i>EWC 170100 C &amp; D</i>   | 6234.14                            |
| <i>EWC 200202 Inert</i>   | 3295.65                            |
| <i>EWC 200101 Cardboard</i>   | 2980.02                            |
| <i>EWC 200101 Paper</i>   | 239.55                             |
| <i>EWC 200103 Plastic</i>   | 121.71                             |
| <i>EWC 200104 Farm Plastic</i>  | 3729.12                            |
| <i>EWC 160201 Scrap Electronics</i>   | 6.89                               |
| <i>EWC 200138 Timber / Wood / Green</i>   | 5862.05                            |
| <i>EWC 150101 Mixed Kerbside Recyclables</i>  | 15244.71                           |
| <i>EWC 170407 Metal</i>   | 698.92                             |
| <i>EWC 170202 Glass</i>   | 470.45                             |
| <i>EWC 160304 Off Spec Product</i>  | 15.28                              |
| <i>EWC 200108 Food Waste</i><br><i>EWC 200201 Garden &amp; Park Waste</i><br><i>EWC 200304 Sludge</i><br><i>Compostable materials</i> | 753.51                             |
| <i>EWC 160103 Tyres</i>   | 59.78                              |
| <i>EWC 170605 Asbestos</i>  | 3.10                               |
| <i>Others (Public weighing)</i>   | 8.45                               |
| <b>TOTAL</b>  | <b>85146.84</b>                    |

**Table 2.6.1: Total Wastes Incoming 1<sup>st</sup> January 2006 – 31<sup>st</sup> December 2006**

## Waste Out 2006



**Figure 2.6.2: Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2006 – 31<sup>st</sup> December 2006**

| WASTE TYPE  | WASTE OUT (tonnes per annum) |
|---|------------------------------|
| <i>EWC 191212 Mechanically treated mixed waste for landfill (Commercial / Domestic)</i> | 45754.84                     |
| <i>EWC 200202 Inert</i>   | 3518.12                      |
| <i>EWC 200101 Cardboard</i>   | 5660.60                      |
| <i>EWC 200101 Paper</i>   | 10516.62                     |
| <i>EWC 200103 Plastic</i>   | 2023.17                      |
| <i>EWC 200104 Farm Plastic</i>  | 47.12                        |
| <i>EWC 200138 Timber / Wood / Green</i>   | 8875.78                      |
| <i>EWC 150101 Recyclables</i>   | 90.35                        |
| <i>EWC 160201 Scrap Electronics</i>   | 78.44                        |
| <i>EWC 160103 Tyres</i>   | 130.64                       |
| <i>EWC 170407 Metal</i>   | 2267.10                      |
| <i>EWC 200102 Glass</i>   | 559.56                       |
| <i>EWC 170605 Asbestos</i>  | 9.04                         |
| <i>EWC 200304 Sludge</i>  | 258.74                       |
| <i>EWC200108 Composting</i>   | 240.89                       |
| <i>Others</i>   | 1.62                         |
| <b>TOTAL</b>  | <b>80,032.63</b>             |

**Table 2.6.3: Total Wastes Outgoing 1<sup>st</sup> January 2006 – 31<sup>st</sup> December 2006**

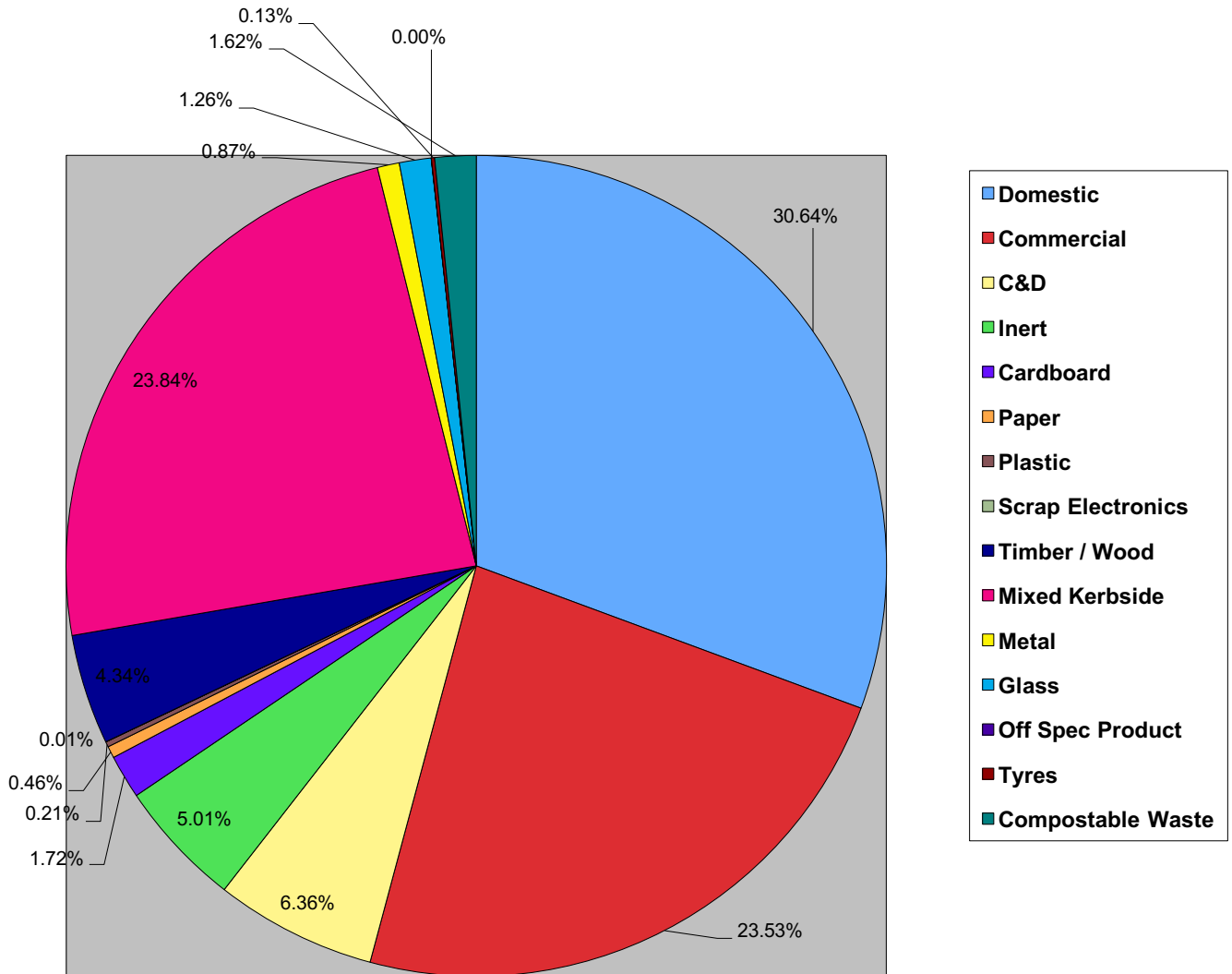
Breakdown of the recycling elements for 2006:

| WASTE TYPE                              | RECYCLING (tonnes per annum) | % OF TOTAL RECYCLING                               |
|---|------------------------------|--|
| <i>EWC 200202 Inert</i>                 | 3518.12                      | 10%  |
| <i>EWC 200101 Cardboard</i>             | 5660.60                      | 17%  |
| <i>EWC 200101 Paper</i>                 | 10516.62                     | 31%  |
| <i>EWC 200103 Plastic</i>               | 2023.17                      | 6%   |
| <i>EWC 200138 Timber / Wood / Green</i> | 8875.78                      | 26%  |
| <i>EWC 150101 Recyclables</i>           | 90.35                        | Less than 1%                                       |
| <i>EWC 160201 Scrap Electronics</i>     | 78.44                        | Less than 1%                                       |
| <i>EWC 160103 Tyres</i>                 | 130.64                       | Less than 1%                                       |
| <i>EWC 170407 Metal</i>                 | 2267.10                      | 7%   |
| <i>EWC200108 Composting</i>             | 240.89                       | Less than 1%                                       |
| <i>EWC 200102 Glass</i>                 | 559.56                       | 2%   |
| <i>EWC 200104 Farm Plastic</i>          | 47.12                        | Less than 1%                                       |
| <b>TOTAL</b>                            | <b>34008.39 tonnes</b>       | <b>40% of total waste in was recycled for 2006</b> |

**Table 2.6.4: Breakdown of recycling waste out details for 1<sup>st</sup> January – 31<sup>st</sup> December 2006**

**Waste In / Out Reports for 2007**

**WASTE IN**



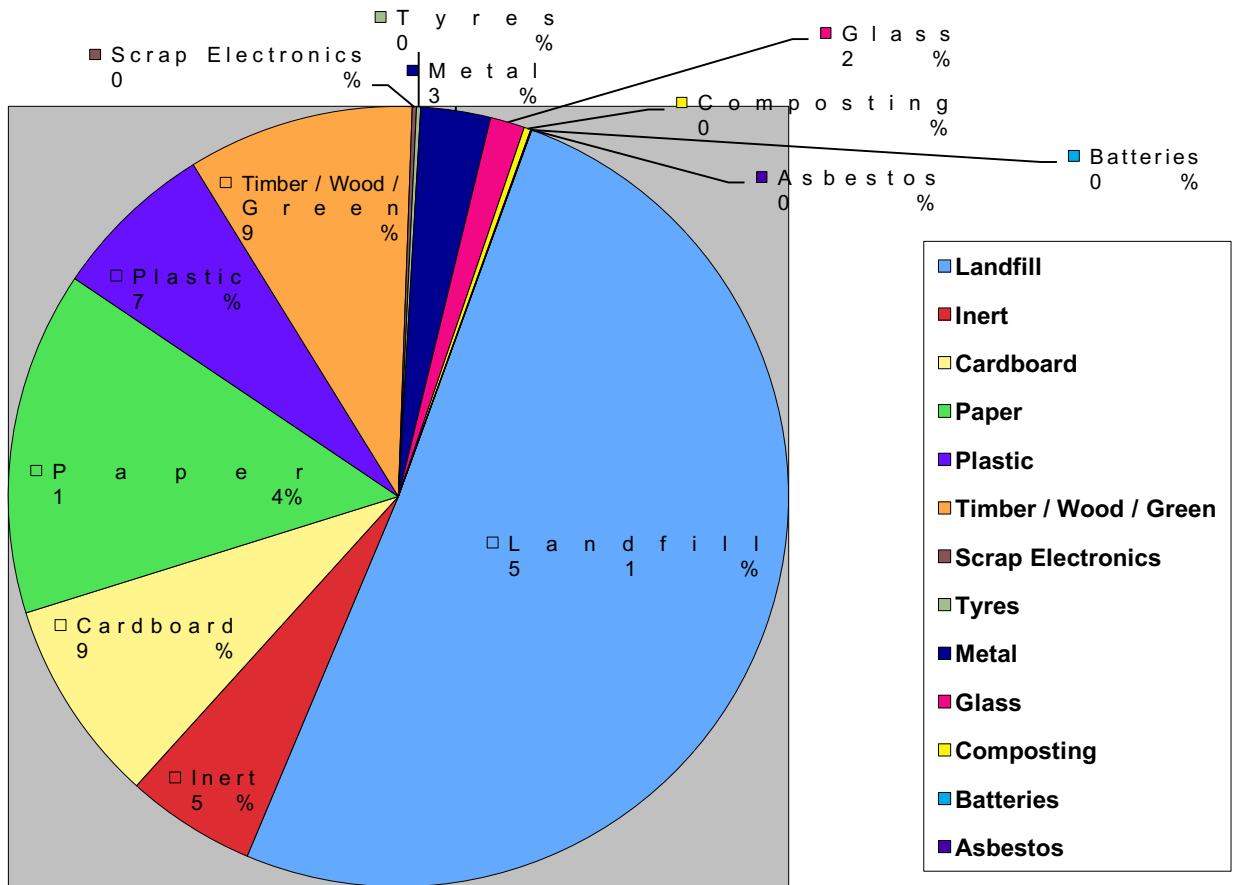
**Figure 2.7.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2007 – 31<sup>st</sup> December 2007**

Waste in for 2007: Table of quantities by waste type

| <b>WASTE TYPE</b>   | <b>WASTE IN (tonnes per annum)</b> |
|---|------------------------------------|
| <i>EWC 200301 Domestic</i>  | 28840.92                           |
| <i>EWC 200100 Commercial</i>  | 22150.64                           |
| <i>EWC 170100 C &amp; D</i>   | 5988.48                            |
| <i>EWC 200202 Inert</i>   | 4720.19                            |
| <i>EWC 200101 Cardboard</i>   | 1621.48                            |
| <i>EWC 200101 Paper</i>   | 436.96                             |
| <i>EWC 200103 Plastic</i>   | 193.75                             |
| <i>EWC 160201 Scrap Electronics</i>   | 5.46                               |
| <i>EWC 200138 Timber / Wood / Green</i>   | 4082.74                            |
| <i>EWC 150101 Mixed Kerbside Recyclables</i>  | 22440.51                           |
| <i>EWC 170407 Metal</i>   | 817.07                             |
| <i>EWC 170202 Glass</i>   | 1181.63                            |
| <i>EWC 160304 Off Spec Product</i>  | 4.60                               |
| <i>EWC 200108 Food Waste</i><br><i>EWC 200201 Garden &amp; Park Waste</i><br><i>EWC 200304 Sludge</i><br><i>Compostable materials</i> | 1525.88                            |
| <i>EWC 160103 Tyres</i>   | 120.96                             |
| <b>TOTAL</b>  | <b>94,131.27</b>                   |

**Table 2.7.1: Total Wastes Incoming 1<sup>st</sup> January 2007 – 31<sup>st</sup> December 2007**

## Waste Out 2007



**Figure 2.7.2: Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2007 – 31<sup>st</sup> December 2007**



Waste out for 2007: Table of quantities by waste type

| WASTE TYPE  | WASTE OUT (tonnes per annum) |
|---|------------------------------|
| <i>EWC 191212 Mechanically treated mixed waste for landfill (Commercial / Domestic)</i> | 44558.56                     |
| <i>EWC 200202 Inert</i>   | 4720.19                      |
| <i>EWC 200101 Cardboard</i>   | 7431.38                      |
| <i>EWC 200101 Paper</i>   | 12512.83                     |
| <i>EWC 200103 Plastic</i>   | 5927.02                      |
| <i>EWC 200138 Timber / Wood / Green</i>   | 8230.50                      |
| <i>EWC 160201 Scrap Electronics</i>   | 154.38                       |
| <i>EWC 160103 Tyres</i>   | 151.76                       |
| <i>EWC 170407 Metal</i>   | 2534.82                      |
| <i>EWC 200102 Glass</i>   | 1253.18                      |
| <i>EWC 160601 Batteries</i>   | 33.34                        |
| <i>EWC 170605 Asbestos</i>  | 3.38                         |
| <i>EWC200108 or EWC 200304 Compostable Material</i>                                     | 1443.65                      |
| <b>TOTAL</b>  | <b>88954.99</b>              |

**Table 2.7.3: Total Wastes Outgoing 1<sup>st</sup> January 2007 – 31<sup>st</sup> December 2007**

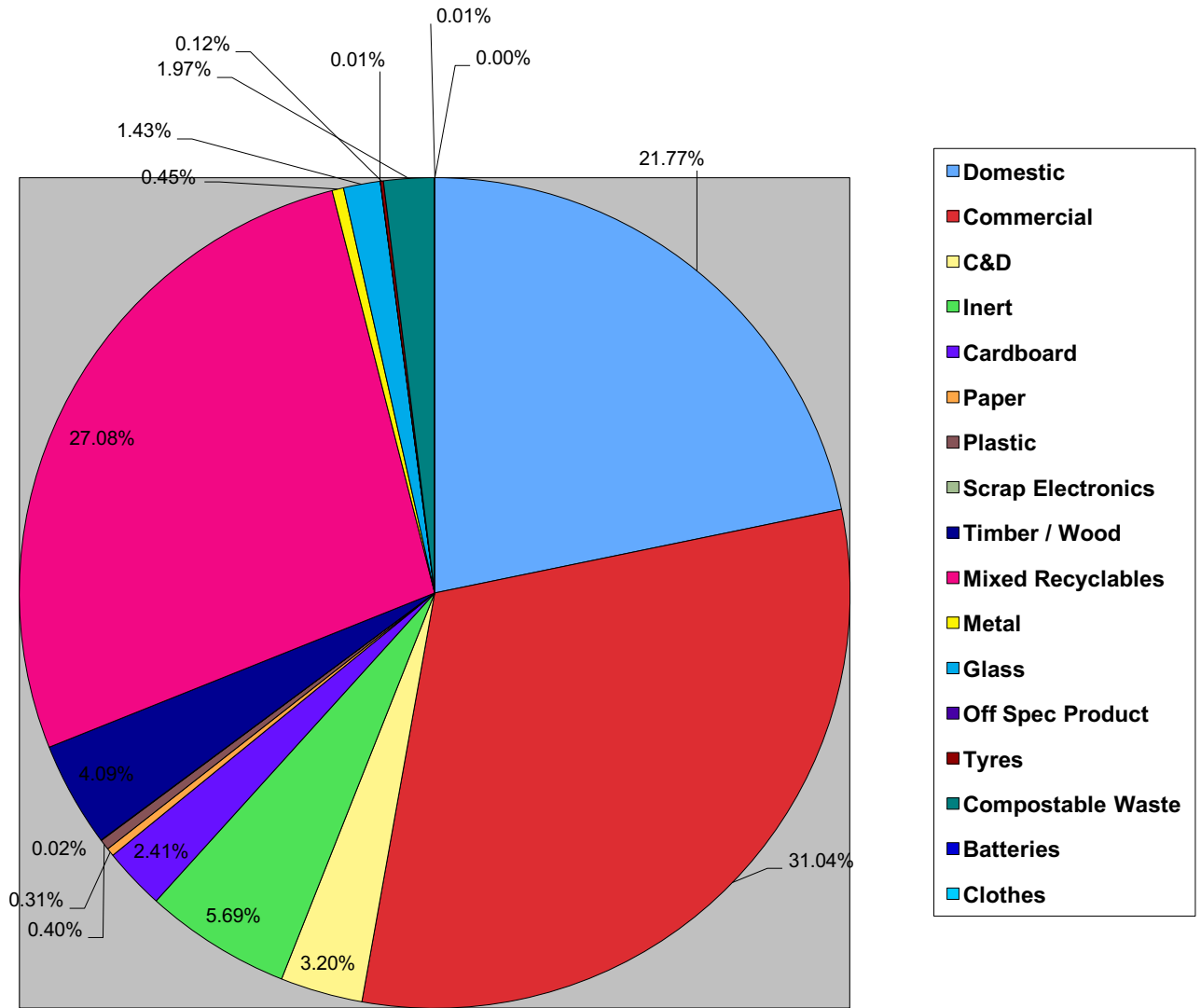
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2007:

| WASTE TYPE<br>(Recyclable materials only)           | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING                            |
|---|---------------------------------|--|
| <i>EWC 200202 Inert</i>                             | 4720.19                         | 10%  |
| <i>EWC 200101 Cardboard</i>                         | 7431.38                         | 17%  |
| <i>EWC 200101 Paper</i>                             | 12512.83                        | 28%  |
| <i>EWC 200103 Plastic</i>                           | 5927.02                         | 13%  |
| <i>EWC 200138 Timber / Wood / Green</i>             | 8230.50                         | 19%  |
| <i>EWC 160201 Scrap Electronics</i>                 | 154.38                          | Less than 1%                                       |
| <i>EWC 160103 Tyres</i>                             | 151.76                          | Less than 1%                                       |
| <i>EWC 170407 Metal</i>                             | 2534.82                         | 6%   |
| <i>EWC 200102 Glass</i>                             | 1253.18                         | 3%   |
| <i>EWC 160601 Batteries</i>                         | 33.34                           | Less than 1%                                       |
| <i>EWC200108 or EWC 200304 Compostable Material</i> | 1443.65                         | 3%   |
| <b>TOTAL</b>  | <b>44,393.05</b>                | <b>47% of total waste in was recycled for 2007</b> |

**Table 2.7.4: Breakdown of recycling waste out details for 1<sup>st</sup> January 2007 – 31<sup>st</sup> December 2007**

**Waste In / Out Reports for 2008**

**WASTE IN (2008)**



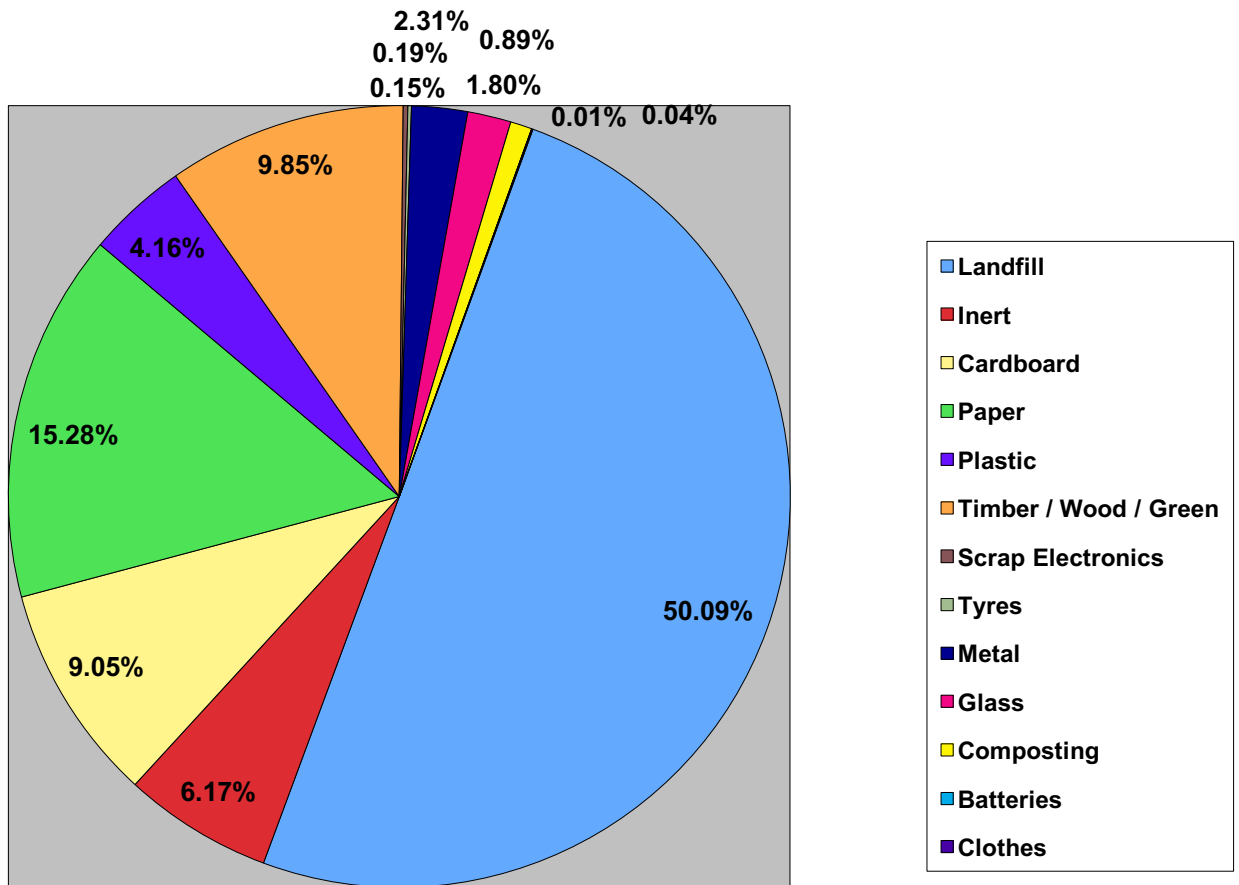
**Figure 2.8.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2008 – 31<sup>st</sup> December 2008**

Waste in for 2008: Table of quantities by waste type

| <b>WASTE TYPE</b>   | <b>WASTE IN (tonnes per annum)</b> |
|---|------------------------------------|
| <i>EWC 200301 Domestic</i>  | 18539.17                           |
| <i>EWC 200100 Commercial</i>  | 26433.11                           |
| <i>EWC 170100 C &amp; D</i>   | 2729.37                            |
| <i>EWC 200202 Inert</i>   | 4846.37                            |
| <i>EWC 200101 Cardboard</i>   | 2055.49                            |
| <i>EWC 200101 Paper</i>   | 267.90                             |
| <i>EWC 200103 Plastic</i>   | 344.76                             |
| <i>EWC 160201 Scrap Electronics</i>   | 16.00                              |
| <i>EWC 200138 Timber / Wood / Green</i>   | 3481.57                            |
| <i>EWC 150101 Mixed Kerbside Recyclables</i>  | 23064.37                           |
| <i>EWC 170407 Metal</i>   | 382.35                             |
| <i>EWC 170202 Glass</i>   | 1216.29                            |
| <i>EWC 160304 Off Spec Product</i>  | 2.56                               |
| <i>EWC 200108 Food Waste</i><br><i>EWC 200201 Garden &amp; Park Waste</i><br><i>EWC 200304 Sludge</i><br><i>Compostable materials</i> | 1674.44                            |
| <i>EWC 200110 Clothes</i>   | 0.10                               |
| <i>EWC 160601 Batteries</i>   | 6.20                               |
| <i>EWC 160103 Tyres</i>   | 100.18                             |
| <b>TOTAL</b>  | <b>85,160.23 TONNES</b>            |

**Table 2.8.1: Total Wastes Incoming 1<sup>st</sup> January 2008 – 31<sup>st</sup> December 2008**

## Waste Out 2008



**Figure 2.8.2: Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2008 – 31<sup>st</sup> December 2008**

Waste out for 2008: Table of quantities by waste type

| WASTE TYPE  | WASTE OUT (tonnes per annum) |
|---|------------------------------|
| <i>EWC 191212 Mechanically treated mixed waste for landfill (Commercial / Domestic)</i> | 39362.81                     |
| <i>EWC 200202 Inert</i>   | 4846.37                      |
| <i>EWC 200101 Cardboard</i>   | 7107.66                      |
| <i>EWC 200101 Paper</i>   | 12008.22                     |
| <i>EWC 200103 Plastic</i>   | 3272.20                      |
| <i>EWC 200138 Timber / Wood / Green</i>   | 7743.46                      |
| <i>EWC 160201 Scrap Electronics</i>   | 150.60                       |
| <i>EWC 160103 Tyres</i>   | 114.99                       |
| <i>EWC 170407 Metal</i>   | 1816.43                      |
| <i>EWC 200102 Glass</i>   | 1411.75                      |
| <i>EWC 160601 Batteries</i>   | 10.82                        |
| <i>EWC 200110 Clothes</i>   | 35.26                        |
| <i>EWC 170802 Gypsum / Plasterboard</i>   | 264.70                       |
| <i>EWC200108 or EWC 200304 Compostable Material</i>                                     | 699.78                       |
| <b>TOTAL</b>  | <b>78845.05</b>              |

**Table 2.8.3: Total Wastes Outgoing 1<sup>st</sup> January 2008 – 31<sup>st</sup> December 2008**

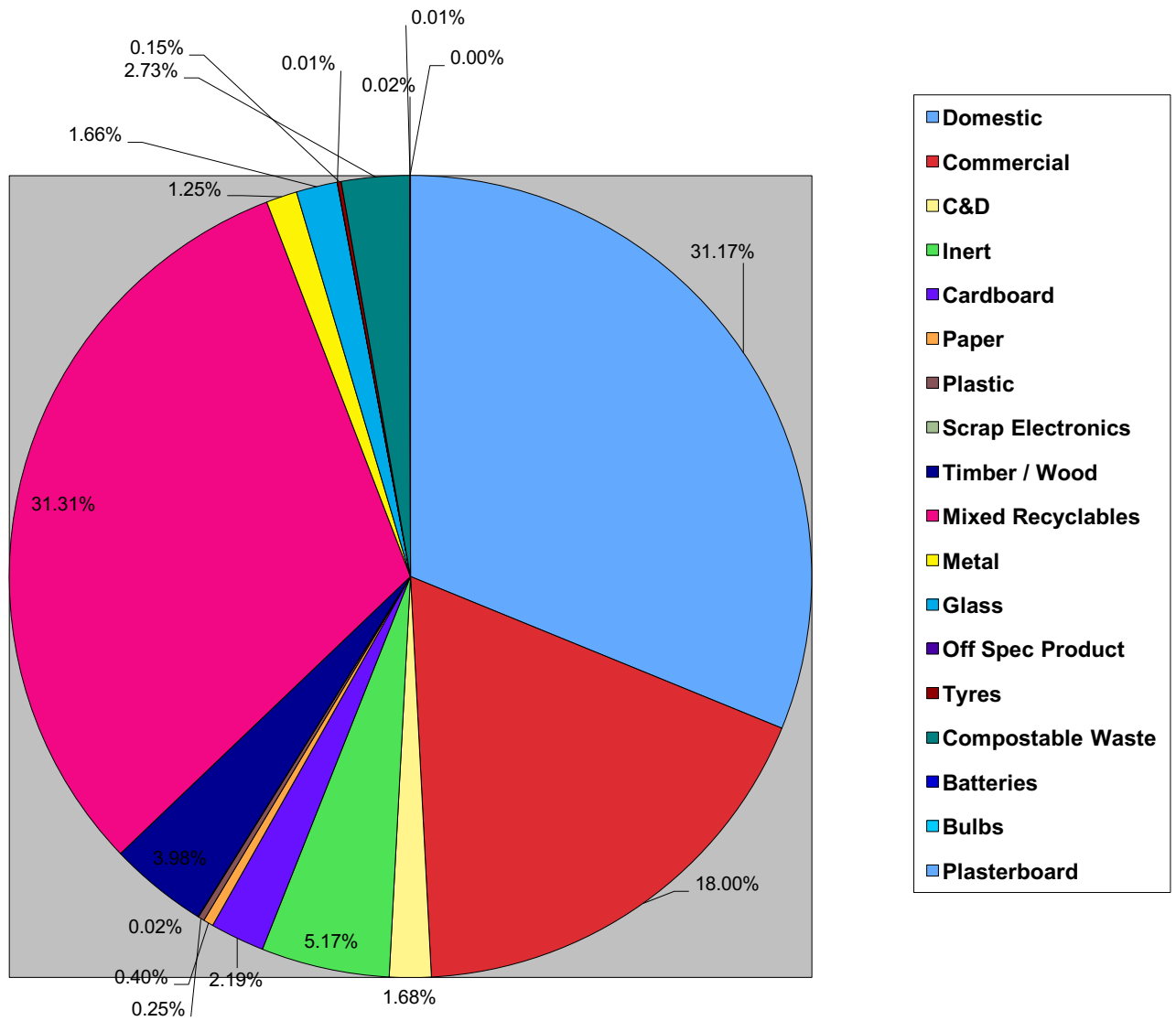
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2008:

| WASTE TYPE<br>(Recyclable materials only)           | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING                            |
|---|---------------------------------|--|
| <i>EWC 200202 Inert</i>                             | 4846.37                         | 12%  |
| <i>EWC 200101 Cardboard</i>                         | 7107.66                         | 18%  |
| <i>EWC 200101 Paper</i>                             | 12008.22                        | 30%  |
| <i>EWC 200103 Plastic</i>                           | 3272.20                         | 8%   |
| <i>EWC 200138 Timber / Wood / Green</i>             | 7743.46                         | 20%  |
| <i>EWC 160201 Scrap Electronics</i>                 | 150.60                          | Less than 1%                                       |
| <i>EWC 160103 Tyres</i>                             | 114.99                          | Less than 1%                                       |
| <i>EWC 170407 Metal</i>                             | 1816.43                         | 5%   |
| <i>EWC 200102 Glass</i>                             | 1411.75                         | 4%   |
| <i>EWC 160601 Batteries</i>                         | 10.82                           | Less than 1%                                       |
| <i>EWC 200110 Clothes</i>                           | 35.26                           | Less than 1%                                       |
| <i>EWC 170802 Gypsum / Plasterboard</i>             | 264.70                          | Less than 1%                                       |
| <i>EWC200108 or EWC 200304 Compostable Material</i> | 699.78                          | 2%   |
| <b>TOTAL</b>  | <b>39,482.24</b>                | <b>46% of total waste in was recycled for 2008</b> |

**Table 2.8.4: Breakdown of recycling waste out details for 1<sup>st</sup> January 2008 – 31<sup>st</sup> December 2008**

**Waste In / Out Reports for 2009**

**WASTE IN (2009)**



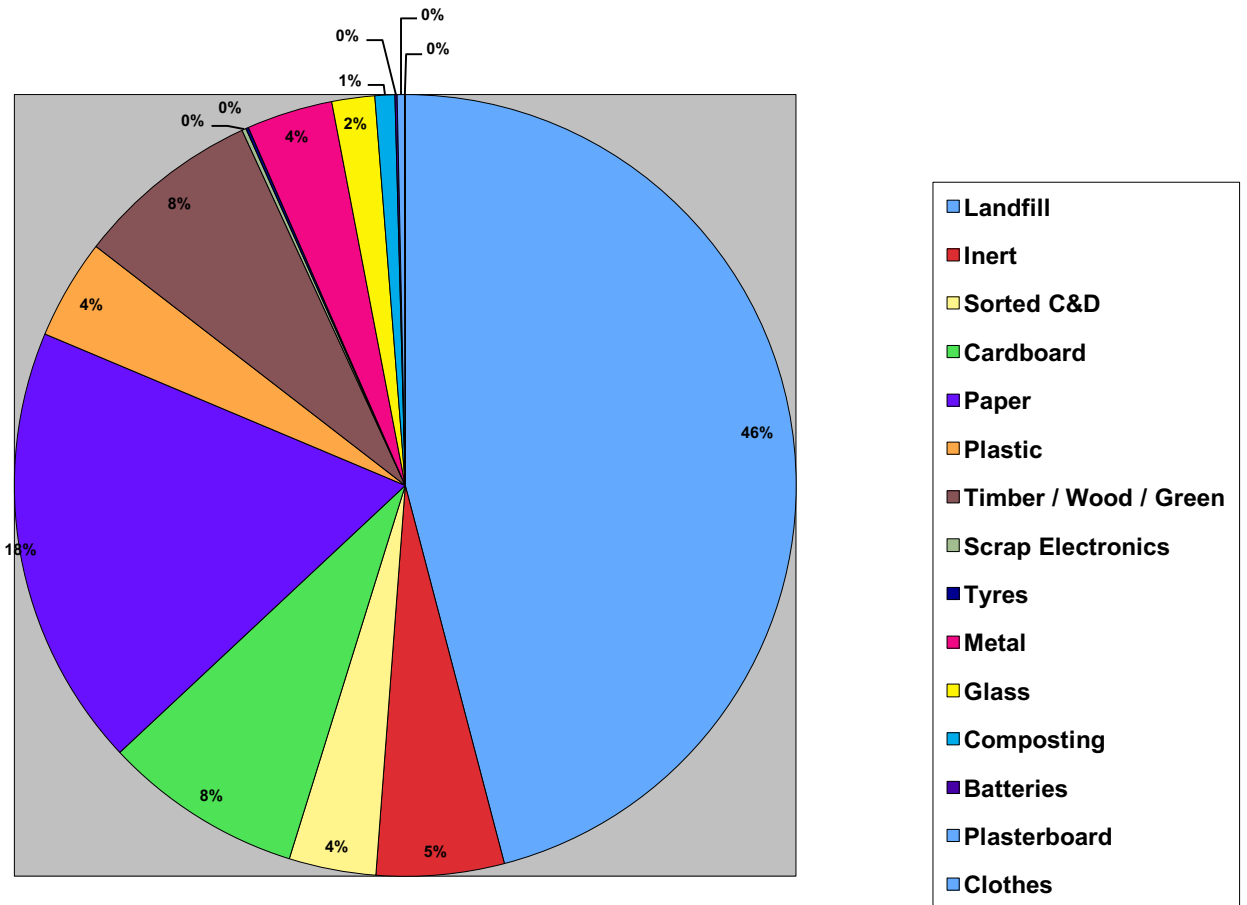
**Figure 2.9.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2009 – 31<sup>st</sup> December 2009**

Waste in for 2009: Table of quantities by waste type

| <b>WASTE TYPE</b>   | <b>WASTE IN (tonnes per annum)</b> |
|---|------------------------------------|
| <i>EWC 200301 Domestic</i>  | 22356.82                           |
| <i>EWC 200100 Commercial</i>  | 12905.46                           |
| <i>EWC 170100 C &amp; D</i>   | 1202.76                            |
| <i>EWC 200202 Inert</i>   | 3708.53                            |
| <i>EWC 200101 Cardboard</i>   | 1570.58                            |
| <i>EWC 200101 Paper</i>   | 289.72                             |
| <i>EWC 200103 Plastic</i>   | 180.09                             |
| <i>EWC 160201 Scrap Electronics</i>   | 14.88                              |
| <i>EWC 200138 Timber / Wood / Green</i>   | 2852.59                            |
| <i>EWC 150101 Mixed Kerbside Recyclables</i>  | 22451.12                           |
| <i>EWC 170407 Metal</i>   | 893.56                             |
| <i>EWC 170202 Glass</i>   | 1189.34                            |
| <i>EWC 160304 Off Spec Product</i>  | 6.70                               |
| <i>EWC 200108 Food Waste</i><br><i>EWC 200201 Garden &amp; Park Waste</i><br><i>EWC 200304 Sludge</i><br><i>Compostable materials</i> | 1960.91                            |
| <i>EWC 170802 Plasterboard / Gypsum</i>   | 16.14                              |
| <i>EWC 160601 Batteries</i>   | 5.52                               |
| <i>EWC 200121 Fluorescent Tubes</i>   | 0.1                                |
| <i>EWC 160103 Tyres</i>   | 110.12                             |
| <b>TOTAL</b>  | <b>71,714.94 TONNES</b>            |

**Table 2.9.1: Total Wastes Incoming 1<sup>st</sup> January 2009 – 31<sup>st</sup> December 2009**

## Waste Out 2009



**Figure 2.9.2: Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2009 – 31<sup>st</sup> December 2009**



Waste out for 2009: Table of quantities by waste type

| WASTE TYPE  | WASTE OUT (tonnes per annum) |
|---|------------------------------|
| <i>EWC 191212 Mechanically treated mixed waste for landfill (Commercial / Domestic)</i> | 32188.23                     |
| <i>EWC 200202 Inert</i>   | 6232.78                      |
| <i>EWC 200101 Cardboard</i>   | 5783.24                      |
| <i>EWC 200101 Paper</i>   | 12849.64                     |
| <i>EWC 200103 Plastic</i>   | 2906.97                      |
| <i>EWC 200138 Timber / Wood / Green</i>   | 5385.64                      |
| <i>EWC 160201 Scrap Electronics</i>   | 121.48                       |
| <i>EWC 160103 Tyres</i>   | 78.14                        |
| <i>EWC 170407 Metal</i>   | 2503.62                      |
| <i>EWC 200102 Glass</i>   | 1245.48                      |
| <i>EWC 160601 Batteries</i>   | 62.82                        |
| <i>EWC 200110 Clothes</i>   | 20.84                        |
| <i>EWC 170802 Gypsum / Plasterboard</i>   | 213.04                       |
| <i>EWC200108 or EWC 200304 Compostable Material</i>                                     | 575.88                       |
| <b>TOTAL</b>  | <b>70167.80 tonnes</b>       |

**Table 2.9.3: Total Wastes Outgoing 1<sup>st</sup> January 2009 – 31<sup>st</sup> December 2009**

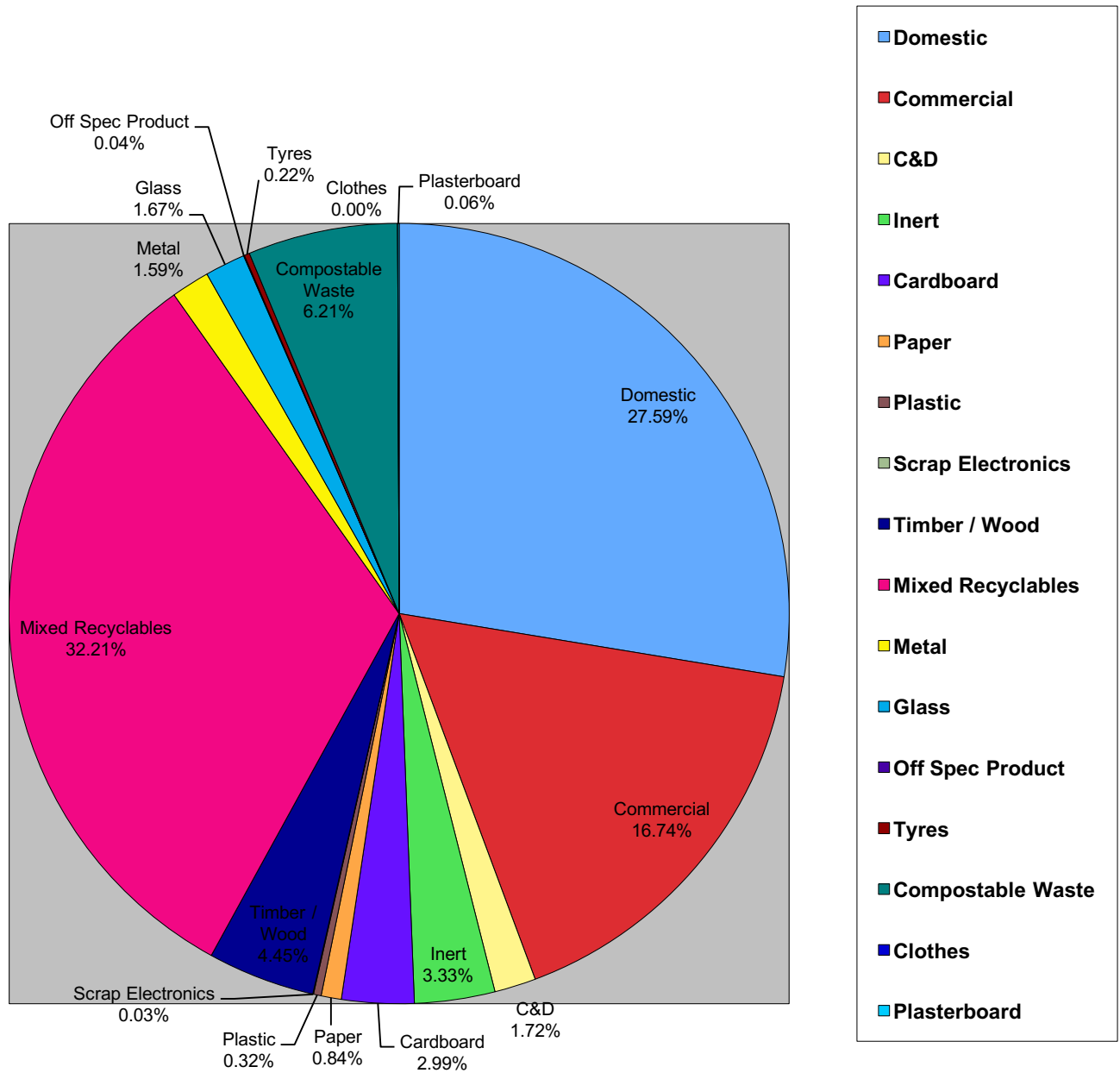
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2009:

| WASTE TYPE<br>(Recyclable materials only)           | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING                            |
|---|---------------------------------|--|
| <i>EWC 200202 Inert</i>                             | 6232.78                         | 16%  |
| <i>EWC 200101 Cardboard</i>                         | 5783.24                         | 15%  |
| <i>EWC 200101 Paper</i>                             | 12849.64                        | 34%  |
| <i>EWC 200103 Plastic</i>                           | 2906.97                         | 8%   |
| <i>EWC 200138 Timber / Wood / Green</i>             | 5385.64                         | 14%  |
| <i>EWC 160201 Scrap Electronics</i>                 | 121.48                          | Less than 1%                                       |
| <i>EWC 160103 Tyres</i>                             | 78.14                           | Less than 1%                                       |
| <i>EWC 170407 Metal</i>                             | 2496.44                         | 7%   |
| <i>EWC 200102 Glass</i>                             | 1245.48                         | 3%   |
| <i>EWC 160601 Batteries</i>                         | 62.82                           | Less than 1%                                       |
| <i>EWC 200110 Clothes</i>                           | 20.84                           | Less than 1%                                       |
| <i>EWC 170802 Gypsum / Plasterboard</i>             | 213.04                          | Less than 1%                                       |
| <i>EWC200108 or EWC 200304 Compostable Material</i> | 575.88                          | 2%   |
| <b>TOTAL</b>  | <b>37,972.39</b>                | <b>53% of total waste in was recycled for 2009</b> |

**Table 2.9.4: Breakdown of recycling waste out details for 1<sup>st</sup> January 2009 – 31<sup>st</sup> December 2009**

**Waste In / Out Reports for 2010**

**WASTE IN (2010)**



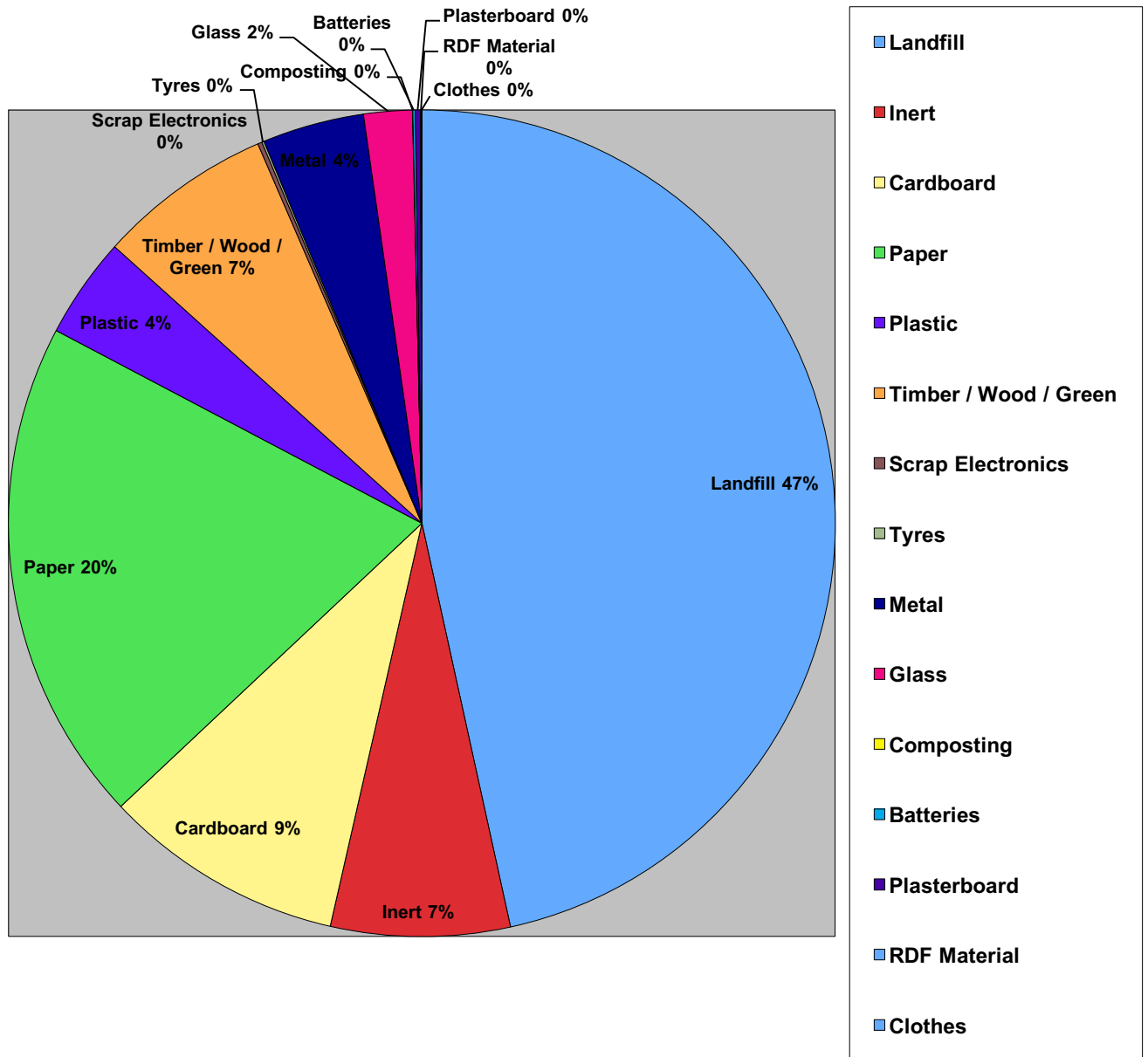
**Figure 2.10.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2010 – 31<sup>st</sup> December 2010**

Waste in for 2010: Table of quantities by waste type

| <b>WASTE TYPE</b>                            | <b>WASTE IN (tonnes per annum)</b> |
|--|------------------------------------|
| <b>EWC 200301 Domestic</b>                   | 19,140.78                          |
| <b>EWC 200301 Commercial</b>                 | 11,609.68                          |
| <b>EWC 170904 Mixed C &amp; D</b>            | 1,191.54                           |
| <b>EWC 170107 Inert</b>                      | 2,310.09                           |
| <b>EWC 150101 Cardboard</b>                  | 2,076.90                           |
| <b>EWC 200101 Paper</b>                      | 580.54                             |
| <b>EWC 200103 Plastic</b>                    | 220.34                             |
| <b>EWC 160201 Scrap Electronics</b>          | 19.98                              |
| <b>EWC 200138 Timber / Wood / Green</b>      | 3083.83                            |
| <b>EWC 200199 Mixed Kerbside Recyclables</b> | 22342.70                           |
| <b>EWC 170407 Metal</b>                      | 1101.82                            |
| <b>EWC 200102 Glass</b>                      | 1160.39                            |
| <b>EWC 160304 Off Spec Product</b>           | 24.66                              |
| <b>EWC 200108 Food Waste</b>                 | 4,309.15                           |
| <b>EWC 200201 Garden &amp; Park Waste</b>    |                                    |
| <b>EWC 200304 Sludge</b>                     |                                    |
| <b>Compostable materials</b>                 |                                    |
| <b>EWC 170802 Plasterboard / Gypsum</b>      | 42.42                              |
| <b>EWC 160103 Tyres</b>                      | 152.54                             |
| <b>EWC 200110 Clothes</b>                    | 0.28                               |
| <b>TOTAL</b>                                 | <b>69,367.64 TONNES</b>            |

**Table 2.10.1: Total Wastes Incoming 1<sup>st</sup> January 2010 – 31<sup>st</sup> December 2010**

## Waste Out 2010



**Figure 2.10.2: Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2010 – 31<sup>st</sup> December 2010**

Waste out for 2010: Table of quantities by waste type:-

| WASTE TYPE   | WASTE OUT<br>(tonnes per annum) |
|--|---------------------------------|
| EWC 191212 Mechanically treated mixed waste for landfill | 28,115.82                       |
| EWC 200202 Inert   | 4,227.79                        |
| EWC 191201 Cardboard                                     | 5,692.87                        |
| EWC 191201 Paper   | 11,916.14                       |
| EWC 191204 Plastic                                       | 2,382.34                        |
| EWC 191207 Timber / Wood / Green                         | 4,131.03                        |
| EWC 160201 Scrap Electronics                             | 100.92                          |
| EWC 160103 Tyres   | 51.78                           |
| EWC 191203 Metal   | 2402.76                         |
| EWC 191205 Glass   | 1145.88                         |
| EWC 160601 Batteries                                     | 56.36                           |
| EWC 191208 Clothes                                       | 8.18                            |
| EWC 170802 Gypsum / Plasterboard                         | 122.44                          |
| EWC 200108 or EWC 200304 Compostable Material            | 7.50                            |
| EWC 191210 Refuse Derived Fuel                           | 25.34                           |
| <b>TOTAL</b>   | <b>60,387.15 TONNES</b>         |

Table 2.10.3: Total Wastes Outgoing 1<sup>st</sup> January 2010 – 31<sup>st</sup> December 2010

#### RECYCLING SUMMARY FOR 2010

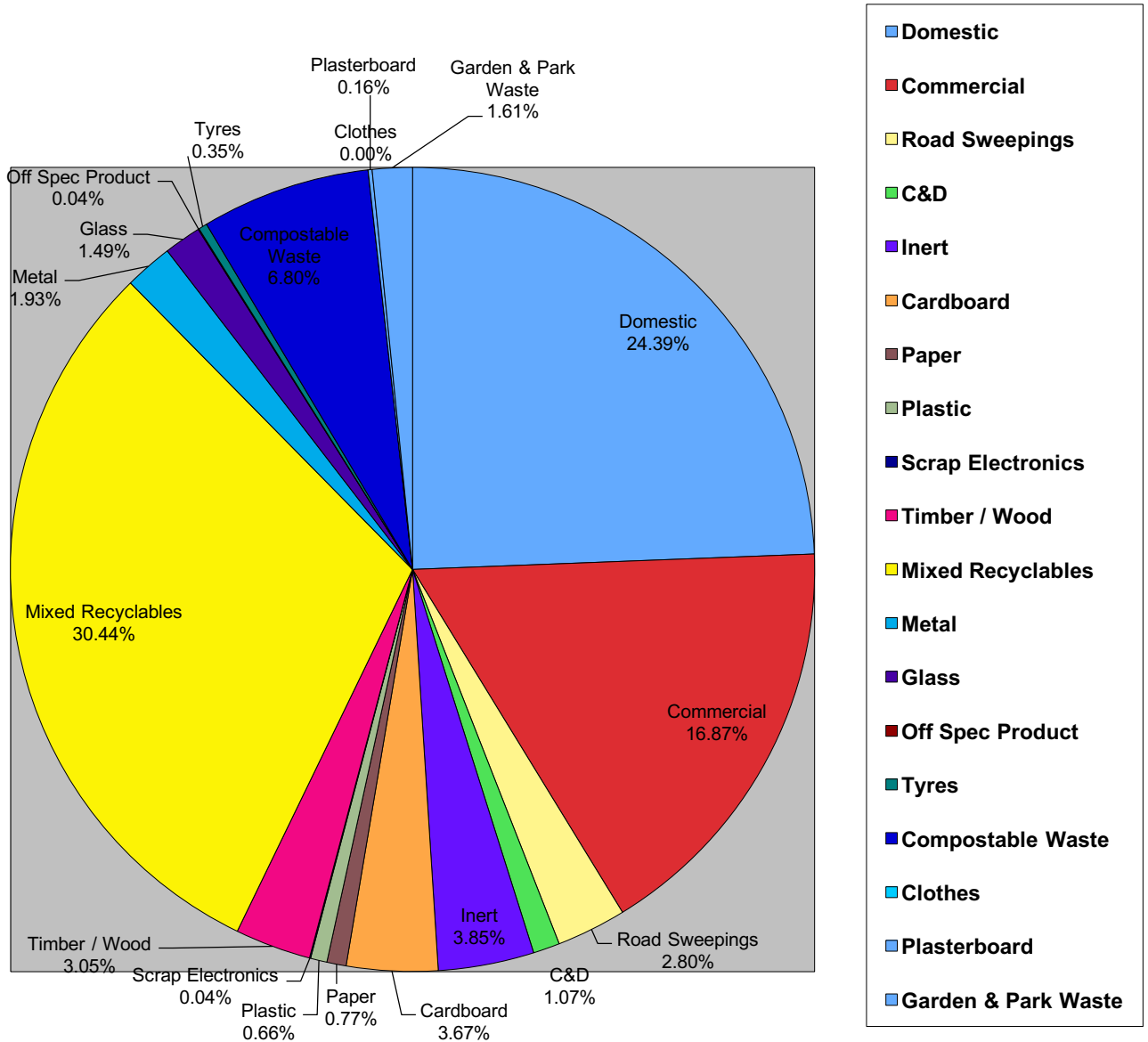
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2010. This table only shows the RECYCLABLE / RECOVERABLE material types and lists the total tonnage recycled during 2010 and the % split that each waste type provides towards the total recycling figure:-

| WASTE TYPE<br>(Recyclable materials only)        | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING                                |
|--|---------------------------------|--|
| EWC 200202 Inert                                 | 4,227.79                        | 13%  |
| EWC 191201 Cardboard                             | 5,692.87                        | 18%  |
| EWC 191201 Paper                                 | 11,592.04                       | 36%  |
| EWC 191204 Plastic                               | 2,706.44                        | 8%   |
| EWC 191207 Timber / Wood / Green                 | 4,131.03                        | 13%  |
| EWC 160201 Scrap Electronics                     | 100.92                          | Less than 1%   |
| EWC 160103 Tyres                                 | 51.78                           | Less than 1%   |
| EWC 191203 Metal                                 | 2,402.76                        | 7%   |
| EWC 191205 Glass                                 | 1,145.88                        | 4%   |
| EWC 160601 Batteries                             | 56.36                           | Less than 1%   |
| EWC 191208 Clothes                               | 8.18                            | Less than 1%   |
| EWC 170802 Gypsum / Plasterboard                 | 122.44                          | Less than 1%   |
| EWC 200108 or EWC 200304<br>Compostable Material | 7.50                            | Less than 1%   |
| EWC 191210 Refuse Derived Fuel                   | 25.34                           | Less than 1%   |
| <b>TOTAL</b>                                     | <b>32,271.33</b>                | <b>47% of total waste in<br/>was recycled for 2010</b> |

Table 2.10.4: Breakdown of recycling waste out for 1<sup>st</sup> January 2010 – 31<sup>st</sup> December 2010

**Waste In / Out Reports for 2011**

**WASTE IN (2011)**



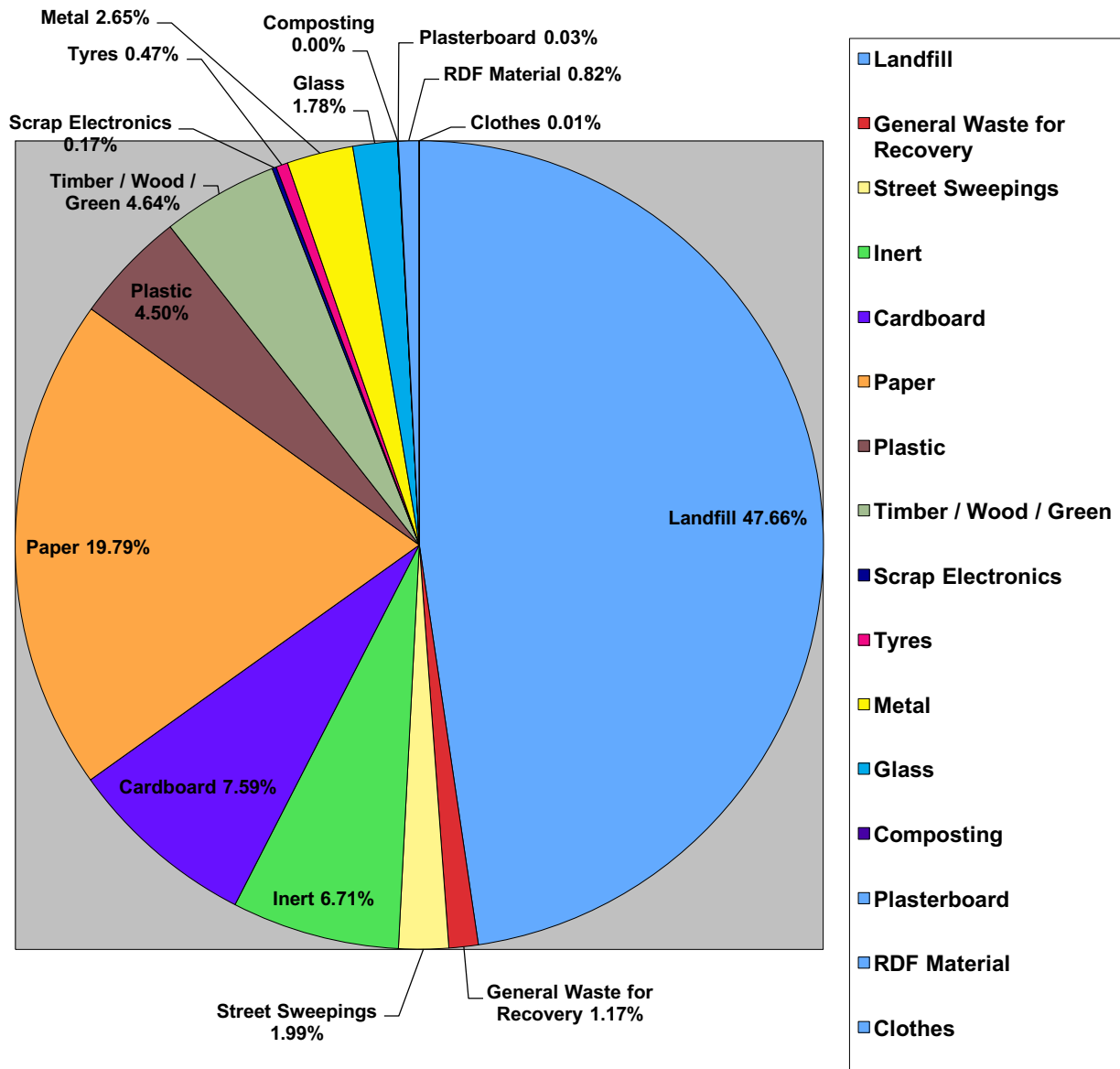
**Figure 2.11.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2011 – 31<sup>st</sup> December 2011**

Waste in for 2011: Table of quantities by waste type

| <b>WASTE TYPE</b>  | <b>WASTE IN (tonnes per annum)</b> |
|--|------------------------------------|
| <b>EWC 200301 Domestic</b>                               | 18335.45                           |
| <b>EWC 200301 Commercial</b>                             | 12681.69                           |
| <b>EWC 200303 Street / Road Sweepings</b>                | 2108.55                            |
| <b>EWC 170904 Mixed C &amp; D</b>                        | 804.43                             |
| <b>EWC 170107 Inert</b>                                  | 2894.68                            |
| <b>EWC 200201 Garden &amp; Park Waste</b>                | 1207.05                            |
| <b>EWC 150101 Cardboard</b>                              | 2755.96                            |
| <b>EWC 200101 Paper</b>                                  | 582.18                             |
| <b>EWC 200103 Plastic</b>                                | 498.60                             |
| <b>EWC 160201 Scrap Electronics / WEEE</b>               | 33.54                              |
| <b>EWC 200138 Timber / Wood / Green</b>                  | 2295.07                            |
| <b>EWC 200199 Mixed Kerbside Recyclables</b>             | 22887.50                           |
| <b>EWC 170407 Metal</b>                                  | 1454.38                            |
| <b>EWC 200102 Glass</b>                                  | 1121.93                            |
| <b>EWC 160304 Off Spec Product</b>                       | 30.12                              |
| <b>EWC 200108 Food Waste</b>                             | 5109.98                            |
| <b>EWC 200304 Sludge</b><br><b>Compostable materials</b> |                                    |
| <b>EWC 170802 Plasterboard / Gypsum</b>                  | 121.58                             |
| <b>EWC 160103 Tyres</b>                                  | 260.45                             |
| <b>EWC 200110 Clothes</b>                                | 0.10                               |
| <b>TOTAL</b>   | <b>75,183.24 TONNES</b>            |

**Table 2.11.1: Total Wastes Incoming 1<sup>st</sup> January 2011 – 31<sup>st</sup> December 2011**

## Waste Out 2011



**Figure 2.11.2:**  
**Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2011 – 31<sup>st</sup> December 2011**

Waste out for 2011: Table of quantities by waste type:-



| <b>WASTE TYPE</b>  | <b>WASTE OUT<br/>(tonnes per annum)</b> |
|--|---|
| <b>EWC 191212 Mechanically treated mixed waste for landfill</b>                                  | 32,094.62                               |
| <b>EWC 191212 Mechanically treated mixed waste for recovery (send to Indaver Meath Facility)</b> | 788.14                                  |
| <b>EWC 200303 Road / Street Sweepings</b>  | 1340.58                                 |
| <b>EWC 200202 Inert</b>  | 4520.28                                 |
| <b>EWC 191201 Cardboard</b>  | 5111.17                                 |
| <b>EWC 191201 Paper</b>  | 13328.88                                |
| <b>EWC 191204 Plastic</b>  | 3031.88                                 |
| <b>EWC 191207 Timber / Wood / Green</b>  | 3125.35                                 |
| <b>EWC 160201 Scrap Electronics</b>  | 114.46                                  |
| <b>EWC 160103 Tyres</b>  | 318.36                                  |
| <b>EWC 191203 Metal</b>  | 1784.65                                 |
| <b>EWC 191205 Glass</b>  | 1199.26                                 |
| <b>EWC 191208 Clothes</b>  | 5.92                                    |
| <b>EWC 170802 Gypsum / Plasterboard</b>  | 19.50                                   |
| <b>EWC 200108 or EWC 200304 Compostable Material</b>   | 0.58                                    |
| <b>EWC 191210 Refuse Derived Fuel</b>  | 551.32                                  |
| <b>EWC 200199 Mixed Recycling</b>  | 108.06                                  |
| <b>TOTAL</b>   | <b>67,443.01 TONNES</b>                 |

**Table 2.11.3: Total Wastes Outgoing 1<sup>st</sup> January 2011 – 31<sup>st</sup> December 2011**

## RECYCLING SUMMARY FOR 2011

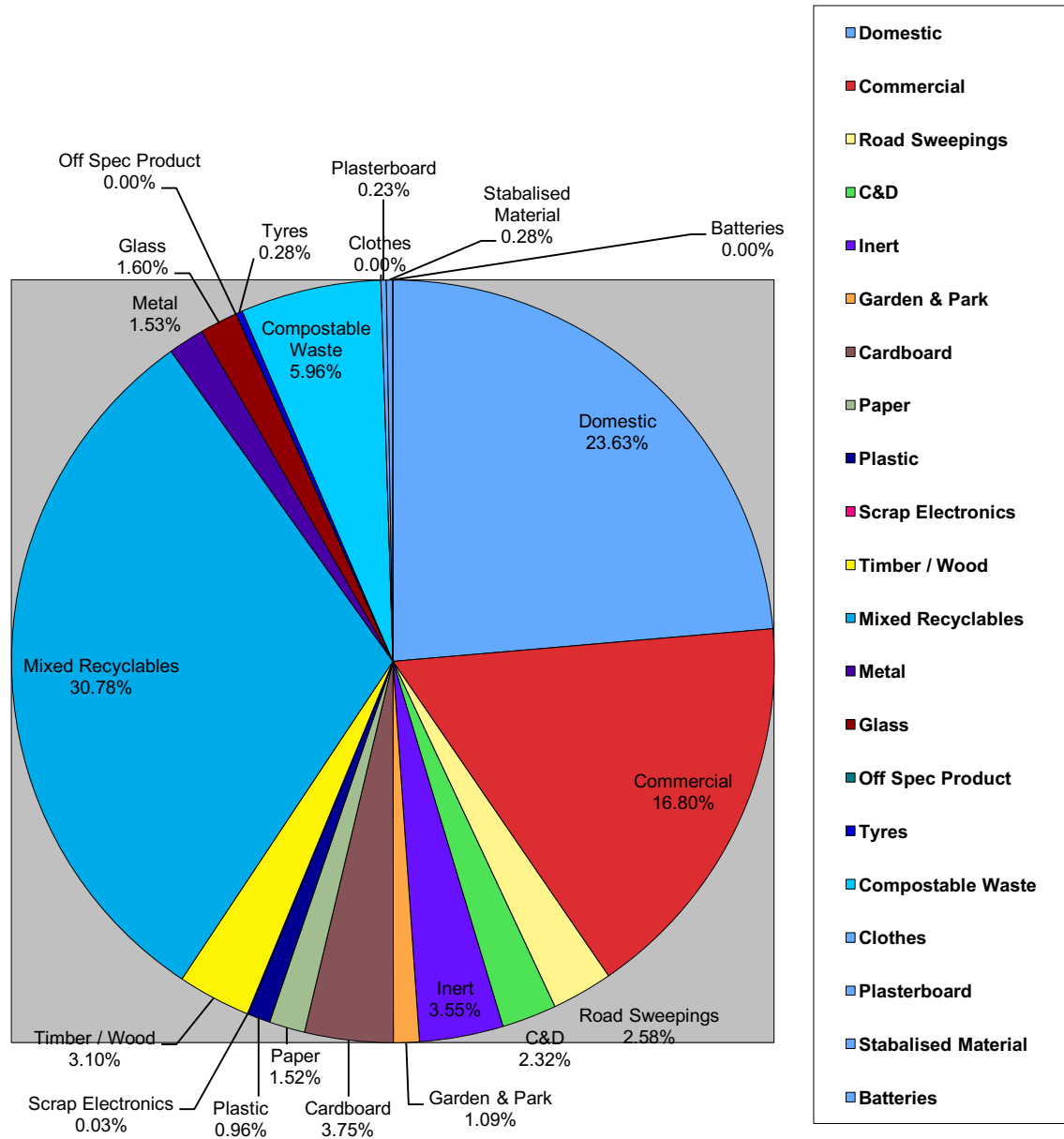
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2011. This table only shows the RECYCLABLE / RECOVERABLE material types and lists the total tonnage recycled during 2011 and the % split that each waste type provides towards the total recycling figure:-

| <b>WASTE TYPE<br/>(Recyclable materials only)</b>  | <b>RECYCLING<br/>(tonnes per annum)</b> | <b>% OF TOTAL<br/>RECYCLING</b>                        |
|--|---|--|
| <b>EWC 200202 Inert</b>  | 4520.28                                 | 13%  |
| <b>EWC 191201 Cardboard</b>  | 5111.17                                 | 15%  |
| <b>EWC 191201 Paper</b>  | 13328.88                                | 39%  |
| <b>EWC 191204 Plastic</b>  | 3031.88                                 | 9%   |
| <b>EWC 191207 Timber / Wood / Green</b>  | 3125.35                                 | 9%   |
| <b>EWC 160201 Scrap Electronics</b>  | 114.46                                  | Less than 1%   |
| <b>EWC 160103 Tyres</b>  | 318.36                                  | 1%   |
| <b>EWC 191203 Metal</b>  | 1784.65                                 | 5%   |
| <b>EWC 191205 Glass</b>  | 1199.26                                 | 4%   |
| <b>EWC 191208 Clothes</b>  | 5.92                                    | Less than 1%   |
| <b>EWC 170802 Gypsum / Plasterboard</b>  | 19.50                                   | Less than 1%   |
| <b>EWC 200108 or EWC 200304<br/>Compostable Material</b>   | 0.58                                    | Less than 1%   |
| <b>EWC 191210 Refuse Derived Fuel</b>  | 551.32                                  | 2%   |
| <b>EWC 191212 Mechanically treated<br/>mixed waste for recovery (send to<br/>Indaver Meath Facility)</b> | 788.14                                  | 2%   |
| <b>EWC 200199 Mixed Recycling</b>  | 108.06                                  | Less than 1%   |
| <b>TOTAL</b>   | <b>34007.81</b>                         | <b>45% of total waste in<br/>was recycled for 2011</b> |

**Table 2.11.4: Breakdown of recycling waste out for 1<sup>st</sup> January 2011 – 31<sup>st</sup> December 2011**

**Waste In / Out Reports for 2012**

**WASTE IN (2012)**



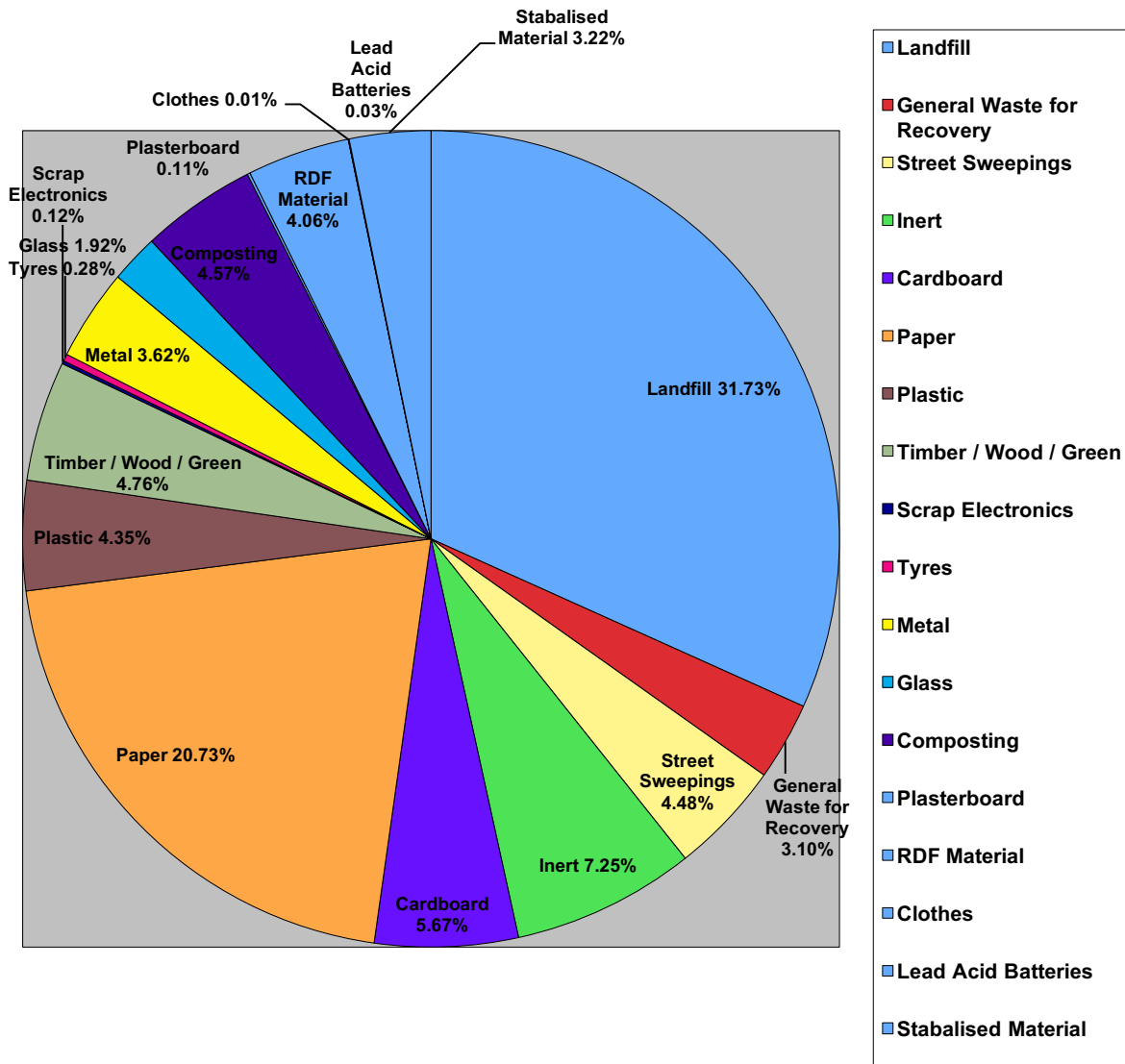
**Figure 2.12.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2012 – 31<sup>st</sup> December 2012**

Waste in for 2012: Table of quantities by waste type

| <b>WASTE TYPE</b>                            | <b>WASTE IN (tonnes per annum)</b> |
|--|------------------------------------|
| <b>EWC 200301 Domestic</b>                   | <b>16973.75</b>                    |
| <b>EWC 200301 Commercial</b>                 | <b>12065.34</b>                    |
| <b>EWC 200303 Street / Road Sweepings</b>    | <b>1855.76</b>                     |
| <b>EWC 170904 Mixed C &amp; D</b>            | <b>1667.91</b>                     |
| <b>EWC 170107 Inert</b>                      | <b>2550.56</b>                     |
| <b>EWC 200201 Garden &amp; Park Waste</b>    | <b>782.98</b>                      |
| <b>EWC 150101 Cardboard</b>                  | <b>2689.79</b>                     |
| <b>EWC 200101 Paper</b>                      | <b>1088.49</b>                     |
| <b>EWC 200103 Plastic</b>                    | <b>689.21</b>                      |
| <b>EWC 160201 Scrap Electronics / WEEE</b>   | <b>22.90</b>                       |
| <b>EWC 200138 Timber / Wood</b>              | <b>2224.68</b>                     |
| <b>EWC 200199 Mixed Kerbside Recyclables</b> | <b>22106.40</b>                    |
| <b>EWC 170407 Metal</b>                      | <b>1100.56</b>                     |
| <b>EWC 200102 Glass</b>                      | <b>1151.56</b>                     |
| <b>EWC 160304 Off Spec Product</b>           | <b>1.46</b>                        |
| <b>EWC 200108 Food Waste</b>                 | <b>3943.42</b>                     |
| <b>EWC 200304 Sludge</b>                     | <b>339.36</b>                      |
| <b>Compostable materials</b>                 |                                    |
| <b>EWC 170802 Plasterboard / Gypsum</b>      | <b>161.68</b>                      |
| <b>EWC 160103 Tyres</b>                      | <b>202.67</b>                      |
| <b>EWC 200110 Clothes</b>                    | <b>0.08</b>                        |
| <b>EWC 190305 Stabilised Material</b>        | <b>198.06</b>                      |
| <b>EWC 160604 Alkaline Batteries</b>         | <b>1.56</b>                        |
| <b>TOTAL</b>                                 | <b>71818.18 TONNES</b>             |

**Table 2.12.1: Total Wastes Incoming 1<sup>st</sup> January 2012 – 31<sup>st</sup> December 2012**

## Waste Out 2012



**Figure 2.12.2:**  
**Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2012 – 31<sup>st</sup> December 2012**

Waste out for 2012: Table of quantities by waste type:-

| <b>WASTE TYPE</b>  | <b>WASTE OUT<br/>(tonnes per annum)</b> |
|--|---|
| <b>EWC 191212 Mechanically treated mixed waste for landfill</b>                                      | <b>21779.16</b>                         |
| <b>EWC 191212 Mechanically treated mixed waste for recovery<br/>(sent to Indaver Meath Facility)</b> | <b>2126.82</b>                          |
| <b>EWC 200303 Road / Street Sweepings / Stabilised Material</b>                                      | <b>3075.32</b>                          |
| <b>EWC 200202 Inert</b>  | <b>4979.22</b>                          |
| <b>EWC 191201 Cardboard</b>  | <b>3891.44</b>                          |
| <b>EWC 191201 Paper</b>  | <b>14231.94</b>                         |
| <b>EWC 191204 Plastic</b>  | <b>2982.70</b>                          |
| <b>EWC 191207 Timber / Wood / Green</b>  | <b>3267.66</b>                          |
| <b>EWC 160201 Scrap Electronics</b>  | <b>83.50</b>                            |
| <b>EWC 160103 Tyres</b>  | <b>190.78</b>                           |
| <b>EWC 191203 Metal</b>  | <b>2487.72</b>                          |
| <b>EWC 191205 Glass</b>  | <b>1316.74</b>                          |
| <b>EWC 191208 Clothes</b>  | <b>5.24</b>                             |
| <b>EWC 170802 Gypsum / Plasterboard</b>  | <b>76.3</b>                             |
| <b>EWC 200108 or EWC 200304 Compostable Material</b>   | <b>3138.16</b>                          |
| <b>EWC 191210 Refuse Derived Fuel</b>  | <b>2787.04</b>                          |
| <b>EWC 160601* Lead Acid Batteries</b>   | <b>18.74</b>                            |
| <b>EWC Stabilised Material</b>   | <b>2207.52</b>                          |
| <b>TOTAL</b>   | <b>68,646.00 TONNES</b>                 |

**Table 2.12.3: Total Wastes Outgoing 1<sup>st</sup> January 2012 – 31<sup>st</sup> December 2012**

## RECYCLING SUMMARY FOR 2012

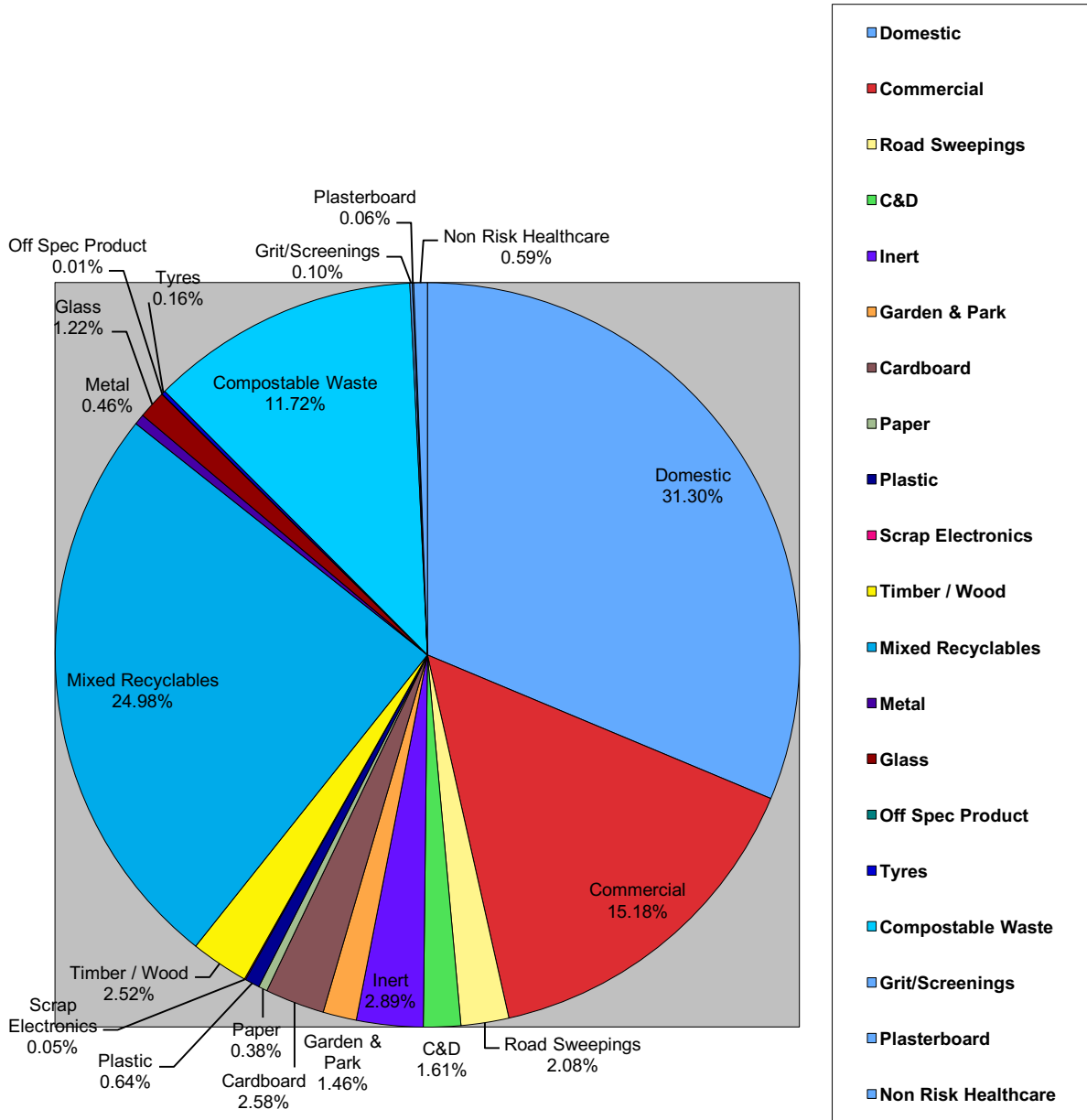
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2012. This table only shows the RECYCLABLE / RECOVERABLE material types and lists the total tonnage recycled during 2012 and the % split that each waste type provides towards the total recycling figure:-

| WASTE TYPE<br>(Recyclable materials only)   | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING  |
|---|---------------------------------|--|
| EWC 200202 Inert  | 4979.22                         | 8%   |
| EWC 191201 Cardboard  | 3891.44                         | 9%   |
| EWC 191201 Paper  | 14231.94                        | 34%  |
| EWC 191204 Plastic  | 2982.70                         | 7%   |
| EWC 191207 Timber / Wood / Green  | 3267.66                         | 8%   |
| EWC 160201 Scrap Electronics  | 83.50                           | Less than 1%   |
| EWC 160103 Tyres  | 190.78                          | Less than 1%   |
| EWC 191203 Metal  | 2487.72                         | 6%   |
| EWC 191205 Glass  | 1316.74                         | 3%   |
| EWC 191208 Clothes  | 5.24                            | Less than 1%   |
| EWC 170802 Gypsum / Plasterboard  | 76.3                            | Less than 1%   |
| EWC 200108 or EWC 200304<br>Compostable Material  | 3138.16                         | 7%   |
| EWC 191210 Refuse Derived Fuel  | 2787.04                         | 7%   |
| EWC 191212 Mechanically treated<br>mixed waste for recovery (send to<br>Indaver Meath Facility) | 2126.82                         | 5%   |
| EWC 100601* Lead Acid Batteries   | 18.74                           | Less than 1%   |
| EWC 190305 Stabilised Material  | 2207.52                         | 5%   |
| <b>TOTAL</b>  | <b>43,791.52</b>                | <b>61% of total waste in<br/>was recycled or<br/>recycled for 2012</b> |

**Table 2.12.4: Breakdown of recycling waste out for 1<sup>st</sup> January 2012 – 31<sup>st</sup> December 2012**

**Waste In / Out Reports for 2013**

**WASTE IN (2013)**



**Figure 2.13.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2013 – 31<sup>st</sup> December 2013**

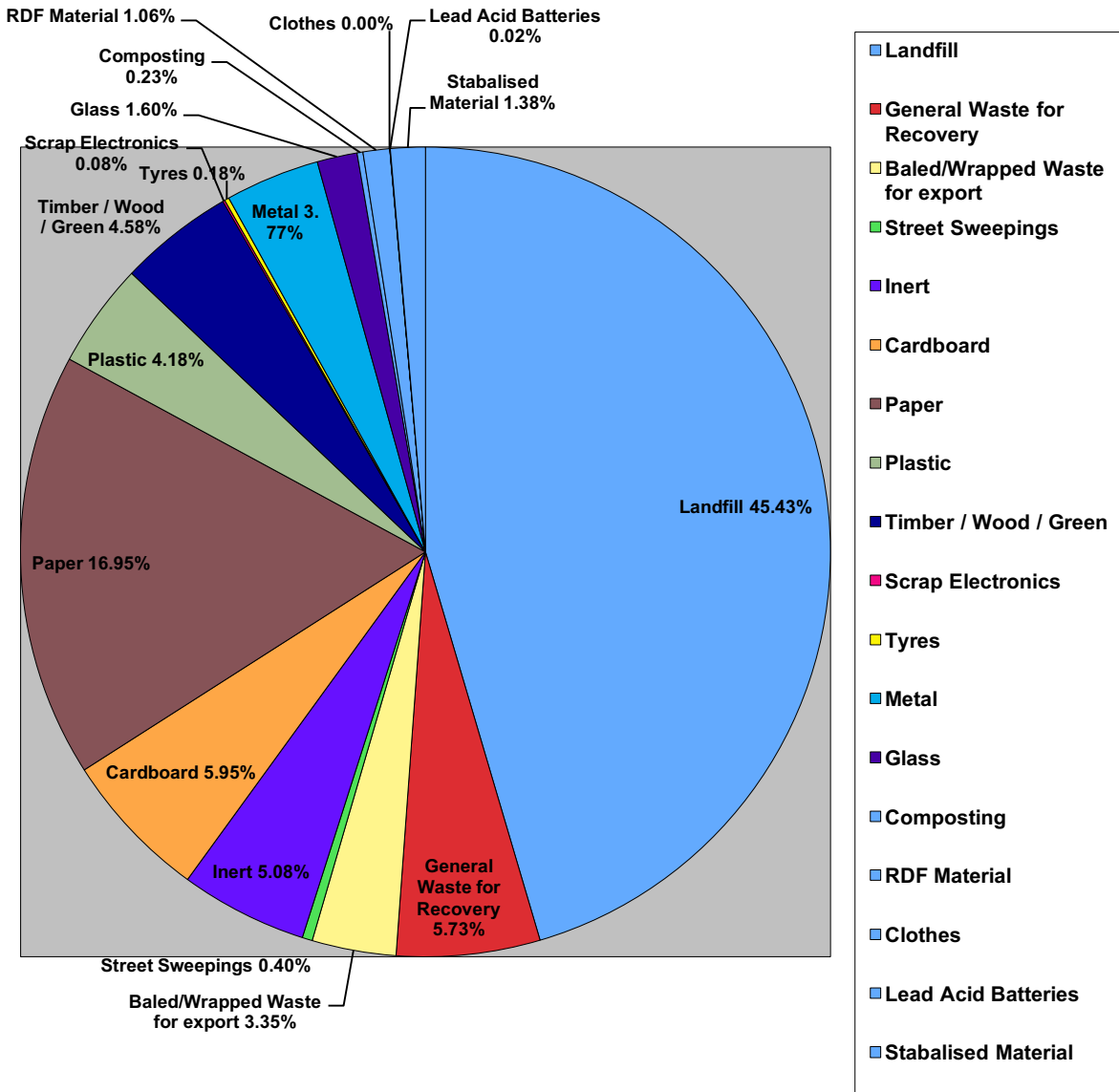


Waste in for 2013: Table of quantities by waste type

| <b>WASTE TYPE</b>                            | <b>WASTE IN (tonnes per annum)</b> |
|--|------------------------------------|
| <b>EWC 200301 Domestic</b>                   | <b>27986.41</b>                    |
| <b>EWC 200301 Commercial</b>                 | <b>13573.78</b>                    |
| <b>EWC 200303 Street / Road Sweepings</b>    | <b>1857.32</b>                     |
| <b>EWC 170904 Mixed C &amp; D</b>            | <b>1443.15</b>                     |
| <b>EWC 170107 Inert</b>                      | <b>2580.85</b>                     |
| <b>EWC 200201 Garden &amp; Park Waste</b>    | <b>1302.56</b>                     |
| <b>EWC 150101 Cardboard</b>                  | <b>2305.97</b>                     |
| <b>EWC 200101 Paper</b>                      | <b>343.16</b>                      |
| <b>EWC 200139 Plastic</b>                    | <b>576.08</b>                      |
| <b>EWC 160201 Scrap Electronics / WEEE</b>   | <b>45.66</b>                       |
| <b>EWC 200138 Timber / Wood</b>              | <b>2250.91</b>                     |
| <b>EWC 200199 Mixed Kerbside Recyclables</b> | <b>22329.26</b>                    |
| <b>EWC 170407 Metal</b>                      | <b>409.81</b>                      |
| <b>EWC 200102 Glass</b>                      | <b>1093.22</b>                     |
| <b>EWC 160304 Off Spec Product</b>           | <b>10</b>                          |
| <b>EWC 200108 Food Waste</b>                 | <b>10224.03</b>                    |
| <b>EWC 200304 Sludge</b>                     | <b>250.24</b>                      |
| <b>Compostable materials</b>                 |                                    |
| <b>EWC 170802 Plasterboard / Gypsum</b>      | <b>54.22</b>                       |
| <b>EWC 160103 Tyres</b>                      | <b>147.03</b>                      |
| <b>EWC 190801 Grit/screenings</b>            | <b>92.68</b>                       |
| <b>EWC 180104 Non risk healthcare waste</b>  | <b>526.53</b>                      |
| <b>TOTAL</b>                                 | <b>89402.87TONNES</b>              |

**Table 2.13.1: Total Wastes Incoming 1<sup>st</sup> January 2013 – 31<sup>st</sup> December 2013**

## Waste Out 2013



**Figure 2.13.2:**  
**Breakdown of Waste going off site for Recovery or Disposal from**  
**1<sup>st</sup> January 2013 – 31<sup>st</sup> December 2013**

Waste out for 2013: Table of quantities by waste type:-

| <b>WASTE TYPE</b>  | <b>WASTE OUT<br/>(tonnes per annum)</b> |
|--|---|
| <b>EWC 200301 Mechanically treated mixed waste for landfill</b>                                      | <b>34302.85</b>                         |
| <b>EWC 191212 Mechanically treated mixed waste for recovery<br/>(sent to Indaver Meath Facility)</b> | <b>4324</b>                             |
| <b>EWC 200301 Baled/Wrapped waste for export &amp; recovery</b>                                      | <b>2532.58</b>                          |
| <b>EWC 200303 Road / Street Sweepings</b>  | <b>305.6</b>                            |
| <b>EWC 200202 Inert</b>  | <b>3834.37</b>                          |
| <b>EWC 191201 Cardboard</b>  | <b>4494.68</b>                          |
| <b>EWC 191201 Paper</b>  | <b>12796.88</b>                         |
| <b>EWC 191204 Plastics</b>   | <b>3156.18</b>                          |
| <b>EWC 191207 Timber / Wood / Green</b>  | <b>3460.42</b>                          |
| <b>EWC 160201 Scrap Electronics</b>  | <b>62.92</b>                            |
| <b>EWC 160103 Tyres</b>  | <b>136.88</b>                           |
| <b>EWC 191203 Metal</b>  | <b>2844.99</b>                          |
| <b>EWC 191205 Glass</b>  | <b>1208.76</b>                          |
| <b>EWC 191208 Clothes</b>  | <b>3.18</b>                             |
| <b>EWC 200108 or EWC 200304 Compostable Material</b>   | <b>176.56</b>                           |
| <b>EWC 191210 Refuse Derived Fuel</b>  | <b>803.2</b>                            |
| <b>EWC 160601* Lead Acid Batteries</b>   | <b>13.24</b>                            |
| <b>EWC Stabilised Material (Compost)</b>   | <b>1045.22</b>                          |
| <b>TOTAL</b>   | <b>75502.51 TONNES</b>                  |

**Table 2.13.3: Total Wastes Outgoing 1<sup>st</sup> January 2013 – 31<sup>st</sup> December 2013**

### RECYCLING SUMMARY FOR 2013

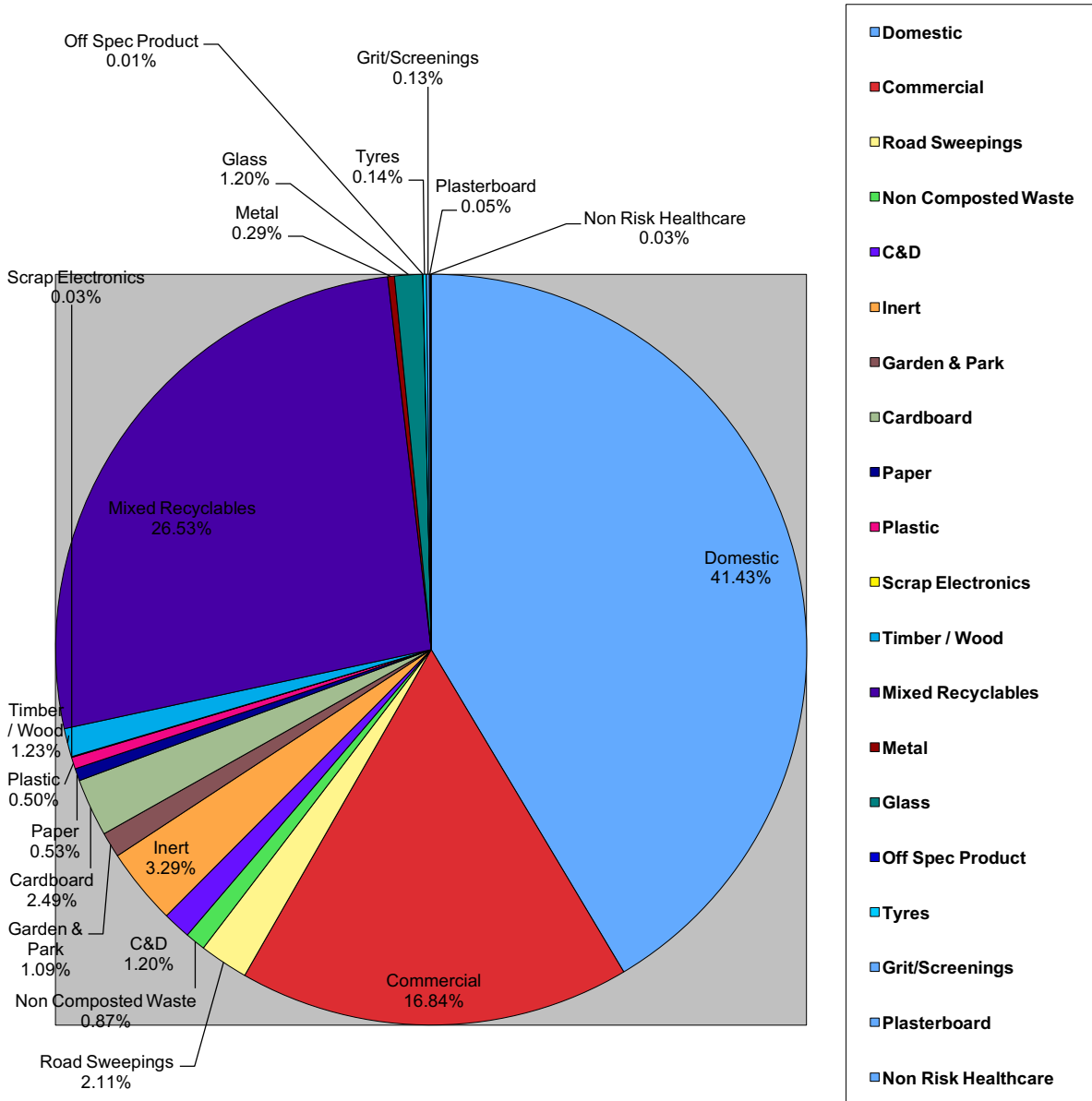
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2013. This table only shows the RECYCLABLE / RECOVERABLE material types and lists the total tonnage recycled during 2012 and the % split that each waste type provides towards the total recycling figure:-

| WASTE TYPE<br>(Recyclable materials only)  | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING  |
|--|---------------------------------|--|
| <b>EWC 200202 Inert</b>  | <b>3834.37</b>                  | 9%   |
| <b>EWC 191201 Cardboard</b>  | <b>4494.68</b>                  | 11%  |
| <b>EWC 191201 Paper</b>  | <b>12796.88</b>                 | 31%  |
| <b>EWC 191204 Plastic</b>  | <b>3156.18</b>                  | 8%   |
| <b>EWC 191207 Timber / Wood / Green</b>  | <b>3460.42</b>                  | 8%   |
| <b>EWC 160201 Scrap Electronics</b>  | <b>62.92</b>                    | Less than 1%   |
| <b>EWC 160103 Tyres</b>  | <b>136.88</b>                   | Less than 1%   |
| <b>EWC 191203 Metal</b>  | <b>2844.99</b>                  | 7%   |
| <b>EWC 191205 Glass</b>  | <b>1208.76</b>                  | 3%   |
| <b>EWC 191208 Clothes</b>  | <b>3.18</b>                     | Less than 1%   |
| <b>EWC 200301 Baled/Wrapped waste for export for recovery</b>                                    | <b>2532.58</b>                  | 6%   |
| <b>EWC 200108 or EWC 200304 Compostable Material</b>   | <b>176.56</b>                   | Less than 1%   |
| <b>EWC 191210 Refuse Derived Fuel</b>  | <b>803.2</b>                    | 2%   |
| <b>EWC 191212 Mechanically treated mixed waste for recovery (send to Indaver Meath Facility)</b> | <b>4324</b>                     | 11%  |
| <b>EWC 100601* Lead Acid Batteries</b>   | <b>13.24</b>                    | Less than 1%   |
| <b>EWC 190305 Stabilised Material</b>  | <b>1045.22</b>                  | 3%   |
| <b>TOTAL</b>   | <b>40894.06</b>                 | <b>54% of total waste in was sent for recycling or recovery for 2013</b> |

**Table 2.13.4: Breakdown of recycling waste out for 1<sup>st</sup> January 2013 – 31<sup>st</sup> December 2013**

## Waste In / Out Reports for 2014

### WASTE IN (2014)



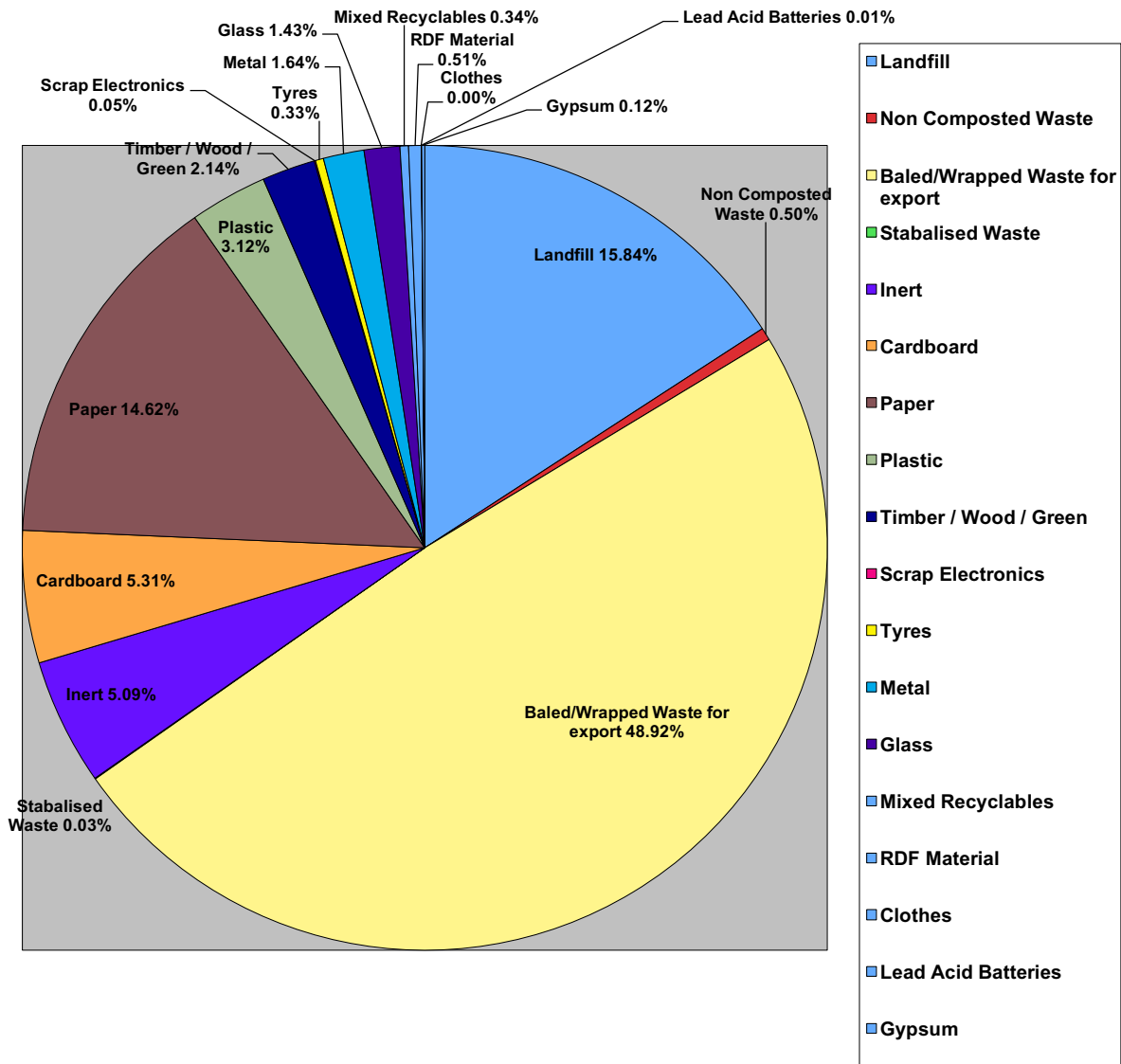
**Figure 2.14.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2014 – 31<sup>st</sup> December 2014**

Waste in for 2014: Table of quantities by waste type

| <b>WASTE TYPE</b>  | <b>WASTE IN<br/>(tonnes per annum)</b> |
|--|--|
| <b>EWC 200301 Domestic</b>                                   | <b>36866.37</b>                        |
| <b>EWC 200301 Commercial</b>                                 | <b>14988.20</b>                        |
| <b>EWC 200303 Street / Road Sweepings</b>                    | <b>1874.14</b>                         |
| <b>EWC 190501 Non Composted Fraction of Municipal Wastes</b> | <b>778.46</b>                          |
| <b>EWC 170904 Mixed C &amp; D</b>                            | <b>1068.71</b>                         |
| <b>EWC 170107 Inert</b>                                      | <b>2928.46</b>                         |
| <b>EWC 200201 Garden &amp; Park Waste</b>                    | <b>971.86</b>                          |
| <b>EWC 150101 Cardboard</b>                                  | <b>2213.77</b>                         |
| <b>EWC 200101 Paper</b>                                      | <b>473.98</b>                          |
| <b>EWC 200139 Plastic</b>                                    | <b>447.21</b>                          |
| <b>EWC 160201 Scrap Electronics / WEEE</b>                   | <b>28.40</b>                           |
| <b>EWC 200138 Timber / Wood</b>                              | <b>1090.60</b>                         |
| <b>EWC 200199 Mixed Kerbside Recyclables</b>                 | <b>23606.58</b>                        |
| <b>EWC 170407 Metal</b>                                      | <b>256.80</b>                          |
| <b>EWC 200102 Glass</b>                                      | <b>1068.46</b>                         |
| <b>EWC 160304 Off Spec Product</b>                           | <b>11.44</b>                           |
| <b>EWC 170802 Plasterboard / Gypsum</b>                      | <b>41.12</b>                           |
| <b>EWC 160103 Tyres</b>                                      | <b>128.24</b>                          |
| <b>EWC 190801 Grit/screenings</b>                            | <b>111.88</b>                          |
| <b>EWC 180104 Non risk healthcare waste</b>                  | <b>28.96</b>                           |
| <b>EWC 200108 Food Waste / Grease (not compostable)</b>      | <b>2.96</b>                            |
| <b>EWC 200303 Septic Tank Sludge</b>                         | <b>298.16</b>                          |
| <b>EWC 200134 Household Batteries</b>                        | <b>0.86</b>                            |
| <b>EWC 200110 Clothes / Textiles</b>                         | <b>0.04</b>                            |
| <b>TOTAL</b>   | <b>89,285.66 tonnes</b>                |

**Table 2.14.1: Total Wastes Incoming 1<sup>st</sup> January 2014 – 31<sup>st</sup> December 2014**

## Waste Out 2014



**Figure 2.14.2:**  
**Breakdown of Waste going off site for Recovery or Disposal from**  
**1<sup>st</sup> January 2014 – 31<sup>st</sup> December 2014**

Waste out for 2014: Table of quantities by waste type:-

| <b>WASTE TYPE</b>   | <b>WASTE OUT<br/>(tonnes per annum)</b> |
|---|---|
| <b>EWC 200301 Pre-sorted waste for landfill</b>   | <b>13,462.33</b>                        |
| <b>EWC 200301 Mechanically treated mixed waste for recovery<br/>(Baled / Wrapped MSW)</b> | <b>41,586.38</b>                        |
| <b>EWC 190501 Non Composted Municipal Waste<br/>(compost out throws)</b>                  | <b>428.94</b>                           |
| <b>EWC 190305 Stabilised Waste for Disposal</b>   | <b>25.32</b>                            |
| <b>EWC 200202 Inert</b>   | <b>4325.98</b>                          |
| <b>EWC 191201 Cardboard</b>   | <b>4515.44</b>                          |
| <b>EWC 191201 Paper</b>   | <b>12,428.92</b>                        |
| <b>EWC 191204 Plastics</b>  | <b>2648.06</b>                          |
| <b>EWC 191207 Timber / Wood / Green</b>   | <b>1821.42</b>                          |
| <b>EWC 160201 Scrap Electronics</b>   | <b>40.82</b>                            |
| <b>EWC 160103 Tyres</b>   | <b>277.28</b>                           |
| <b>EWC 191203 Metal</b>   | <b>1391.58</b>                          |
| <b>EWC 191205 Glass</b>   | <b>1217.30</b>                          |
| <b>EWC 191208 Clothes</b>   | <b>1.24</b>                             |
| <b>EWC 190801 Grit/screenings</b>   | <b>285.82</b>                           |
| <b>EWC 200303 Septic Tank Sludge</b>  |   |
| <b>EWC 170802 Gypsum / Plasterboard</b>   | <b>103.28</b>                           |
| <b>EWC 200301 Mixed Recyclables (unsorted)</b>  | <b>289.40</b>                           |
| <b>EWC 191210 Refuse Derived Fuel</b>   | <b>433.82</b>                           |
| <b>EWC 160601* Lead Acid Batteries</b>  | <b>8.14</b>                             |
| <b>TOTAL</b>  | <b>85,291.47 tonnes</b>                 |

**Table 2.14.3: Total Wastes Outgoing 1<sup>st</sup> January 2014 – 31<sup>st</sup> December 2014**



### RECYCLING / RECOVERY SUMMARY FOR 2014

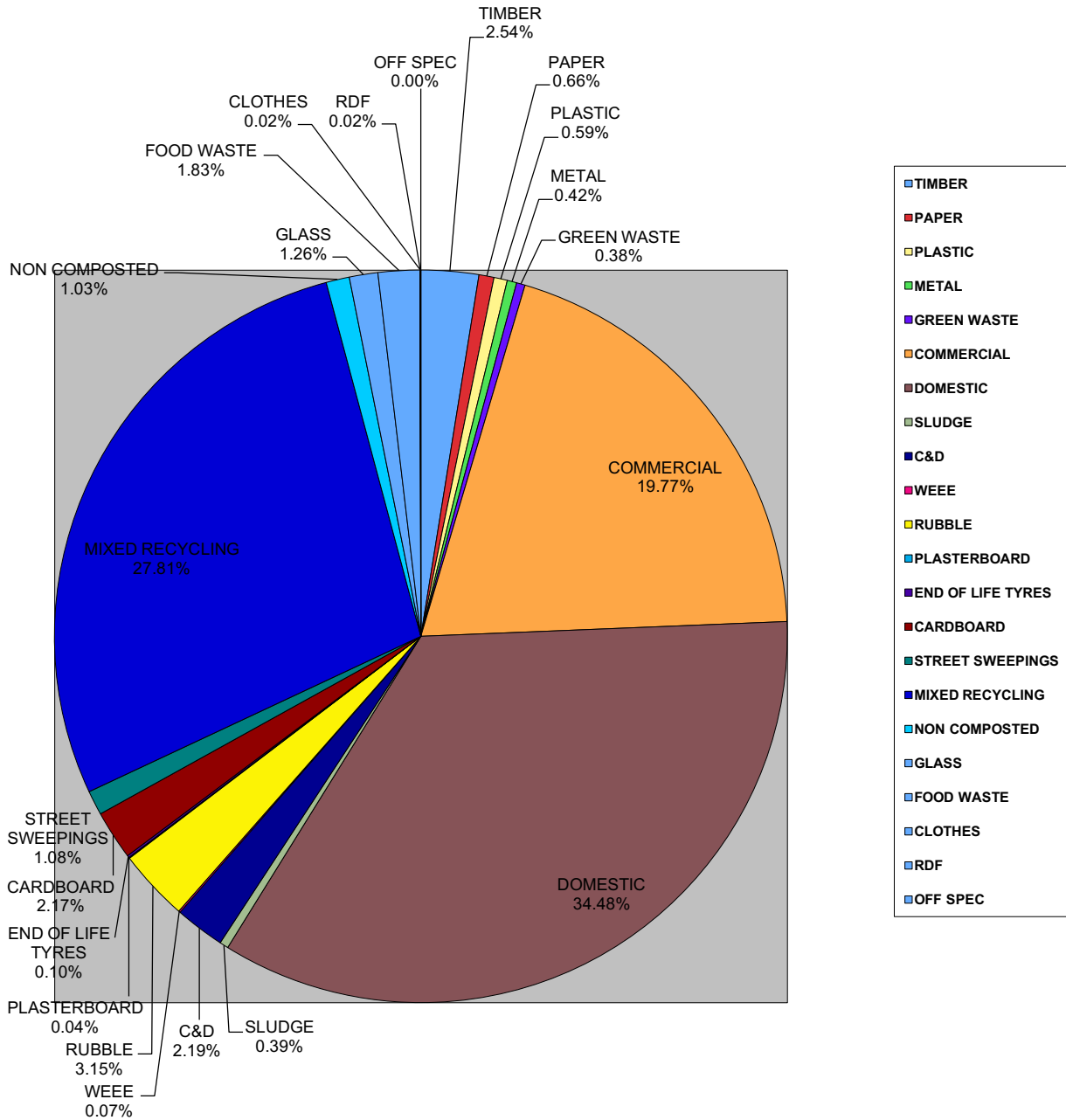
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2013. This table only shows the RECYCLABLE / RECOVERABLE material types and lists the total tonnage recycled during 2012 and the % split that each waste type provides towards the total recycling figure:-

| WASTE TYPE<br>(Recyclable materials only)   | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING  |
|---|---------------------------------|--|
| <b>EWC 200301 Mechanically treated mixed waste for recovery (Baled / Wrapped MSW)</b> | <b>41,586.38</b>                | <b>58%</b>   |
| <b>EWC 200202 Inert</b>   | <b>4325.98</b>                  | <b>6%</b>  |
| <b>EWC 191201 Cardboard</b>   | <b>4515.44</b>                  | <b>6%</b>  |
| <b>EWC 191201 Paper</b>   | <b>12,428.92</b>                | <b>17%</b>   |
| <b>EWC 191204 Plastics</b>  | <b>2648.06</b>                  | <b>4%</b>  |
| <b>EWC 191207 Timber / Wood / Green</b>   | <b>1821.42</b>                  | <b>3%</b>  |
| <b>EWC 160201 Scrap Electronics</b>   | <b>40.82</b>                    | <b>0%</b>  |
| <b>EWC 160103 Tyres</b>   | <b>277.28</b>                   | <b>0%</b>  |
| <b>EWC 191203 Metal</b>   | <b>1391.58</b>                  | <b>2%</b>  |
| <b>EWC 191205 Glass</b>   | <b>1217.30</b>                  | <b>2%</b>  |
| <b>EWC 191208 Clothes</b>   | <b>1.24</b>                     | <b>0%</b>  |
| <b>EWC 190801 Grit/screenings</b><br><b>EWC 200303 Septic Tank Sludge</b>             | <b>285.82</b>                   | <b>0%</b>  |
| <b>EWC 170802 Gypsum / Plasterboard</b>   | <b>103.28</b>                   | <b>0%</b>  |
| <b>EWC 200301 Mixed Recyclables (unsorted)</b>  | <b>289.40</b>                   | <b>0%</b>  |
| <b>EWC 191210 Refuse Derived Fuel</b>   | <b>433.82</b>                   | <b>1%</b>  |
| <b>EWC 160601* Lead Acid Batteries</b>  | <b>8.14</b>                     | <b>0%</b>  |
| <b>TOTAL</b>  | <b>71,271.60</b>                | <b>80% of total waste in<br/>was sent for recycling<br/>or recovery for 2014</b> |

**Table 2.14.4: Breakdown of recycling waste out for 1<sup>st</sup> January 2014 – 31<sup>st</sup> December 2014**

**Waste In / Out Reports for 2015**

**WASTE IN (2015)**



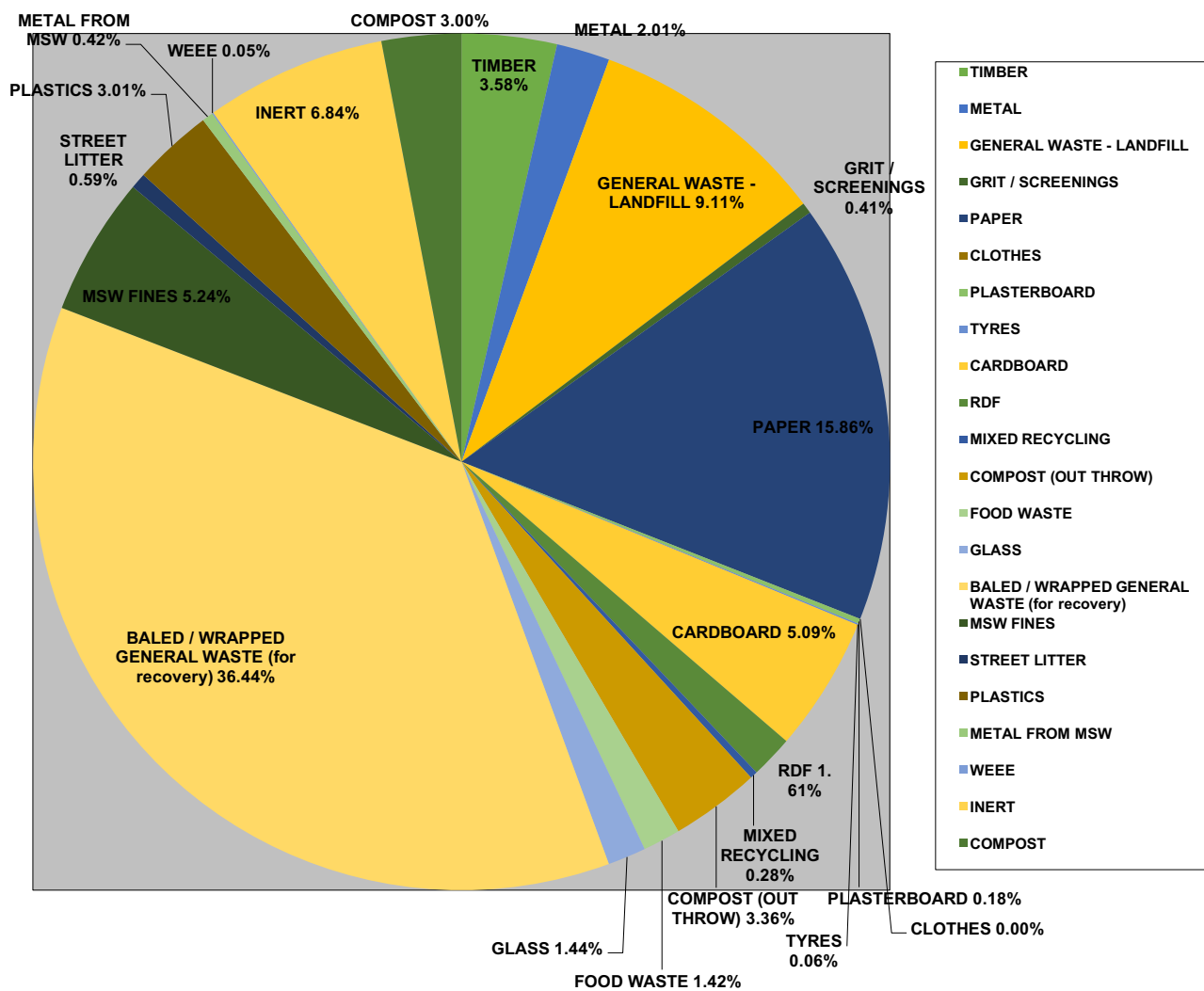
**Figure 2.15.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2015 – 31<sup>st</sup> December 2015**

Waste in for 2015: Table of quantities by waste type

| <b>WASTE TYPE</b>  | <b>WASTE IN<br/>(tonnes per annum)</b> |
|--|--|
| <b>EWC 200301 Domestic</b>                                   | <b>32621.73</b>                        |
| <b>EWC 200301 Commercial</b>                                 | <b>18701.08</b>                        |
| <b>EWC 200303 Street / Road Sweepings</b>                    | <b>1022.77</b>                         |
| <b>EWC 190501 Non Composted Fraction of Municipal Wastes</b> | <b>973.04</b>                          |
| <b>EWC 170904 Mixed C &amp; D</b>                            | <b>2076.32</b>                         |
| <b>EWC 170107 Inert</b>                                      | <b>2977.82</b>                         |
| <b>EWC 200201 Garden &amp; Park Waste</b>                    | <b>356.27</b>                          |
| <b>EWC 150101 Cardboard</b>                                  | <b>2052.87</b>                         |
| <b>EWC 200101 Paper</b>                                      | <b>626.86</b>                          |
| <b>EWC 200139 Plastic</b>                                    | <b>558.57</b>                          |
| <b>EWC 160201 Scrap Electronics / WEEE</b>                   | <b>67.58</b>                           |
| <b>EWC 200138 Timber / Wood</b>                              | <b>2402.92</b>                         |
| <b>EWC 200199 Mixed Kerbside Recyclables</b>                 | <b>26310.88</b>                        |
| <b>EWC 170407 Metal</b>                                      | <b>397.42</b>                          |
| <b>EWC 200102 Glass</b>                                      | <b>1190.28</b>                         |
| <b>EWC 160304 Off Spec Product</b>                           | <b>3.34</b>                            |
| <b>EWC 170802 Plasterboard / Gypsum</b>                      | <b>39.24</b>                           |
| <b>EWC 160103 Tyres</b>                                      | <b>90.44</b>                           |
| <b>EWC 190801 Grit/Screenings</b>                            | <b>365.53</b>                          |
| <b>EWC 200301 RDF</b>  | <b>21.58</b>                           |
| <b>EWC 200108 Food Waste</b>                                 | <b>1732.91</b>                         |
| <b>EWC 200110 Clothes / Textiles</b>                         | <b>14.82</b>                           |
| <b>TOTAL</b>   | <b>94,604.27 tonnes</b>                |

**Table 2.15.1: Total Wastes Incoming 1<sup>st</sup> January 2015 – 31<sup>st</sup> December 2015**

## Waste Out 2015



**Figure 2.15.2:**  
**Breakdown of Waste going off site for Recovery or Disposal from**  
**1<sup>st</sup> January 2015 – 31<sup>st</sup> December 2015**

Waste out for 2015: Table of quantities by waste type:-

| <b>WASTE TYPE</b>   | <b>WASTE OUT<br/>(tonnes per annum)</b> |
|---|---|
| <b>EWC 200301 Pre-sorted waste for landfill</b>   | <b>8,085.30</b>                         |
| <b>EWC 200301 Mechanically treated mixed waste for recovery<br/>(Baled / Wrapped MSW)</b> | <b>32,335.61</b>                        |
| <b>EWC 190501 Non Composted Municipal Waste<br/>(compost out throws)</b>                  | <b>2,982.19</b>                         |
| <b>EWC 190305 Stabilised Waste for Disposal</b>   |   |
| <b>EWC 191203 Metal from MSW Processing</b>   | <b>371.28</b>                           |
| <b>EWC 191212 MSW Fines from Mechanical Treatment</b>                                     | <b>4646.10</b>                          |
| <b>EWC 200202 Inert</b>   | <b>6066.95</b>                          |
| <b>EWC 200303 Street Cleaning Residues</b>  | <b>526.88</b>                           |
| <b>EWC 191201 Cardboard</b>   | <b>4513.36</b>                          |
| <b>EWC 191201 Paper</b>   | <b>14077.77</b>                         |
| <b>EWC 191204 Plastics</b>  | <b>2674.26</b>                          |
| <b>EWC 191207 Timber / Wood / Green</b>   | <b>3179.63</b>                          |
| <b>EWC 160201 Scrap Electronics</b>   | <b>44.06</b>                            |
| <b>EWC 160103 Tyres</b>   | <b>50.06</b>                            |
| <b>EWC 191203 Metal</b>   | <b>1784.45</b>                          |
| <b>EWC 191205 Glass</b>   | <b>1277.74</b>                          |
| <b>EWC 191208 Clothes</b>   | <b>1.48</b>                             |
| <b>EWC 190801 Grit/screenings</b>   | <b>361.88</b>                           |
| <b>EWC 200303 Septic Tank Sludge</b>  |   |
| <b>EWC 170802 Gypsum / Plasterboard</b>   | <b>163.46</b>                           |
| <b>EWC 200301 Mixed Recyclables (unsorted)</b>  | <b>248.70</b>                           |
| <b>EWC 191210 Refuse Derived Fuel</b>   | <b>1427.30</b>                          |
| <b>Compost – processed clean compost for farmers</b>                                      | <b>2662.38</b>                          |
| <b>EWC 200108 Food Waste (unprocessed)</b>  | <b>1258.66</b>                          |
| <b>TOTAL</b>  | <b>88,739.43 tonnes</b>                 |

**Table 2.15.3: Total Wastes Outgoing 1<sup>st</sup> January 2015 – 31<sup>st</sup> December 2015**

### RECYCLING / RECOVERY SUMMARY FOR 2015

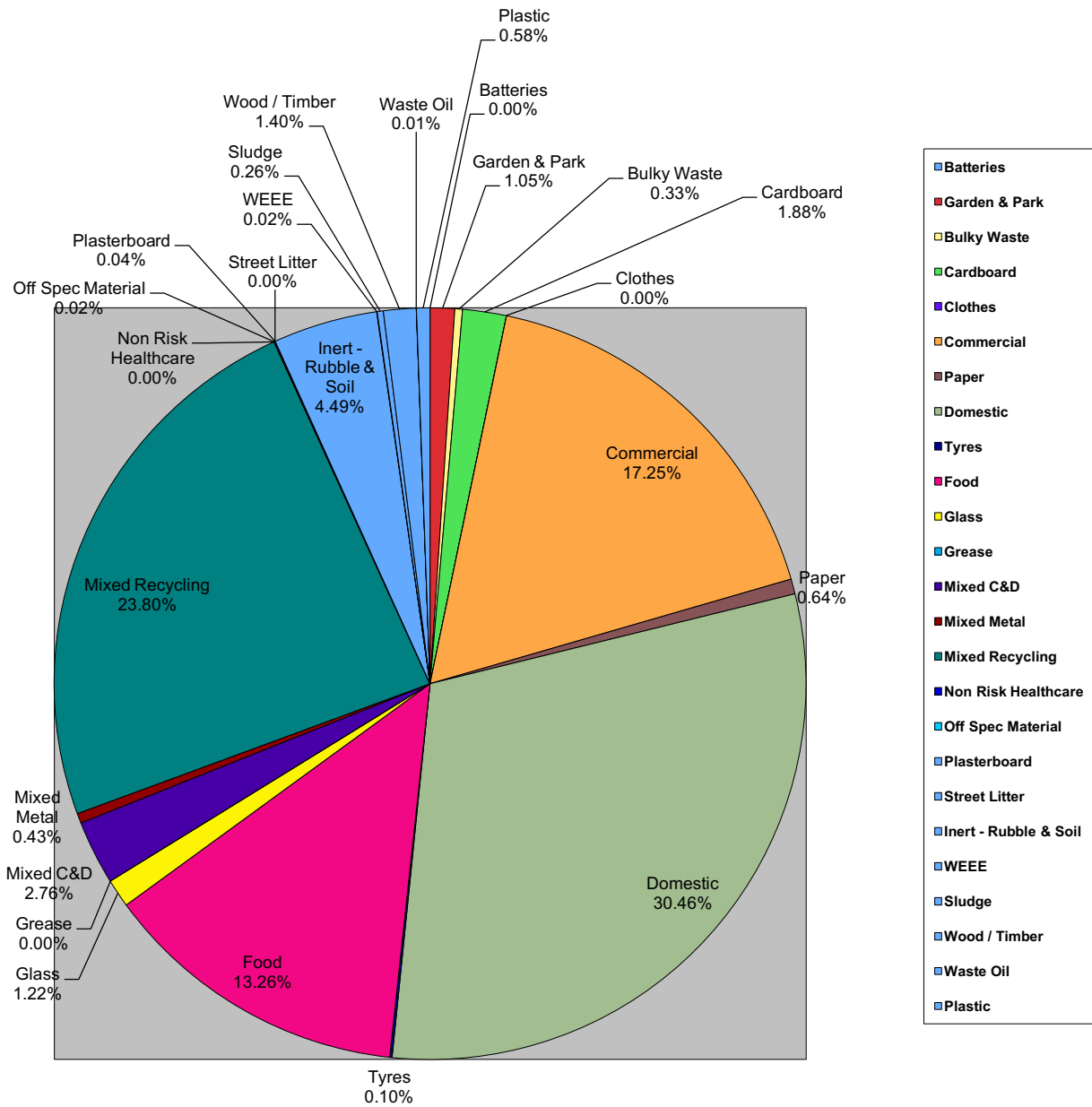
The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2015. This table only shows the RECYCLABLE / RECOVERABLE material types and lists the total tonnage recycled during 2015 and the % split that each waste type provides towards the total recycling figure:-

| WASTE TYPE<br>(Recyclable materials only)   | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING  |
|---|---------------------------------|--|
| <b>EWC 200301 Mechanically treated mixed waste for recovery (Baled / Wrapped MSW)</b> | <b>32,335.61</b>                | <b>34%</b>   |
| <b>EWC 200202 Inert</b>   | <b>6066.95</b>                  | <b>6%</b>  |
| <b>EWC 191201 Cardboard</b>   | <b>4513.36</b>                  | <b>5%</b>  |
| <b>EWC 191201 Paper</b>   | <b>14077.77</b>                 | <b>15%</b>   |
| <b>EWC 191204 Plastics</b>  | <b>2674.26</b>                  | <b>3%</b>  |
| <b>EWC 191207 Timber / Wood / Green</b>   | <b>3179.63</b>                  | <b>3%</b>  |
| <b>EWC 160201 Scrap Electronics</b>   | <b>44.06</b>                    | <b>0%</b>  |
| <b>EWC 160103 Tyres</b>   | <b>50.06</b>                    | <b>0%</b>  |
| <b>EWC 191203 Metal</b>   | <b>1784.45</b>                  | <b>2%</b>  |
| <b>EWC 191205 Glass</b>   | <b>1277.74</b>                  | <b>1%</b>  |
| <b>EWC 191208 Clothes</b>   | <b>1.48</b>                     | <b>0%</b>  |
| <b>EWC 190801 Grit/screenings</b>   | <b>361.88</b>                   | <b>0.5%</b>  |
| <b>EWC 200303 Septic Tank Sludge</b>  |                                 |  |
| <b>EWC 170802 Gypsum / Plasterboard</b>   | <b>163.46</b>                   | <b>0%</b>  |
| <b>EWC 200301 Mixed Recyclables (unsorted)</b>  | <b>248.70</b>                   | <b>0.5%</b>  |
| <b>EWC 191210 Refuse Derived Fuel</b>   | <b>1427.30</b>                  | <b>2%</b>  |
| <b>EWC 200108 Food Waste</b>  | <b>1258.66</b>                  | <b>1%</b>  |
| <b>Compost – processed clean compost for farmers</b>                                  | <b>2662.38</b>                  | <b>3%</b>  |
| <b>TOTAL</b>  | <b>72,127.75</b>                | <b>76% of total waste in was sent for recycling or recovery for 2015</b> |

**Table 2.15.4: Breakdown of recycling waste out for 1<sup>st</sup> January 2015 – 31<sup>st</sup> December 2015**

**Waste In / Out Reports for 2016 (New / Current Reporting Period)**

**WASTE IN (2016)**



**Figure 2.16.0:**  
**Breakdown of Waste Received on site from 1<sup>st</sup> January 2016 – 31<sup>st</sup> December 2016**

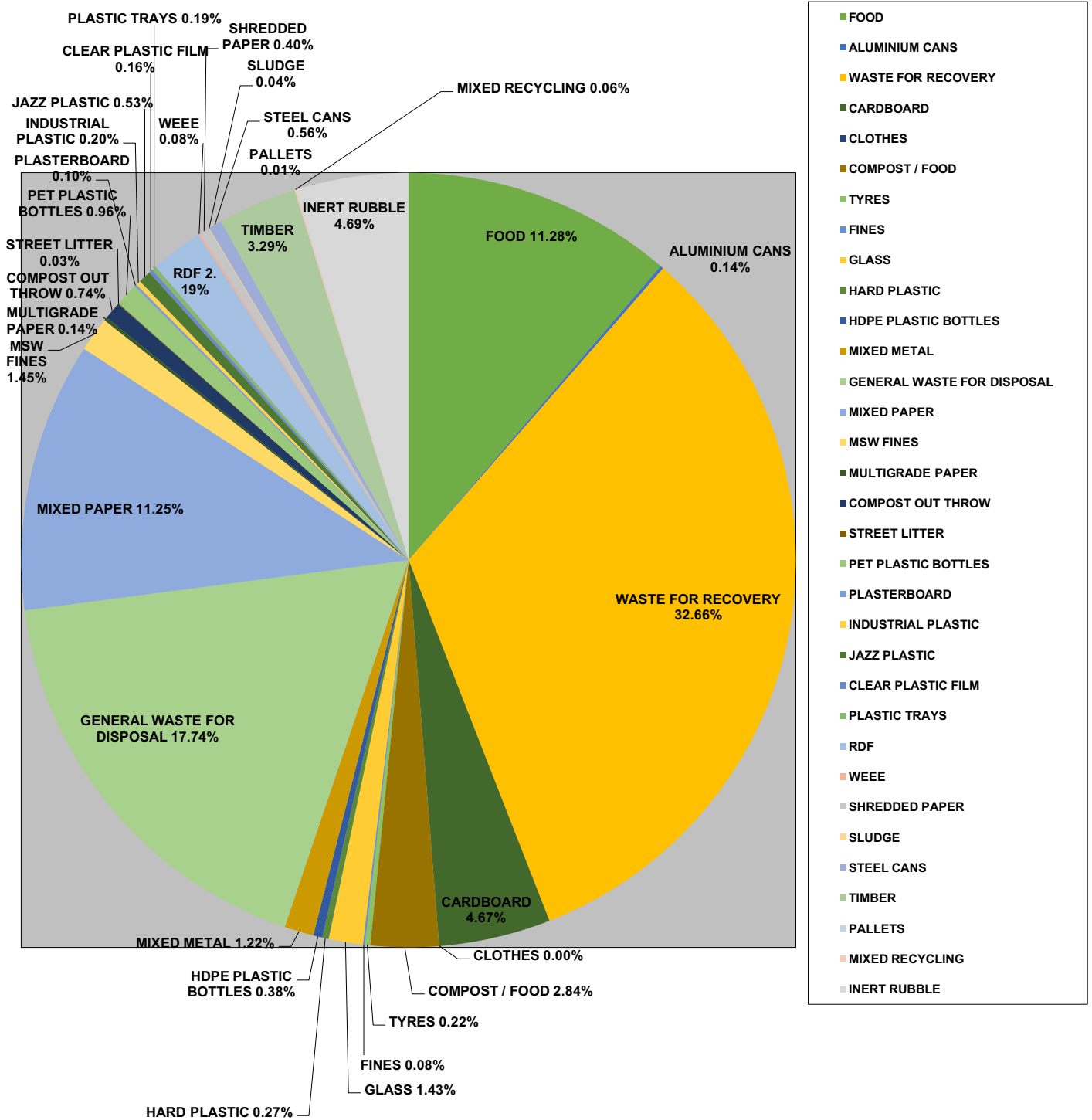
Waste in for 2016: Table of quantities by waste type

| <b>WASTE TYPE</b>                            | <b>WASTE IN<br/>(tonnes per annum)</b> |
|--|--|
| <b>EWC 200301 Domestic</b>                   | <b>32337.35</b>                        |
| <b>EWC 200301 Commercial</b>                 | <b>18312.97</b>                        |
| <b>EWC 200307 Bulky Waste</b>                | <b>348.73</b>                          |
| <b>EWC 180104 Non Risk Healthcare Waste</b>  | <b>4.74</b>                            |
| <b>EWC 200303 Street / Road Sweepings</b>    | <b>1.26</b>                            |
| <b>EWC 170904 Mixed C &amp; D</b>            | <b>2927.34</b>                         |
| <b>EWC 170107 Inert</b>                      | <b>4764.63</b>                         |
| <b>EWC 200201 Garden &amp; Park Waste</b>    | <b>1117.13</b>                         |
| <b>EWC 150101 Cardboard</b>                  | <b>1994.57</b>                         |
| <b>EWC 200101 Paper</b>                      | <b>682.18</b>                          |
| <b>EWC 200139 Plastic</b>                    | <b>613.34</b>                          |
| <b>EWC 160201 Scrap Electronics / WEEE</b>   | <b>23.60</b>                           |
| <b>EWC 200138 Timber / Wood</b>              | <b>1490.15</b>                         |
| <b>EWC 200199 Mixed Kerbside Recyclables</b> | <b>25273.35</b>                        |
| <b>EWC 170407 Metal</b>                      | <b>452.63</b>                          |
| <b>EWC 200102 Glass</b>                      | <b>1296.25</b>                         |
| <b>EWC 160304 Off Spec Product</b>           | <b>17.04</b>                           |
| <b>EWC 170802 Plasterboard / Gypsum</b>      | <b>37.3</b>                            |
| <b>EWC 160103 Tyres</b>                      | <b>109.43</b>                          |
| <b>EWC 200108 Food Waste</b>                 | <b>14083.00</b>                        |
| <b>EWC 130208 Waste Oil</b>                  | <b>5.34</b>                            |
| <b>EWC 200304 Sludge</b>                     | <b>277.07</b>                          |
| <b>EWC 200110 Clothes / Textiles</b>         | <b>4.72</b>                            |
| <b>TOTAL</b>                                 | <b>106,174.12 tonnes</b>               |

**Table 2.16.1: Total Wastes Incoming 1<sup>st</sup> January 2016 – 31<sup>st</sup> December 2016**



## Waste Out 2016



**Figure 2.16.2:**  
**Breakdown of Waste going off site for Recovery or Disposal from 1<sup>st</sup> January 2016 – 31<sup>st</sup> December 2016**

Waste out for 2016: Table of quantities by waste type:-

| <b>WASTE TYPE</b>   | <b>WASTE OUT<br/>(tonnes per annum)</b> |
|---|---|
| <b>EWC 200301 Pre-sorted waste for landfill</b>   | <b>18,010.37</b>                        |
| <b>EWC 200301 Mechanically treated mixed waste for recovery<br/>(Baled / Wrapped MSW)</b> | <b>33,150.24</b>                        |
| <b>EWC 190501 Non Composted Municipal Waste<br/>(compost out throws)</b>                  | <b>750.89</b>                           |
| <b>EWC 191212 MSW Fines from Mechanical Treatment</b>                                     | <b>1,548.55</b>                         |
| <b>EWC 200202 Inert</b>   | <b>4,764.63</b>                         |
| <b>EWC 200303 Street Cleaning Residues</b>  | <b>29.18</b>                            |
| <b>EWC 191201 Cardboard</b>   | <b>4,735.84</b>                         |
| <b>EWC 191201 Paper</b>   | <b>11,969.44</b>                        |
| <b>EWC 191204 Plastics</b>  | <b>2,731.12</b>                         |
| <b>EWC 191207 Timber / Wood / Green</b>   | <b>3,346.73</b>                         |
| <b>EWC 160201 Scrap Electronics</b>   | <b>85.18</b>                            |
| <b>EWC 160103 Tyres</b>   | <b>224.90</b>                           |
| <b>EWC 191203 Metal</b>   | <b>1,240.66</b>                         |
| <b>EWC 150104 Metal Packaging</b>   | <b>705.32</b>                           |
| <b>EWC 191205 Glass</b>   | <b>1,449.78</b>                         |
| <b>EWC 191208 Clothes</b>   | <b>0.70</b>                             |
| <b>EWC 200303 Septic Tank Sludge</b>  | <b>36.06</b>                            |
| <b>EWC 170802 Gypsum / Plasterboard</b>   | <b>103.10</b>                           |
| <b>EWC 200301 Mixed Recyclables (unsorted)</b>  | <b>60.70</b>                            |
| <b>EWC 191210 Refuse Derived Fuel</b>   | <b>2,227.56</b>                         |
| <b>Compost – processed clean compost for farmers</b>                                      | <b>2,885.01</b>                         |
| <b>EWC 200108 Food Waste (unprocessed)</b>  | <b>11,452.24</b>                        |
| <b>TOTAL</b>  | <b>101,508.20 tonnes</b>                |

**Table 2.16.3: Total Wastes Outgoing 1<sup>st</sup> January 2016 – 31<sup>st</sup> December 2016**

## RECYCLING / RECOVERY SUMMARY FOR 2016

The following table shows the % breakdown of the recyclable materials sent off site for recovery / recycling during 2016. This table only shows the RECYCLABLE or RECOVERABLE material types and lists the total tonnage recycled during 2016 and the % split that each waste type provides towards the total recycling figure:-

| WASTE TYPE<br>(Recyclable materials only)   | RECYCLING<br>(tonnes per annum) | % OF TOTAL<br>RECYCLING  |
|---|---------------------------------|--|
| <b>EWC 200301 Mechanically treated mixed waste for recovery (Baled / Wrapped MSW)</b> | <b>33.150.24</b>                | <b>41%</b>   |
| <b>EWC 200202 Inert</b>   | <b>4764.63</b>                  | <b>6%</b>  |
| <b>EWC 191201 Cardboard</b>   | <b>4735.84</b>                  | <b>6%</b>  |
| <b>EWC 191201 Paper</b>   | <b>11,969.44</b>                | <b>15%</b>   |
| <b>EWC 191204 Plastics</b>  | <b>2731.12</b>                  | <b>3%</b>  |
| <b>EWC 191207 Timber / Wood / Green</b>   | <b>3346.73</b>                  | <b>4%</b>  |
| <b>EWC 160201 Scrap Electronics</b>   | <b>85.18</b>                    | <b>&lt;1%</b>  |
| <b>EWC 160103 Tyres</b>   | <b>224.90</b>                   | <b>&lt;1%</b>  |
| <b>EWC 191203 Metal</b>   | <b>1240.66</b>                  | <b>2%</b>  |
| <b>EWC 1501?? Metal Packaging</b>   | <b>705.32</b>                   | <b>1%</b>  |
| <b>EWC 191205 Glass</b>   | <b>1449.78</b>                  | <b>2%</b>  |
| <b>EWC 191208 Clothes</b>   | <b>0.70</b>                     | <b>&lt;1%</b>  |
| <b>EWC 200303 Septic Tank Sludge</b>  | <b>36.06</b>                    | <b>&lt;1%</b>  |
| <b>EWC 170802 Gypsum / Plasterboard</b>   | <b>103.10</b>                   | <b>&lt;1%</b>  |
| <b>EWC 200301 Mixed Recyclables (unsorted)</b>  | <b>60.70</b>                    | <b>&lt;1%</b>  |
| <b>EWC 191210 Refuse Derived Fuel</b>   | <b>2227.56</b>                  | <b>3%</b>  |
| <b>Compost – processed clean compost for farmers</b>                                  | <b>2885.01</b>                  | <b>3%</b>  |
| <b>EWC 200108 Food Waste (unprocessed)</b>  | <b>11,452.24</b>                | <b>14%</b>   |
| <b>TOTAL</b>  | <b>81,169.21<br/>tonnes</b>     | <b>76% of total<br/>waste in was sent<br/>for recycling or<br/>recovery for 2016</b> |

**Table 2.16.4:**  
**Breakdown of recycling waste out for 1<sup>st</sup> January 2016 – 31<sup>st</sup> December 2016**

### Explanation of Tonnage on Site at the end of 2016

As can be seen from the waste in and out records outlined above the following are the annual totals for the Barna Recycling site in Carrowbrowne:-

Total Waste In:- **106,174.12 tonnes**  
Total Waste Out:- **101,508.20 tonnes**

This gives a difference of 4,665.92 tonnes of a difference outlining stock on site at the end of the reporting year.

During the course of the reporting year as a company we would always hold a level of stock on site of various products waiting to be processed. As a rule we try to clear the site as much as possible of recyclables etc to reduce the value of stock held at the end of the reporting year. Due to insurance and licence restrictions it is not permitted that excessive stock levels are held in any one area of the site at any time so stock rotation is an important part of our business.

As an example of typical main items of stock (not taking into account smaller items) at the end of 2016 the following stock was recorded:-

|                                  |             |
|----------------------------------|-------------|
| Mixed Recyclables:               | 450 tonnes  |
| Landfill Waste (loose):          | 1050 tonnes |
| Bulky Waste:                     | 150 tonnes  |
| Saleable Recycling Bales:        | 300 tonnes  |
| Baled / Wrapped MSW:             | 1100 tonnes |
| RDF:                             | 50 tonnes   |
| MSW Fines:                       | 200 tonnes  |
| Shredded Timber:                 | 100 tonnes  |
| Material in Composting Facility: | 2300 tonnes |
| Total:                           | 5700 tonnes |

All of these are typical stock items and vary in quantity during the reporting year and are only being used to give an example of the typical stock items that make up end of year counts on site.

It was decided because composting material naturally breaking down skews stock figures that compost and waste / recycling would be reported separately in order to give a better picture of waste movements on site.

## Compost Facility

### Waste In / Out 2016 Summary

Barna Recycling also operate a composting facility on site which is licenced by both the EPA under our existing waste licence 106/2 and in additional is accredited by the Department of Agriculture Fish and the Marine (DAFM) under licence number COMP 40.

The waste in / out of the composting facility is measured on a daily basis and tracked internally.

The material going into the composting facility is booked in using the same weighbridge as the other waste materials however it has it's own software so that those transactions can be kept completely separate from other waste transactions. This decision was made due to the unique requirement for paperwork within the composting facility and having to produce a waste intake form for each delivery. All relevant information is still recorded for each load just on our own internal IMS system.

Tonnage received into the composting facility will never balance like normal waste types in terms of quantities of waste equating to quantities of end product removed from the site due the natural breakdown of the material.

**During 2016 it should be noted that Barna Recycling's Composting Site was closed due to significant upgrades to our material reception and odour management processed. This involved the construction and implementation of three new tunnels at the front end of the process which allow new fresh material to be processed in a temperature controlled enclosed tunnel rather in an open air aisle to help control the temperature and odour of the material.**

**During this period all fresh material received on site for composting was stored and transferred to alternative facilities for processing and was not delivered into our own composting facility. The works were fully completed in November 2016 and therefore only from late November and the end of December material started to be allowed into our own composting facility. This is reflected in the numbers reported below.**

A summary of waste in for the composting facility specific to 2016 is included below:-

#### 2016 INTAKE SUMMARY

|                 |                |
|-----------------|----------------|
| <b>NOVEMBER</b> | 952.38 tonnes  |
| <b>DECEMBER</b> | 994.68 tonnes  |
| <b>TOTAL</b>    | 1947.06 tonnes |

This intake tonnage was made up by the delivery of our own materials and also some third party tonnage.

The end product compost material once it has passed all relevant testing for E-Coli, F-Coli, Quality, Nutrition's, Salmonella and AT4 then it is stored in the clean area of the facility for shipment once the 21 day maturation period has passed.

The following compost produce was shipped during 2016:-

**2016 OUTGOING SUMMARY**

Total Tonnes of Compost Shipped: 2850 tonnes

All end products were shipped to the agriculture industry for use by local farmers as either tillage of pasture land and all farms receiving end products are registered with the Department of Agriculture in advance of receiving their first load. All outgoing shipments are tracked using official commercial documents and these are on file as part of the HACCP plan for review during any inspections.

Finally a summary of typical stock levels that would be held in the composting site at anytime are included below to show stock levels at the end of the 2016 reporting period:-

|  |        |
|--|--------|
| Out throw for landfill in Storage:         | -      |
| Timber                                     | 20.00  |
| Green Waste                                | 35.00  |
| Oversize Material for Reprocessing:        | 130.00 |
| End product in Storage:                    | 40.00  |
| Batches Screened ( for tunnels):           | 500.00 |
| Batches in Pasteurisation Bunkers:         | 250.00 |
| In processing Aisles (awaiting screening): | 500.00 |
| In Gicom Tunnels:                          | 750.00 |
| In reception Aisle ( awaiting processing): | 120.00 |

This is shown to give an idea of stock still in the system so that a proper waste in versus waste out comparison can be looked at for 2016 however due to the nature of the material breaking down naturally this will never reach a point of balance.

Detail of the end destination outlets for each load shipped are detailed below:-

| Date       | Vehicle Reg | Customer/Destination    | End Usage | Commercial Document Number | Batch Number | Nett Weight(kgs) |
|------------|-------------|-------------------------|-----------|----------------------------|--------------|------------------|
| 05/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 411                        | 19052015     | 13780            |
| 05/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 411                        | 19052015     | 14440            |
| 07/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 412                        | 19052015     | 8100             |
| 07/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 412                        | 19052015     | 13060            |
| 08/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 413                        | 19052015     | 14120            |
| 08/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 413                        | 19052015     | 10680            |
| 13/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 414                        | 19052015     | 16080            |
| 13/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 414                        | 19052015     | 14340            |
| 13/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 414                        | 19052015     | 13640            |
| 19/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 415                        | 19052015     | 18080            |
| 20/01/2016 | 03G10392    | Padraig McNulty,Tully   | Tillage   | 416                        | 19052015     | 16020            |
| 21/01/2016 | 03G10392    | Padraig McNulty,Tully   | Tillage   | 417                        | 19052015     | 15000            |
| 21/01/2016 | 03G10392    | Padraig McNulty,Tully   | Tillage   | 417                        | 19052015     | 17840            |
| 21/01/2016 | 03G10392    | Padraig McNulty,Tully   | Tillage   | 417                        | 19052015     | 18900            |
| 22/01/2016 | 03G10392    | Padraig McNulty,Tully   | Tillage   | 418                        | 19052015     | 17380            |
| 25/01/2016 | 03G10392    | Thomas Meehan, Moylough | Tillage   | 419                        | 12062015     | 15400            |

|            |          |                                |         |     |          |       |
|------------|----------|--------------------------------|---------|-----|----------|-------|
| 25/01/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 419 | 12062015 | 18440 |
| 26/01/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 420 | 12062015 | 16860 |
| 26/01/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 420 | 12062015 | 20220 |
| 26/01/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 420 | 12062015 | 20360 |
| 01/02/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 467 | 12062015 | 16420 |
| 01/02/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 467 | 12062015 | 16080 |
| 01/02/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 467 | 12062015 | 16440 |
| 02/02/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 468 | 12062015 | 17960 |
| 02/02/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 468 | 12062015 | 18060 |
| 08/02/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 469 | 12062015 | 20200 |
| 08/02/2016 | 03G10392 | Thomas Meehan, Moylough        | Tillage | 469 | 12062015 | 16120 |
| 09/02/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 379 | 12062015 | 16720 |
| 09/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 470 | 22072015 | 18620 |
| 10/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 380 | 22072015 | 17200 |
| 10/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 380 | 22072015 | 15940 |
| 10/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 380 | 22072015 | 19080 |
| 10/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 380 | 22072015 | 16400 |
| 10/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 380 | 22072015 | 17020 |
| 10/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 380 | 22072015 | 17180 |
| 14/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 381 | 22072015 | 18580 |
| 14/03/2016 | 03G10392 | Padraig McNulty,Tully          | Tillage | 471 | 22072015 | 16080 |
| 14/03/2016 | 03G10392 | Padraig McNulty,Tully          | Tillage | 471 | 22072015 | 9440  |
| 15/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 382 | 22072015 | 18460 |
| 15/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 382 | 22072015 | 18220 |
| 22/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 383 | 22072015 | 13980 |
| 22/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 383 | 17082015 | 15960 |
| 22/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 383 | 17082015 | 15760 |
| 25/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 384 | 17082015 | 19440 |
| 29/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 385 | 17082015 | 18580 |
| 29/03/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 385 | 17082015 | 19320 |
| 08/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 386 | 17082015 | 19120 |
| 08/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 386 | 17082015 | 12220 |
| 12/04/2016 | 05G8595  | Padraig McNulty,Tully          | Tillage | 387 | 17082015 | 18220 |
| 12/04/2016 | 05G8595  | Padraig McNulty,Tully          | Tillage | 387 | 17082015 | 10920 |
| 14/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 388 | 17082015 | 19820 |
| 14/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 388 | 17082015 | 18940 |
| 14/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 388 | 17082015 | 13680 |
| 20/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 251 | 17082015 | 16680 |
| 20/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 251 | 17082015 | 17780 |
| 21/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 252 | 2092015  | 16420 |
| 22/04/2016 | 05G8595  | Thomas Meehan, Moylough        | Tillage | 253 | 2092015  | 17200 |
| 25/04/2016 | 03G10392 | Padraig McNulty,Tully          | Tillage | 426 | 2092015  | 19020 |
| 25/04/2016 | 03G10392 | Padraig McNulty,Tully          | Tillage | 426 | 2092015  | 19740 |
| 25/04/2016 | 03G10392 | Padraig McNulty,Tully          | Tillage | 426 | 2092015  | 17180 |
| 25/04/2016 | 03G10392 | Padraig McNulty,Tully          | Tillage | 426 | 2092015  | 21960 |
| 26/04/2016 | 05G8595  | Tom Kilkelly,<br>Abbeyknockmoy | Tillage | 254 | 2092015  | 20220 |

|            |          |                             |             |     |          |       |
|------------|----------|-----------------------------|-------------|-----|----------|-------|
| 26/04/2016 | 05G8595  | Gerard Harney, Ardrahan     | Pastureland | 255 | 2092015  | 16340 |
| 28/04/2016 | 05G8595  | Thomas Meehan, Moylough     | Tillage     | 256 | 2092015  | 16100 |
| 04/05/2016 | 03G10392 | Gerard Harney, Ardrahan     | Pastureland | 427 | 2092015  | 15880 |
| 05/05/2016 | 03G10392 | Gerard Harney, Ardrahan     | Pastureland | 428 | 2092015  | 16180 |
| 05/05/2016 | 03G10392 | Gerard Harney, Ardrahan     | Pastureland | 428 | 2092015  | 15420 |
| 05/05/2016 | 05G8595  | Tom Kilkelly, Abbeyknockmoy | Tillage     | 257 | 2092015  | 17160 |
| 05/05/2016 | 05G8595  | Tom Kilkelly, Abbeyknockmoy | Tillage     | 257 | 2092015  | 15260 |
| 06/05/2016 | 03G10392 | Gerard Harney, Ardrahan     | Pastureland | 429 | 22092015 | 17440 |
| 06/05/2016 | 03G10392 | Gerard Harney, Ardrahan     | Pastureland | 429 | 22092015 | 19860 |
| 06/05/2016 | 03G10392 | Gerard Harney, Ardrahan     | Pastureland | 429 | 22092015 | 8420  |
| 10/05/2016 | 05G8595  | Tom Kilkelly, Abbeyknockmoy | Tillage     | 258 | 22092015 | 15320 |
| 10/05/2016 | 05G8595  | Tom Kilkelly, Abbeyknockmoy | Tillage     | 258 | 22092015 | 14800 |
| 16/05/2016 | 03G10392 | Gerard Harney, Ardrahan     | Pastureland | 430 | 22092015 | 15680 |
| 16/05/2016 | 03G10392 | Gerard Harney, Ardrahan     | Pastureland | 430 | 22092015 | 15040 |
| 16/05/2016 | 05G8595  | Tom Kilkelly, Abbeyknockmoy | Tillage     | 259 | 22092015 | 17060 |
| 17/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 431 | 22092015 | 19840 |
| 17/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 431 | 22092015 | 15000 |
| 17/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 431 | 22092015 | 17380 |
| 17/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 431 | 22092015 | 16880 |
| 17/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 431 | 22092015 | 16820 |
| 18/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 432 | 22092015 | 15720 |
| 18/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 432 | 22092015 | 17880 |
| 18/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 432 | 22092015 | 21200 |
| 19/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 433 | 4112015  | 15100 |
| 19/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 433 | 4112015  | 15340 |
| 19/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 433 | 4112015  | 15660 |
| 19/05/2016 | 03G10392 | Sean Heavey, Ballinasloe    | Pastureland | 433 | 4112015  | 16700 |
| 01/06/2016 | 05G8595  | Tom Kilkelly, Abbeyknockmoy | Tillage     | 472 | 4112015  | 14600 |
| 02/06/2016 | 05G8595  | Gerard Harney, Ardrahan     | Pastureland | 473 | 4112015  | 15780 |
| 14/06/2016 | 03G10392 | Thomas Meehan, Moylough     | Tillage     | 389 | 4112015  | 14400 |
| 14/06/2016 | 03G10392 | Thomas Meehan, Moylough     | Tillage     | 389 | 4112015  | 14640 |
| 14/06/2016 | 03G10392 | Thomas Meehan, Moylough     | Tillage     | 389 | 4112015  | 15240 |
| 29/06/2016 | 00LM1787 | Gerard Harney, Ardrahan     | Pastureland | 260 | 4112015  | 18380 |
| 29/06/2016 | 00LM1787 | Sean Heavey, Ballinasloe    | Pastureland | 434 | 4112015  | 17560 |
| 30/06/2016 | 05G8595  | Sean Heavey, Ballinasloe    | Pastureland | 435 | 4112015  | 19200 |
| 04/07/2016 | 00LM1787 | Gerard Harney, Ardrahan     | Pastureland | 261 | 4112015  | 14200 |
| 05/07/2016 | 03G10392 | Michael Maloney, Menlough   | Pastureland | 390 | 4112015  | 19060 |
| 05/07/2016 | 03G10392 | Michael Maloney, Menlough   | Pastureland | 390 | 4112015  | 16920 |
| 05/07/2016 | 03G10392 | Michael Maloney, Menlough   | Pastureland | 390 | 4112015  | 19980 |
| 05/07/2016 | 00LM1787 | Gerard Harney, Ardrahan     | Pastureland | 475 | 20012016 | 15160 |
| 05/07/2016 | 00LM1787 | Gerard Harney, Ardrahan     | Pastureland | 475 | 20012016 | 15820 |
| 05/07/2016 | 00LM1787 | Gerard Harney, Ardrahan     | Pastureland | 475 | 20012016 | 16200 |
| 05/07/2016 | 00LM1787 | Gerard Harney, Ardrahan     | Pastureland | 475 | 20012016 | 16280 |
| 06/07/2016 | 00LM1787 | Gerard Harney, Ardrahan     | Pastureland | 476 | 20012016 | 16640 |
| 07/07/2016 | 05G8595  | Michael Maloney, Menlough   | Pastureland | 391 | 20012016 | 19840 |



|            |          |                              |             |     |          |       |
|------------|----------|------------------------------|-------------|-----|----------|-------|
| 07/07/2016 | 05G8595  | Michael Maloney, Menlough    | Pastureland | 391 | 20012016 | 16200 |
| 11/07/2016 | 05G8595  | Eugene Broderick, Menlough   | Pastureland | 392 | 20012016 | 17200 |
| 11/07/2016 | 00LM1787 | Gerard Harney, Ardrahan      | Pastureland | 477 | 20012016 | 15800 |
| 12/07/2016 | 00LM1787 | Gerard Harney, Ardrahan      | Pastureland | 478 | 20012016 | 16700 |
| 12/07/2016 | 05G8595  | Michael Maloney, Menlough    | Pastureland | 393 | 20012016 | 14740 |
| 12/07/2016 | 05G8595  | Eugene Broderick, Menlough   | Pastureland | 394 | 20012016 | 15280 |
| 13/07/2016 | 05G8595  | Michael Maloney, Menlough    | Pastureland | 395 | 20012016 | 15090 |
| 13/07/2016 | 00LM1787 | Gerard Harney, Ardrahan      | Pastureland | 479 | 20012016 | 17840 |
| 13/07/2016 | 00LM1787 | Gerard Harney, Ardrahan      | Pastureland | 479 | 20012016 | 17100 |
| 14/07/2016 | 00LM1787 | Gerard Harney, Ardrahan      | Pastureland | 480 | 3022016  | 18480 |
| 19/07/2016 | 05G8595  | Michael Maloney, Menlough    | Pastureland | 396 | 3022016  | 17320 |
| 20/07/2016 | 05G8595  | Michael Maloney, Menlough    | Pastureland | 397 | 3022016  | 17780 |
| 20/07/2016 | 05G8595  | Michael Maloney, Menlough    | Pastureland | 397 | 3022016  | 18220 |
| 21/07/2016 | 05G8595  | Michael Maloney, Menlough    | Pastureland | 398 | 3022016  | 17060 |
| 04/08/2016 | 03G10392 | Gerard Harney, Ardrahan      | Pastureland | 481 | 3022016  | 17660 |
| 04/08/2016 | 03G10392 | Gerard Harney, Ardrahan      | Pastureland | 481 | 3022016  | 15960 |
| 14/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 262 | 3022016  | 26760 |
| 14/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 262 | 3022016  | 26860 |
| 14/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 483 | 3022016  | 27980 |
| 14/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 483 | 3022016  | 14420 |
| 14/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 262 | 3022016  | 24460 |
| 14/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 483 | 3022016  | 14600 |
| 13/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 482 | 3022016  | 13560 |
| 15/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 263 | 3022016  | 22760 |
| 15/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 263 | 3022016  | 24040 |
| 15/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 484 | 3022016  | 12360 |
| 15/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 484 | 3032016  | 29600 |
| 15/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 263 | 3032016  | 25720 |
| 15/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 484 | 3032016  | 14880 |
| 15/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 263 | 3032016  | 24600 |
| 16/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 264 | 3032016  | 22620 |
| 16/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 264 | 3032016  | 20640 |
| 16/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 264 | 3032016  | 20340 |
| 19/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 265 | 3032016  | 24280 |
| 19/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 485 | 3032016  | 14200 |
| 19/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 265 | 3032016  | 29360 |
| 19/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 485 | 3032016  | 18540 |
| 19/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 265 | 3032016  | 24120 |
| 19/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 485 | 3032016  | 14580 |
| 20/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 486 | 3032016  | 11800 |
| 20/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 486 | 3032016  | 12580 |
| 20/09/2016 | 03G10392 | Sean Heavey, Ballinasloe     | Pastureland | 486 | 3032016  | 18500 |
| 20/09/2016 | 04G11236 | Sean Heavey, Ballinasloe     | Pastureland | 266 | 3032016  | 21100 |
| 04/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 487 | 21032016 | 17240 |
| 04/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 487 | 21032016 | 14580 |
| 04/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 487 | 21032016 | 15320 |

|            |          |                              |             |     |          |       |
|------------|----------|------------------------------|-------------|-----|----------|-------|
| 04/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 487 | 21032016 | 15320 |
| 08/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 488 | 21032016 | 16700 |
| 08/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 488 | 21032016 | 16360 |
| 08/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 488 | 21032016 | 17200 |
| 14/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 489 | 21032016 | 18200 |
| 14/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 489 | 21032016 | 18380 |
| 14/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 489 | 21032016 | 18000 |
| 14/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 489 | 21032016 | 18600 |
| 15/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 490 | 21032016 | 18800 |
| 15/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 490 | 21032016 | 18200 |
| 15/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 490 | 21032016 | 18600 |
| 15/11/2016 | 03G11202 | Fintan Cosgrave, Ballyglunin | Pastureland | 490 | 21032016 | 17900 |

Processed material must pass a quality test based on conditions set out in our EPA licence. Compost is checked for traces of metals, impurities and gravel or stones to ensure the composting process had produced a good quality material. There were no instances of quality failures of any batch during this reporting period.

All batches processed in 2016 were free from E-COLI and Salmonella following laboratory testing and therefore no rejected batches were recorded during the reporting period. All completed batches are allowed to mature for at least 21 days prior to consideration for shipment as per the requirements of our EPA licence.

Finally all material must be put through an AT4 test to determine if the material was stabilised and the composting process has been completed. The AT4 test must show that the material is <10mg/o2/g and once again all composting batches processed in 2016 reached the appropriate standard as specified in our EPA licence.

The following records are available on request in relation to our composting:

- E-Coli Test Results
- Salmonella Test Results
- AT4 Test Results
- Trace Element (Compost Quality) Test Results
- HACCP Plan and associated procedures

### **Waste In / Out 2016 Summary**

Tonnages through the facility in 2016 decreased slightly in comparison to the previous reporting year to just over 106,000 tonnes from the 109,000 tonnes accepted in 2015.

The main reasons behind the decrease in tonnage was mainly due to a drop of around 2,500 tonnes in our composting intake due to the facility being closed.

As a company we have three main waste types which we focus on which are our mixed recyclables which can be processed via our own picking station, our composting facility which we are trying to have reach it's capacity of 20,000 tonnes over the next few years and then the mixed municipal waste's which can be processed via our mechanical treatment process and sent for recovery. These are the main waste types that we are most equipped to accept and process therefore it's positive to see recycling and composting tonnage continued to grow during this reporting period.

The company licence which is for 166,000 tonnes means we have no issues in relation to tonnage limits of site and currently operate well within our licence limits.

### **2.16.5 Summary of Recycling Outlets used in 2016**

Barna Recycling are committed to finding new recycling markets in Ireland, Europe and Worldwide to ensure materials produced from the picking station and the other areas in our waste transfer station are sent to the best possible recycling outlets. All outlets for the materials going out have been approved in advance by the EPA. A summary of the major recycling outlets currently quoting and purchasing material is included below:

#### **Metals**

Galway Metal (Galway) – WFP-G-09-0006-05

Green Dragon Recycling – IRE/G074/15

#### **Cardboard & Paper**

Peute Papier Recycling (Holland) – IRE/G006/14

Recycling UK (England) – IRE/G069/15

IPR Irish Packaging Recycling (Panda, Ireland) – IRE/G133/15

Agnail Limited – IRE/AG117/16

Cellmark (USA) – IRE/AG175/15

Northwood recycling Limited – IRE/G282/15

Boost Recycling – IRE/G082/15

#### **Polystyrene**

WRC Recycling (Scotland) – IRE/G121/12

Leinster Environmental – IRE/G127/15

Waste Matters Ireland Ltd – WFP-LS-13-0001-01

#### **Plasterboard**

Macnabb Brothers – LN/09/111/M

EnviroGrind – WP0405 OR COMP-7

#### **Plastics**

WRC Recycling (Scotland) – IRE/G121/15

Leinster Environmental – IRE/G127/15

Peute Plastic Recycling (Holland) – IRE/G281/14

Jayplas (England) – IRE/G058/12

Shabra (Monaghan) – WFP-MN-08-0022-01

EnviroLink (England) – IRE/G134/12

Materia Environmental Limited – IRE/AG161/15

Nevis Resource Limited – IRE/G422/16

#### **Textiles**

Textile Recycling Ireland Limited - NWCPO-08-01225-01

#### **Glass**

Rehab Glassco – WFP-KE-08-0957-01

#### **Green Waste**

Barna Recycling Composting Site (Galway) – EPA 106/2

### **Wood**

OCR Waste Management, Roscommon – WFP-RN-10-0001-01  
Or Landfill Sites listed below (for use as cover)

### **WEEE**

Electrical Waste Management – WFP-DS-09-0012-01  
WEEE Ireland – no licence / permit

### **Batteries**

Electrical Waste Management – WFP-DS-09-0012-01

### **Tyres**

Duffy Tyre Recycling - WCP-DL-10-236-01  
MSM Recycling (Birr) – WFP-TN-11-0003-02

### **General Waste – Landfill**

Drehid Landfill – EPA 0201-03  
Rathroeen Landfill – EPA 0067/02  
Kilconnell Landfill East Galway – W0178-02

### **Bulky Waste**

Barna Recycling (Galway) – EPA WL106/02

### **General Waste – For Recovery**

Indaver Ireland – EPA WO167/03  
Cellmark (USA) – IRE/AG175/15

### **Mixed Recycling**

Dillon Waste – WFP/KY/10/001

### **Processed Compost**

All to local farmers in County Galway

## **Paperwork / Certification for Recyclable Loads & National TFS Office**

Recycling certificates are requested and kept on file for most of the companies who take recyclable material from our site. These are requested on a monthly basis and are all on file in our offices. Details of all individual transactions of waste going off site are also available from our offices and paperwork for any individual load can be viewed on request. This paperwork includes weighbridge tickets, laydown / transfer documents and the annex vii forms which are required to accompany each waste movement. Loading pictures are normally available for materials loaded into containers for the export markets.

Barna Recycling are registered as a shipper of green list material with the TFS office in Dublin and our broker's registration number for 2016 / 2017 currently is:- IRE/G032/15 which is valid until 31<sup>st</sup> December 2017.

The National TFS Office monitor, track and inspect loads of waste / recyclables being shipped from Ireland to destinations worldwide. This process has been welcomed by Barna Recycling and ensures that everyone who we sell material to are also registered as an approved broker with the

TFS office and that the end destinations which they use for our material are also registered and checked by the National TFS Office. The process of checking random containers at ports in Ireland means it is essential that we produce a good quality material via our picking station to ensure inspections are passed and no materials are rejected.

The introduction of the National TFS Office has regulated the business of shipping recyclable material and everyone now works to the same process.

All outlets used by Barna Recycling are registered with the National TFS Office and therefore ensures all our material is looked after properly and by reputable companies.

As part of our internal procedures we do not sell material to any destination / broker unless that person makes an effort to personally visit our facility. This is done for two reasons, one to ensure that they see the material they propose to purchase in person and can confirm they are happy with the quality on show and in the way the material is processed. Secondly this gives us a feel for the proposed partner and how they work. We do not ship to anyone who does not make the effort to visit the facility even if they offer the best price and we feel this is the best way to ensure long term sustained partners, reliable payment and the avoidance of using companies who may not look after the material in a proper manner.

### 3.0 Actual & Projected Waste Quantities

The following are our projected waste quantities for next year:

Table 3.0.1 outlines some projected waste quantities for the next reporting year and onwards.

**Table 3.0.1: Actual and Projected Waste Quantities**

| WASTE TYPE                  | TONNES PER ANNUM |                 |                  |                  |                  |                  |
|-----------------------------|------------------|-----------------|------------------|------------------|------------------|------------------|
|                             | 2005             | 2006            | 2007             | 2008             | 2009             | 2010             |
| Household                   | 22134.78         | 29328.22        | 28840.92         | 18539.17         | 22356.82         | 19,140.78        |
| Commercial                  | 17874.97         | 16095.29        | 22150.64         | 26433.11         | 12905.46         | 11,613.86        |
| Construction and Demolition | 4594.86          | 6234.14         | 5988.48          | 2729.37          | 1202.76          | 1,192.84         |
| Others                      | 21526.33         | 33,489.19       | 35625.35         | 35784.14         | 33288.99         | 33,117.07        |
| Biowaste                    | 0                | 0               | 1525.88          | 1674.44          | 1,960.91         | 4,303.09         |
| <b>Total</b>                | <b>66130.94</b>  | <b>85146.84</b> | <b>94,131.27</b> | <b>85,160.23</b> | <b>71,714.94</b> | <b>69,367.64</b> |

| WASTE TYPE                  | TONNES PER ANNUM |                  |                  |                   |                   |                   | PROJECTION     |
|-----------------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|----------------|
|                             | 2011             | 2012             | 2013             | 2014              | 2015              | 2016              |                |
| Household                   | 18,335.45        | 16973.75         | 27,986.41        | 36,866.37         | 32621.73          | 32337.35          | 32,500         |
| Commercial                  | 14,637.36        | 12065.34         | 13,573.78        | 14988.20          | 18701.08          | 18312.97          | 20,000         |
| Construction and Demolition | 804.43           | 1667.91          | 1,443.15         | 1068.71           | 2076.32           | 2927.34           | 3,500          |
| Others                      | 34,936.09        | 36,828.40        | 36,175.50        | 36,362.38         | 39,472.23         | 38,513.46         | 40,000         |
| Biowaste                    | 6,469.91         | 4282.78          | 10,224.03        | 14,788.91         | 16,274.27         | 14083.00          | 16,000         |
| <b>Total</b>                | <b>75,183.24</b> | <b>71,818.18</b> | <b>89,402.87</b> | <b>104,074.57</b> | <b>109,145.63</b> | <b>106,174.12</b> | <b>112,000</b> |

## **4. Site Infrastructure and Operations**

### **4.1 Existing Facility & Operations**

This section of the report is designed to give the reader an overview of our facility in relation to how it is set-up, the plant and machinery available to us, the facilities we have on site and our key operational areas. Therefore the infrastructure and set-up of the existing Barna Recycling facility is outlined below. The site has been continually developed over the past fourteen years and at the end of the current reporting period was laid out as follows:

- **Site Accommodations:**

- 1) **Canteens** – all staff both in the yard areas and office areas have their own canteens equipped with modern electrical equipment, hot and cold water and changing facilities
- 2) **Administration Offices** – comprises of a weighbridge office adjacent to our two weighbridges supported by a larger administration office building housing administration staff including Facility Manager, Operations Manager, Transport Manager and all Accounts and Sales staff, meeting rooms and archive storage . The main reception area is located within this office.
- 3) **Toilet Facilities** – toilet facilities in place at the front and rear of the facility
- 4) **Changing Facilities** – locker rooms, changing & washing facilities available for all staff on site both in Operations and Administration
- 5) **First Aid Room** – fully stocked first aid room and trained first aiders at the site.

#### **Site Infrastructure**

- Two calibrated weighbridges (weigh in / weight out) system at the entrance of the facility which are equipped with weighbridge software
- The main transfer building incorporates several areas for:

- Section 1:** NON RECOVERABLE BULKY WASTE STORAGE
- Section 2:** MIXED RECYCLABLES STORAGE (pre-picking station)
- Section 3:** PICKING STATION
- Section 4:** BALING AREA
- Section 5:** WASTE QUARANTINE AREA
- Section 6:** BACK UP BALING AREA
- Section 7:** PAPER SHREDDING AREA
- Section 8:** MSW MECHANICAL TREATMENT AREA
- Section 9:** COMPOSTING BUILDING
- Section 10:** CIVIC AMENITY SITE
- Section 11:** WRAPPED BALE STORAGE AREA
- Section 12:** WEIGHBRIDGE OFFICE & ENTRANCE
- Section 13:** ADMINISTRATION OFFICE
- Section 14:** GARAGE AND MAINTENANCE BUILDING

- The transfer building is equipped with adequate floor space to cope with the volume of waste and/or recyclables being handled at the facility. The building is split into two imaginary halves one side which handles the mixed general (non recoverable) waste from skips and the other side of the building is used for managing the recyclable materials. Mixed general waste from skips are sorted by hand and grab machine or loading shovel to ensure any materials that can be recovered are salvaged before the bulky or non-recoverable material is sent to landfill or for baling / wrapping. In normal circumstances the floor is cleared at the end of each working day.
- Our picking station is equipped at the front end with ballistic separators which pre-sort the material before manual sorting. Once through the front end of the process material is manually sorted by our operators who use positive and negative picking to sort material by grade. The picking process is supported by a magnet and edicurrent for sorting metal / aluminium. In 2014 an optical sorting machine which assists with the automated sorting of paper products was added to the line. Material sorted from the picking station is then baled directly in the adjacent balers.
- The MSW Mechanical Treatment Process for baling / wrapping waste is set-up in the new part of our site and allows us the ability to produce a mechanically treated MSW product for export to recovery outlets. This area is equipped with adequate storage space for the loose MSW, it has a shredder for shredding the MSW and removing metal, a trommel screen to remove organic fines and then a combined baling and wrapping machine to wrap the end produce ready for export.
- Wrapped Bale Storage Area was constructed during this reporting period which allows for the storage of up to 4000 bales of wrapped MSW product in the open yard area of the site
- End product storage shed – an enclosed building for storing products which are produced via our picking station which keeps them dry and in the best possible condition for selling to potential buyers. A new roof was constructed during 2014 which links the baling area with the storage area and means this entire operation now takes place inside under roof.
- Maintenance building and garage for carrying out maintenance work and general plant / fleet repairs. This section has full time on site mechanics, fitters and technical support teams. This area is also kitted with a bunded oil storage area for fresh and used oil.
- Civic Amenity Site – located at the front of our facility next to our weighbridge office. The site is staffed during operational hours and allows the segregation of general waste, mixed recyclables, cardboard, glass, timber, stones, metal, clothes, batteries and all types of white goods and electrical items for members of the public.
- Composting Building – for the acceptance and processing of biodegradable material to a European Standard. This process is equipped with fans, scrubbers, curtains, air supplies and mobile plant to ensure composting can be produced at the back end of the facility. During this reporting period new tunnels were installed at the front end of our process to assist with both odour management and the general processing of the material itself. They become operational in late November during this reporting period.
- Wash Bay – this area is used for the washing of all trucks and mobile fleet, mobile plant and machinery within the facility and other equipment (such as bins / skips).

- Dock loading bays – the facility is equipped with loading bays which allow containers to be backed up to the entrance of our storage shed for loading. This has almost halved the loading times of containers at the site and significantly reduced litter at this area of the site
- Shed on permitted area of the site which as yet is not in use but a business plan will be developed for this in 2017.

This current set-up allows us to accept and process the volumes and types of waste / recycling that we currently collect. The plant and equipment we have in place is adequate to support these processes and we have a good quality support staff in place to ensure our operations are able to be carried out as required. Changes to the facility and new investments are always being considered but the current site is equipped with the technology and equipment we require to manage the materials we have today.

### **Environmental Management System (EMS)**

The operation of our facility is supported by our EMS system as required by our EPA licence. The documents within our EMS outline how we carry out our daily operations and contains the forms used to record information from our processes / activities. This system is constantly under review and every document is fully reviewed on at least an annual basis.

**This system is ISO 14001 accredited by the NQA. Barna Recycling were audited again during 2016 and successfully retained the ISO14001 certification for another year. Details of the audit result are available on request from Barna Recycling.**

#### **Significant Change to EMS**

During 2014 there was a significant change to our EMS which involved the incorporation of all procedures required to operate our new composting facility into the existing EMS. These procedures were all written specifically for our own composting facility and include forms for recording all necessary records within the facility. All composting procedures can be uniquely identified by the 'COM' in the filename of the procedure. The Compost Manager and Facility Manager are responsible for the maintenance and implementation of these new procedures.

In this reporting period a full review of all composting documents was carried out as a result of a significant change in the process with the construction of the new tunnels. No new documents were added but the changes involved amendments to existing procedures.

The following details a complete list of the names / titles of all procedures and documents used at the facility at the end of 2016. This is included to give the reader of this report an overview of the policies / procedures we use internally and to provide evidence that an adequate and detailed EMS system is in place:

### **BARNA RECYCLING - EMS Contents Listing**

| <b><u>Document Number</u></b> | <b><u>Document Title</u></b>                           | <b><u>Current Revision / Status</u></b> |
|-------------------------------|--|---|
| 1. BW/EMS/001                 | BW-EMS-001 EMS Manual (REV 6).DOC                      | 6                                       |
| 2. BW/EMS/002                 | BW-EMS-002 BW Environmental Policy (REV 5).DOC         | 5                                       |
| 3. BW/EMS/003                 | I.E.R  | 0                                       |
| 4. BW/EMS/004                 | BW-EMS-004 Documentation Control Procedure (REV 1).DOC | 1                                       |
| 5. BW/EMS/005                 | BW-EMS-005 Document Issuance Form (REV 2).XLS          | 2                                       |
| 6. BW/EMS/006                 | BW-EMS-006 Document Review Form (REV 2).XLS            | 2                                       |



|                |   |          |
|----------------|---|----------|
| 7. BW/EMS/007  | BW-EMS-007 EMS Programme Management Review Form (REV 1).XLS                       | 1        |
| 8. BW/EMS/008  | BW-EMS-008 BW Aspects Register (REV 12).xls                                       | 12       |
| 9. BW/EMS/009  | BW-EMS-009 Records Management Procedure (REV 1).DOC                               | 1        |
| 10. BW/EMS/010 | BW-EMS-010 Management Team Roles & Responsibilities (REV 5).doc                   | 5        |
| 11. BW/EMS/011 | BW-EMS-011 Management Review Schedule (REV 10).XLS                                | 10       |
| 12. BW/EMS/012 | BW-EMS-012 Revision History Form (REV 1).XLS                                      | 1        |
| 13. BW/EMS/013 | BW-EMS-013 Training Course Attendance Form (REV 1).XLS                            | 1        |
| 14. BW/EMS/014 | BW-EMS-014 Emergency Preparedness & Response Procedure (REV 3).DOC                | 3        |
| 15. BW/EMS/015 | BW-EMS-015 Communications Procedure (REV 2).DOC                                   | 2        |
| 16. BW/EMS/016 | BW-EMS-016 Waste Handling & Disposal Procedure (REV 3).docx                       | 3        |
| 17. BW/EMS/017 | BW-EMS-017 Accident Report Form (REV 2).doc                                       | 2        |
| 18. BW/EMS/018 | BW-EMS-018 BW Health and Safety Equipment Form (Rev 2).DOC                        | 2        |
| 19. BW/EMS/019 | BW-EMS-019 BW Training Procedure (Rev 1).DOC                                      | 1        |
| 20. BW/EMS/020 | BW-EMS-020 EMS Records Index (REV 2).DOC  | 2        |
| 21. BW/EMS/021 | BW-EMS-021 Environmental Employee Feedback Form (REV 2).XLS                       | 2        |
| 22. BW/EMS/022 | BW-EMS-022 Approved Supplier Control Procedure (REV 2).DOC                        | 2        |
| 23. BW/EMS/023 | OBSOLETE – Approved Supplier List   | Obsolete |
| 24. BW/EMS/024 | BW-EMS-024 EMS Programmes List (REV 13).doc                                       | 12       |
| 25. BW/EMS/025 | BW-EMS-025 Programme Management Procedure (REV 2).DOC                             | 2        |
| 26. BW/EMS/026 | BW-EMS-026 Emergency Response Team Listing (REV 10).docx                          | 10       |
| 27. BW/EMS/027 | Legal Register - Barna Recycling Nov 1st 2013.doc                                 |          |
| N/A            |   |          |
| 28. BW/EMS/028 | BW-EMS-028 Register of Legislation Management Procedure (REV 4).doc               | 4        |
| 29. BW/EMS/029 | BW-EMS-029 EMS Internal Audit Procedure (REV 1).DOC                               | 1        |
| 30. BW/EMS/030 | BW-EMS-030 Internal Audit Report Form (REV 1).XLS                                 | 1        |
| 31. BW/EMS/031 | BW-EMS-031 Audit Non Conformance Form (REV 1).DOC                                 | 1        |
| 32. BW/EMS/032 | BW-EMS-032 Employee Details Form (REV 1).DOC                                      | 1        |
| 33. BW/EMS/033 | BW-EMS-033 EMS Internal Audit Schedule (REV 14).xls                               | 14       |
| 34. BW/EMS/034 | BW-EMS-034 Emergency Contact List (REV 5).docx                                    | 5        |
| 35. BW/EMS/035 | BW-EMS-035 Barna Recycling Safety Statement Declaration (REV 0).doc               | 0        |
| 36. BW/EMS/036 | BW-EMS-036 Internal Environmental Checklist (REV 0).doc                           | 0        |
| 37. BW/Ops/001 | BW-OPS-001 Company Organisation Chart (REV 17).doc                                | 17       |
| 38. BW/Ops/002 | BW-OPS-002 BW Monitoring and Recording Schedule (REV 2).XLS                       | 2        |
| 39. BW Ops/003 | BW-OPS-003 Foul Water Discharge Meter Reading Form (REV 1).XLS                    | 1        |
| 40. BW/Ops/004 | BW-OPS-004 Waste Inspection Sheet (Rev 4).xls                                     | 4        |
| 41. BW/Ops/005 | BW-OPS-005 Waste Processing Procedure (REV 4).DOC                                 | 4        |
| 42. BW/Ops/006 | BW-OPS-006 Housekeeping & Nuisance Inspection Procedure (REV 2).DOC               | 2        |
| 43. BW/Ops/007 | BW-OPS-007 Nuisance & Housekeeping Inspection Sheet (REV 2).DOC                   | 2        |
| 44. BW/Ops/008 | BW-OPS-008 BBT Procedure for General Monitoring (REV 2).DOC                       | 2        |
| 45. BW/Ops/009 | BW-OPS-009 Waste Profiling Form (REV 1).doc                                       | 1        |
| 46. BW/Ops/010 | OBSOLETE – Bund Testing Results Form  | Obsolete |
| 47. BW/Ops/011 | OBSOLETE - Bund Integrity Test Procedure  | Obsolete |
| 48. BW/Ops/012 | BW-OPS-012 Drainage, Bund and Oil Interceptor Audit Sheet (Rev 2).xls             | 2        |
| 49. BW/Ops/013 | BW-OPS-013 Environmental Incident investigation Form (REV 1).xls                  | 1        |
| 50. BW/Ops/014 | BW-OPS-014 Environmental Incident Investigation & Reporting Procedure (REV 1).doc | 1        |
| 51. BW/Ops/015 | BW-OPS-015 Environmental Complaints Form (REV 1).doc                              | 1        |
| 52. BW/Ops/016 | BW-OPS-016 Environmental Non Compliance Form (REV 1).doc                          | 1        |
| 53. BW/Ops/017 | BW-OPS-017 Environmental Non-Compliance Procedure (REV 1).DOC                     | 1        |
| 54. BW/Ops/018 | BW-OPS-018 Residuals Management Procedure (REV 1).doc                             | 1        |
| 55. BW/Ops/019 | BW-OPS-019 Barna Recycling Incoming Checklist (REV 1).doc                         | 1        |
| 56. BW/Ops/020 | BW-OPS-020 Barna Recycling Outgoing Checklist (REV 2).doc                         | 2        |
| 57. BW/Ops/021 | BW-OPS-021 Equipment Maintenance Procedure (REV 2).doc                            | 2        |
| 58. BW/Ops/022 | BW-OPS-022 Equipment Maintenance Schedule Checklist (REV 2).doc                   | 2        |
| 59. BW/Ops/023 | BW-OPS-023 Picking Station Procedure (REV 2).doc                                  | 2        |
| 60. BW/Ops/024 | Obsolete - Boston Scientific Procedure  | Obsolete |
| 61. BW/Ops/025 | Obsolete - Medtronic AVE Materials Procedure                                      | Obsolete |
| 62. BW/Ops/026 | BW-OPS-026 Toolbox Training for Forklift Operators.doc                            | 0        |
| 63. BW/Ops/027 | BW-OPS-027 Battery Charging Health and Safety Procedure (REV 0).doc               | 0        |
| 64. BW/Ops/028 | BW-OPS-028 Weekly Checklist for Excavator Grab (REV 0).doc.docx                   | 0        |
| 65. BW/Ops/029 | BW-OPS-029 Weekly Checklist for Forklifts (REV 0).doc.docx                        | 0        |

|                   |   |          |
|-------------------|---|----------|
| 66. BW/Ops/030    | BW-OPS-030 Weekly Checklist for Loading Shovel (REV 0).doc.docx                       | 0        |
| 67. BW/Ops/031    | BW-OPS-031 BBT Noise Health and Safety Policy (REV 0).doc                             | 0        |
| 68. BW/Ops/032    | BW-OPS-032 Permit to Dig Form (REV 0).doc   | 0        |
| 69. BW/Ops/033    | BW-OPS-033 Manual Handling Policy Procedure (REV 0).doc                               | 0        |
| 70. BW/Ops/034    | BW-OPS-034 Composting Odour Management Procedure (REV 0).docx                         | 0        |
| 71. BW/Ops/035    | BW-OPS-035 Barna Recycling Construction Safety Check List (REV 0).doc                 | 0        |
| 72. BW/Ops/036    | Number to be re-used no document  |          |
| 73. BW/Ops/037    | BW-OPS-037 Barna Recycling Facility Health & Safety Guidelines (REV 0).DOC            | 0        |
| 74. BW/Ops/038    | OBSOLETE - Barna Recycling Fire Drill Guidelines                                      |          |
| 75. BW/Ops/039    | BW-OPS-039 Barna Recycling Weekly Fire Equipment Checksheet (REV 0).xlsx              | 0        |
| 76. BW/Ops/040    | BW-OPS-040 Barna Recycling First Aid Equipment Checklist (REV 0).doc                  | 0        |
| 77. BW/Ops/041    | BW-OPS-041 Barna Recycling Weekly Health & Safety Checklist (REV 0).doc               | 0        |
| 78. BW/Ops/042    | BW-OPS-042 Barna Recycling Hot Works Permit (REV 0).doc                               | 0        |
| 79. BW/Ops/043    | BW-OPS-043 BBT Hot Works Procedure (REV 0).DOC  | 0        |
| 80. BW/Ops/044    | BW-OPS-044 Machine – Permit to Work Form (REV 0).doc                                  | 0        |
| 81. BW/Ops/045    | Still to be used missed in error  |          |
| 82. BW/Ops/046    | BW-OPS-046 Health & Safety Records Index (REV 0).doc                                  | 0        |
| 83. BW/Ops/047    | BW-OPS-047 Induction Checklist for Visitors to Barna Recycling (REV 0).doc            | 0        |
| 84. BW/Ops/048    | Composting Waste Acceptance Form  | Obsolete |
| 85. BW/Ops/049    | Compost Processing Procedure  | Obsolete |
| 86. BW/Ops/050    | BW-OPS-050 Procedure for Handling a Rejected Load of SRF (REV 0).doc                  | 0        |
| 87. BW/TRA/001    | BW-TRA-001 Barna Recycling Training Matrix (REV 17).xls                               | 17       |
| 88. BW/TRA/002    | BW-TRA-002 Induction Training Procedure (REV 3).doc                                   | 3        |
| 89. BW/TRA/003    | OBSOLETE - Employee Roll Call Listing   | Obsolete |
| 90. BW/TRA/004    | OBSOLETE - Approved Forklift Drivers Listing  | Obsolete |
| 91. BW/TRA/005    | BW-TRA-005 BBT Bin Lifting Equipment Training Document (REV 0).doc                    | 0        |
| 92. BW/TRA/006    | BW-TRA-006 Health & Safety Ear Muffs Fitting Instructions (REV 0).doc                 | 0        |
| 93. BW/TRA/007    | BW-TRA-007 Health & Safety Foam Plugs Fitting Instructions (REV 0).doc                | 0        |
| 94. BW/COM/001    | BW-COM-001 Feedstock Acceptance Procedures (Rev 1).doc                                | 3        |
| 95. BW/COM/002    | BW-COM-002 Feedstock Supply Contact (Rev 0).doc                                       | 1        |
| 96. BW/COM/003    | BW-COM-003 Guide to Barna Compost Acceptable Waste Types (Rev 0).doc                  | 0        |
| 97. BW/COM/004    | BW-COM-004 Rejected Waste Form (Rev 0).doc  | 2        |
| 98. BW/COM/005    | BW-COM-005 Barna Compost Material Delivery Form (Rev 0).doc                           | 2        |
| 99. BW/COM/006    | BW-COM-006 Waste Inspection Log & Rejection Form (Rev 0).doc                          | 2        |
| 100. BW/COM/007   | BW-COM-007 Procedures in Relation to Transformation Parameter Achievement (Rev 0).doc | 2        |
| 101. BW/COM/008   | BW-COM-008 Batch Record Document (REV 1).doc  | 2        |
| 102. BW/COM/009   | BW-COM-009 Particle Size Record Sheet (REV 0).doc                                     | 0        |
| 103. BW/COM/010   | BW-COM-010 Superbatch Record Sheet (REV 0).doc  | 1        |
| 104. BW/COM/011   | BW-COM-011 Barna Recycling Pasteurisation Procedure (REV 0).doc                       | 0        |
| <b>BW/COM/012</b> | <b>Not currently in use</b>   |          |
| <b>BW/COM/013</b> | <b>Not currently in use</b>   |          |
| 105. BW/COM/014   | BW-COM-014 Temperature Failure Investigation (Rev 0).doc                              | 1        |
| 106. BW/COM/015   | BW-COM-015 Sampling Procedures (Rev 1).doc  | 2        |
| 107. BW/COM/016   | BW-COM-016 Sampling Record E. COLI (Rev 0).doc  | 0        |
| 108. BW/COM/017   | BW-COM-017 Sampling Record Salmonella (Rev 0).doc                                     | 0        |
| 109. BW/COM/018   | BW-COM-018 Microbial Failure Procedure (REV 0).doc                                    | 2        |
| 110. BW/COM/019   | BW-COM-019 Microbial Sampling Failure Record Sheet (Rev 0).doc                        | 1        |
| 111. BW/COM/020   | BW-COM-020 Cleaning and Hygiene Procedures Personnel (Rev 1).doc                      | 1        |
| 112. BW/COM/021   | BW-COM-021 Hygiene Inspection Sheet (Rev 0).doc                                       | 1        |
| 113. BW/COM/022   | BW-COM-022 Cleaning and Hygiene Procedures Facility (REV 1).doc                       | 2        |
| 114. BW/COM/023   | BW-COM-023 Vehicles Exiting via Emergency Exit Record Sheet (Rev 0).doc               | 0        |
| 115. BW/COM/024   | BW-COM-024 Cleaning in Clean Area Record Sheet (Rev 0).doc                            | 0        |

|                   |  |   |
|-------------------|--|---|
| 116. BW/COM/025   | BW-COM-025 Procedures to Prevent Re-contamination of Compost (REV 0).doc   | 2 |
| 117. BW/COM/026   | BW-COM-026 Barna Compost Vermin and Pest Control (Rev 0).doc               | 2 |
| <b>BW/COM/027</b> | <b>Not currently in use</b>  |   |
| 118. BW/COM/028   | BW-COM-028 Barna Compost Records Maintenance & Calibration (Rev 0).doc     | 2 |
| <b>BW/COM/029</b> | <b>Not currently in use</b>  |   |
| 119. BW/COM/030   | BW-COM-030 Cold Spots Check Record Sheet (Rev 0).doc                       | 1 |
| 120. BW/COM/031   | BW-COM-031 Maintenance Check Record Sheet (Rev 0).doc                      | 0 |
| 121. BW/COM/032   | BW-COM-032 Compost Dispatch Procedure (Rev 0).doc                          | 1 |
| 122. BW/COM/033   | BW-COM-033 Compost Dispatch Record Sheet (Rev 0).doc                       | 1 |
| <b>BW/COM/034</b> | <b>Not currently in use</b>  |   |
| <b>BW/COM/035</b> | <b>Not currently in use</b>  |   |
| 123. BW/COM/036   | BW-COM-036 HACCP Audit Procedure (Rev 0).doc                               | 1 |
| 124. BW/COM/037   | BW-COM-037 Barna Compost Internal Audit Checklist (Rev 0).doc              | 1 |
| 125. BW/COM/038   | BW-COM-038 Barna Compost Training Procedure (Rev 0).doc                    | 2 |
| 126. BW/COM/039   | BW-COM-039 Record of Training by Barna Compost Personnel (Rev 0).doc       | 0 |
| 127. BW/COM/040   | BW-COM-040 Barna Compost HACCP (Rev 0).doc                                 | 1 |
| 128. BW/COM/041   | BW-COM-041 Barna Compost Vehicle Exiting Clean Area Record Log (Rev 0).doc | 0 |

## 4.2. Plant & Machinery / Road Fleet

This section of the report details the plant and equipment available for use both on site and in relation to the collection of waste / recyclables. The plant and fleet are under constant review to ensure they meet the requirements of our business.

The current plant either in use or available for use on site consists of the following which demonstrates that we have the appropriate back-up equipment in place should any of the day to day equipment we have on site breaks down.

This is the current list of equipment for the end of the 2016 reporting period:-

- 3 x large loading shovels for managing waste in the transfer area
- 2 x mini loading shovels for managing waste in the picking station bays or main transfer station
- 4 x track machine excavators
- 4 x Liebherr grab machines for loading trucks and managing movements of waste
- 3 x forklifts
- 1 x Teleporters
- 1 x Finger Screener
- 3 x mobile trommels
- 1 x Extec Stone Shredder/Crusher
- 1 x Pre Shredder / Waste Reducing machine
- 1 x Shredder fitted with magnetic separator
- 2 x EXCEL Baler (1 with bottle piercer)
- 1 x Harris Twin-Ram Baler
- 2 x Paper Shredding machines
- 3 x Picking Station Conveyers and 10 x Material Bunkers
- 3 x Ballistic Separating Machines
- 1 x Mobile road sweeper
- 1 x Fire Engine
- 1 x Diesel Tanker (used to fill all plant / machinery on site)
- 2 x Weighbridges with Computer system and software
- 1 x Mobile Power Washer
- 1 x Cherry Pickers
- 12 x 45ft storage containers
- 1 x Daewoo Clamp Loading Forklift
- 1 x Mitsubishi Clamp Loading Forklift
- 1 x Swarf Metal Baler / Briquetter
- 1 x Compost Turing Mobile Unit
- 2 x Compost Loading Shovels
- 1 x Titech Optical Sorting Machine
- 18 x Calibrated Temperature Probes
- 1 x Baler & Wrap Machine

The above list of plant / machinery provides us with the equipment to manage our busy waste transfer station. This is supported with a full fleet of collection vehicles for different types of collections such as standard RCV's, hook bin lorries, curtainsiders, vans & skip lorries. The above list of equipment is not in permanent use 100% of the time and some of the equipment acts as backup in times where we suffer breakdowns to ensure where possible there is no impact on production or collections. A Transport Manager is in place to ensure the collection fleet are well maintained and our Operations Manager is responsible for ensuring maintenance and proper use of the machinery within the transfer station. The management team are backed up by onsite mechanics and fitters who try to repair most defects in house.

A washing programme for all trucks, machinery and equipment is in place to ensure the appearance of our equipment / fleet is always of a high standard. Only in cases of a serious malfunction would our collections or production be seriously affected. Barna Recycling try to invest some of our annual budget each year towards the upgrading of the above list of plant and equipment.

Our main priorities at present are to ensure that we develop our twin pack collection vehicles to offer us the ability to collect both waste and recyclable material from our customers on the same day thus reducing collections from weekly to fortnightly and reducing our costs and carbon footprint.

In addition last year we identified that we must improve the efficiency of our pay by weight through to invoicing structure to allow us access to good quality data and streamline this process. Investment in new systems for this started in 2014 through the incorporation of data systems (eg. MOBA) on the backs of most of our trucks and introduction of handheld devices for our drivers and helpers. This work was completed during this reporting period and now ALL trucks and drivers have been introduced to the handheld systems.

The pay by weight functionality has been rolled out and we would have been in a position to have all domestic trucks set-up and ready for use by the 1<sup>st</sup> July deadline for pay by weight but this process was not implemented for the moment by the Government.

A review of the fleet and machinery in terms of age is also underway and a plan is in place to gradually reduce the age of the equipment over the next few years on a phased approach.

For the moment we are comfortable that the above list of machinery / plant is able to manage the volumes of waste we are collecting and processing while providing the appropriate level of backup in the case of breakdown.

### **4.3. Proposed Future Developments / Specified Engineering Works**

The Barna Recycling Facility in Carrowbrowne has been in an almost constant state of change over the past 14 years. We want the facility to continually develop to meet the demands of our customers and the ever changing legislation that affects us as well as being responsive to new technologies which come onto the market.

#### **2016 Planned Developments (Update on Progress)**

During the current reporting period the company again made changes to improve the site and the following is a summary of the main infrastructural changes:-

##### **Composting**

- During 2016 we completed the implementation of a programme of improvement in relation to odour management in the compost area. This work was commissioned and designed by a company called Gicom in Holland and involved the construction of tunnels which will allow the raw fresh food waste to be immediately put in a bunker. The bunker is a temperature controlled environment and odour can be managed within the tunnel structures by use of a biofilter. The system is also be remotely monitored by Gicom to ensure it's being used to it's potential on a daily basis. As of the end of 2016 the tunnels had been operational for approximately 6 weeks and initial test results were positive in relation to the effectiveness of the project. The general performance of the tunnels should in time have a positive impact on the processing times of the compostable material within the place and a full report on this will be provided in next years report when a pattern of data has been established.

##### **Picking Station**

- The picking station was only slightly upgraded during this reporting period with improvements made to conveyors and the ballistic separating equipment. We still have a plan in place to make significant changes to this process which will be rolled on out in 2017 or early 2018.

##### **Bale / Wrap Process**

- There were no significant changes to this process during the reporting period the material flow and equipment is the same as in the previous reporting period.

##### **Maintenance / Storage Compound**

- During this reporting period significant progress was made on this project with the new garage now operational. All constructions works to the garage are complete and it is now in use on a daily basis. This garage took a significant investment in order to have it to the standard required to maintain and support a large fleet of trucks like we have. The garage has been equipped with modern and proven technologies to allow our mechanics access to tools they need in order to maintain the fleet to the best possible standard. The completion of this work is a significant achievement in the plans we had for 2016 and will greatly benefit the company moving forward have a facility like this on site. The changes here will have no impact on the licenced facility as all work took place away from the licenced site.

##### **Hardstand Review**

In this reporting period we carried out a full review of all hardstand areas on site and this review was completed by an independent third party who produced a report and action plan arising from the inspection. All works advised were completed on schedule by the end of 2016 and the hardstand on site is now in a very good condition. This review will be repeated in the second half of the new reporting period.

## **2017 Proposed Developments**

The company are committed to continuous improvement of the site and therefore at the beginning of each reporting year we identify areas on the site which are important to provide investment in and ensure they improve and progress. During discussions for 2017 the following have been set as priorities for improvement:-

- 1) Implement upgrades to the company picking station using equipment purchased in 2015
- 2) Develop a business plan for the empty constructed shed outside of the current licenced site and work to have this site developed and included within the scope of our licence

## **5. Complaints Summary**

All internal environmental complaints are documented through the Environmental Management System (EMS) procedures on the following documents:

- Environmental Complaints Form (BW-OPS-015)

Any environmental non-compliances are recorded and documented by the EPA via audits / site visits and are the responsibility of the Management Team to fix and ensure the appropriate corrective and preventive actions are put in place.

Internal audits are also carried out as part of our ISO 14001 certification and continual improvement plans. Internal audits are carried out by the Facility Manager who is qualified to conduct them.

Results of these are recorded on:

- Environmental Non-Compliances Form (BW-OPS-016)

All results are on file and available for review via the Facility Manager.

All documented Complaint or Non Compliances are recorded and kept on file as part of the EMS System and a file maintained of all open and closed records.

Any complaints received by the EPA will be documented on the EDEN online management system and records of those will be kept on that system only.

Any complaints received will immediately be assigned to a member of the management team to find a solution / corrective action. They will be taken seriously and dealt with as a priority.

**In relation to the 2016 AER we can confirm the following:-**

- **No official complaints of an Environmental nature were received directly by the company.**
- **The EPA received one official complaint in relation to our facility during 2016 which was in relation to composting odours and this compared to five complaints in the previous reporting period**
- **The EPA complaints were received on the following dates:-**

**12/12/2016            Complaint was anonymous**

As a result of the complaints received by the Agency during 2015 Barna Recycling agreed to make improvements in our odour management systems. We engaged in a period of investigation with the assistance of Tobin Consulting Engineers to identify the market leading technology in this area and that process brought us to a company called Gicom in Holland. They agreed to custom build a tunnel / bunker system to meet our requirements similar to already successful builds they had completed in the UK and Ireland over the last few years.

During this reporting period works were successfully completed in relation to this project. The construction of the tunnels took place early in 2016 and then the technical equipment was installed during Q3 following by a period of commissioning and testing. The tunnels work in principle by putting fresh material in an enclosed bunker where temperatures are monitored by probes and the emissions are managed by a biofilter system. The tunnels were put into production during November 2016 and normal production volumes should be accepted for the duration of 2017. We trust the technology will be successful in ensuring odour management on site is to the highest possible standard.

We will work closely with the Agency during 2017 as the process works back up to its full capacity and monitor feedback or complaints if any are received on an individual basis. At the end of 2017 based on the number of complaints received we will have definite answer on how successful the changes have been.

For the moment we have done all we can to ensure the complaints received have resulted in an appropriate action from the company.

## **5.1 Environmental Incidents**

Barna Recycling are responsible under the Agencies new guidance in relation to Environmental Incidents to notify the Agency immediately or any serious occurrence on site or the exceedance of licence limits or pre-defined trigger levels as a result of environmental monitoring.

There were no other notifiable incidents during 2016.

Barna Recycling have completed the EPA's published AER template in relation to summarising complaints and incidents and this is attached as Appendix A of this report.

## **6. Nuisance and Emission Controls**

Nuisance inspections are carried out on a daily basis by the Facility Manager or a delegate. Results are logged and are available for review at all times. The purpose of these nuisance checks is to verify that there are no issues at the facility with regards to vermin, birds, flies, dust, housekeeping or odours.

We recently (during 2014) added waste stockpiles as a check on the daily nuisance processes. This was done with a view to ensuring stock was reviewed on a daily basis to maintain a focus on moving material off site as soon as possible and not allowing any materials to accumulate in excessive quantities and if they did they immediately came into focus.

Odour checks are also carried out as an individual assessment using the Agencies own guidance and these factor in all of our nearest sensitive receptors both upwind and downwind of the facility namely domestic dwellings or commercial premises. The method used is a 5 minute sniff test at these pre-determined locations on a daily basis.

We feel that given we have a composting facility on site it is necessary to carry out these checks this frequently. Results for odour checks during 2016 did not highlight any major issues in relation to



odour but it must also be recognised that the main source of odour, the Composting Facility was closed for the majority of 2016 and therefore this would be an expected result.

The other parameters such as dust on site we had no issues to report. During periods of dry weather on site there can always be a level of dust on site but we have misting equipment installed internally and water dosing pumps on our approach roads to control dust levels as required. As a results dust monitoring reports highlighted no dust issues on site for 2016. Daily nuisance checks are always valuable to highlight the need for having pumps on / off during any period and these daily checks will continue.

Vermin, birds and flies are monitored internally on a daily basis and again no major issues were evident during this reporting period. Barna Recycling partner with Ecolab is relation to the management of all types of vermin, birds and flies and have active controls on site for rats and mice as well as flies. There has been no need to put controls in place in relation to birds on site as all sheds are covered and the nuisance of birds has never been an issue. The control of rats and flies and carried out on contracts. The vermin (rats) are checked on a fortnightly basis by an external contractor and flies are sprayed (compost area only) up to five times per annum requested by our Compost Manager as required.

All Ecolab reports are on file and up to date to show their own monitoring results.

Due to insurance requirements as well as our own Waste Licence control of stockpiles has become a very important part of our business and that is why it now forms part of our nuisance checks. During 2016 there was a period where larger stocks of general waste were stored on site than would have been permitted and this was due to limited landfill availability and the exports for mechanically treated MSW also being unavailable for a period during the year. This was highlighted during an Agency inspection as well during the year. The stockpiling of waste is not a normal practice and this issue has since been resolved on site and a waste storage plan with maximum tonnages for the future has been agreed. The person carrying out the daily stock checks will be inspecting to the tonnages detailed in this plan.

In summary the nuisance checks still play a valuable role in the day to day monitoring of our facility and they are carried out properly to ensure we get the full benefit from them. In general the site is running well and can be considered on the basis of the daily results not to be causing any major nuisance to our neighbours or the environment in which we operate apart from the odour issue which has already been outlined elsewhere in this report.

## **7. Environmental Monitoring**

The required monitoring programme at the Barna Recycling Facility is set out in Schedule E of the Waste Licence. The reporting frequencies of reporting environmental monitoring data are indicated in Schedule C and D. The following monitoring was carried out for the reporting period:

### **Surface & Foul Water Monitoring (Quarterly)**

During 2016 reporting period sampling was carried out as follows:

- Surface & Foul Water Monitoring carried out by Complete Lab Solutions on 15/03/2016
- Surface & Foul Water Monitoring carried out by Complete Lab Solutions on 01/06/2016
- Surface & Foul Water Monitoring carried out by Complete Lab Solutions on 25/08/2016
- Surface & Foul Water Monitoring carried out by Complete Lab Solutions on 21/11/2016

### **Dust Monitoring (three times per year)**

During 2016 reporting period sampling was carried out as follows:

- Dust Monitoring was carried out by Complete Lab Solutions
- 3 times per annum May to September
- Round 1: Thursday 23/06/2016 to Friday 22/07/2016
- Round 2: Friday 22/07/2016 to Tuesday 23/08/2016
- Round 3: Tuesday 23/08/2016 to Friday 23/09/2016
- Dust pots are left on site by contractor for a period of approximately 30 days as per licence

### **Noise Monitoring (annually)**

During 2016 reporting period sampling was carried out as follows:

- Noise Monitoring was carried out by Complete Laboratory Solutions
- 2016 testing completed on 25/05/2016

All monitoring was carried out as per the requirements of our EPA waste licence.

Complete Laboratory Solutions were employed as part of the Environmental Management Team to carry out and report on all monitoring requirements for 2016. They won this business through a tender selection process which is run to identify the best possible company to partner with in relation to environmental monitoring. We have on file all the relevant names and qualifications held by the people carrying out the testing on our behalf.

The tender process is coordinated by the Facility Manager and he makes the decision on the awarding of the contracts. Barna Recycling recognise the importance of appointing the best possible contractor to ensure the environmental monitoring programme is carried out on schedule using the proper equipment / methods and that the reports supplied for submission to the EPA are of a high standard.

## 7.1. Summary of Monitoring Results

Environmental monitoring results are sent to the Agency within 10 days of quarter end for water monitoring and as soon as results are available for both dust and noise monitoring. All results are now uploaded via the Agencies online EDEN system which allows for the notification of any incidents or general issues in relation to the monitoring results.

A summary of the monitoring results for the current reporting period of 2015 have been transferred into the Agencies own AER template for monitoring results for all parameters (water, dust and noise) and these are included in that format as appendix A of this report.

I can confirm for summary purposes that there were no issues or incidents during this reporting period on any aspect of the monitoring results and for all parameters tested results were within either licence requirement or below agreed trigger levels. No investigations or corrective actions were required during 2016.

## 7.2. Compost Monitoring Results

The composting process has it's own requirements for monitoring on site and that involves emissions as well as on the compost product itself. In relation to the compost product as already outlined in the report the following records are available on request in relation to our composting:

- E-Coli Test Results
- F-Coli Test Results
- Salmonella Test Results
- AT4 Test Results
- Trace Element (Compost Quality) Test Results

The above are all requirements we must carry out for either the EPA and / or Department of Agriculture Fisheries and the Marine (DAFM). In addition to the above we also carry out tests for the following:

- Nutrition Levels (NPK) on Compost
- PAH / PHP Levels

Any issues with monitoring results for compost must immediately be notified to the Agency and the Department and those may result in a rejected batch of compost.

**During this reporting period there were no such incidents and all compost batches passed all tests which were submitted on all parameters.**

These results have been checked during site audits by both the Agency and the Department.

Most importantly in relation to monitoring our internal results show that the scrubber system on site is adequately doing it's job. We use a Kitagawa monitoring system to measure the levels of Ammonia, Hydrogen Sulphide and Mercaptans from the system and none of the monitoring results for 2016 highlighted an exceedance of the limits specified in our EPA licence. Therefore from the results recorded it can be assumed that the scrubber system on site is performing it's duty adequately.

### **7.3. Bio Aerosol Air Monitoring**

As part of the Agencies new air monitoring requirements Barna Recycling carried out Bio Aerosol monitoring during 2016 to meet these requirements.

This monitoring was carried out by Anua Environmental Consultants who are part of the Board Na Mona group on the 20<sup>th</sup> June 2016.

This monitoring was carried out at 3 locations on site taking note to ensure that both upwind and downwind readings were taken. Total Bacteria was detected at all monitoring locations with average concentrations ranging from >416cfu/m<sup>3</sup> upwind, >424cfu/m<sup>3</sup> downwind location 1 and >253cfu/m<sup>3</sup> at downwind location 2. Aspergillus fumigatus was detected at all locations ranging from >212cfu/m<sup>3</sup> upwind, >212cfu/m<sup>3</sup> downwind location 1 and >143.5cfu/m<sup>3</sup> at downwind location 2.

The results reported for bio aerosols highlighted no issues at the facility in relation to the emission of bio aerosols as a result of our activities and readings were normal. There were no actions highlighted within the report and no recommendations for improvement.

### **7.4. Monitoring Locations**

A map of the monitoring locations at the site is attached as appendix D to this report as required by the Agency.

### **8.0. Foul Water Discharge**

As required by schedule G of our EPA waste licence this section details the foul water emission levels for the current reporting period. Readings of foul water emissions are taken on a daily basis by the Facility Manager and results are logged and kept on file. Details of the volumes of surface water discharged during the reporting period are below.

**Total wastewater discharged via FW1 for 2016 (approximately): 596,166 litres**

These results are available for review on request and are recorded on a daily basis.

## 9. Resource and Energy Consumption Summary

The main resources consumed at the facility during the reporting period were electricity, diesel fuel and water. A summary of the significant resources consumed are tabulated below with a summary of the principal resource consumption.

**Table 9.1: Principal Areas of Resource Consumption**

| Area of Use     | Purpose   | Principal Resource Consumed            |
|-----------------|---|--|
| Site Plant      | Moving and processing of wastes and our fleet of on the road vehicles used for the collection and disposal of waste | Diesel, hydraulic oils                 |
| Site Operations | Road sweeper for maintenance of road surfaces and wash bay hose for washing bins, trucks                            | Water                                  |
| Odour Controls  | Used on an as required basis and pumped into the scrubbers within the compost building                              | Composting Scrubber System & Chemicals |
| Offices         | Administration & Management of the facility usage of electricity for computers, phones etc                          | Electricity                            |

**Table 9.2: Usage of Energy and Resources, 1<sup>st</sup> January 2013 – 31<sup>st</sup> December 2015**

| Resource                | Consumption for Reporting Period  |
|-------------------------|---|
| Odour Control Chemicals | 2012: Approximately 60litres<br>2013: Approximately 4,500 litres<br>2014: Approximately 5,200 litres<br>2015: Approximately 11,250 litres<br>2016: Approximately 14,700 litres  |
| Electricity             | 2016: 1,445,628 (KW)<br>2015: 2,006,951 (KW)<br>2014: 2,204,366 (KW)<br>2013: 1,874,775 (KW)<br>2012: 1,695,879 (KW)<br>2011: 1,590,165 (KW)<br>2010: 1,327,372 (KW)<br>2009: 1,392,552 (KW)<br>2008: 1,304,972 (KW)<br>2007: 817,982 (KW)<br>2006: 71,689 (KW)<br>2005: 117,174 (KW)<br>2004: 120,900 (KW) |
| Diesel Fuel             | 1,097,940 (litres approx) including our fleet of on the road vehicles and on site plant / equipment   |
| Hydraulic Oils          | 15,000 (litres approx)  |

## **10. Tank, Pipeline and Bund Testing and Inspection Report**

The underground drainage pipeline and tank network was surveyed during reporting period (2015) as per the requirement of our licence

The report concluded that the site drainage and tanks were overall in a good condition and no immediate actions were necessary throughout the site. Some minor intrusions on pipelines were found but no cracks or leaks and they have not recommended any immediate actions are required as a result of this survey.

Full copies of the report and DVD are on file and available from the Facility Manager on site.

A new survey will be carried out during 2018 as the requirement within our licence is to assess this every 3 years.

### **Bund Test**

During 2014 we did carry out a bund test on the one bund we have on site and there were no issues highlighted as a result of this inspection. A full copy of this report is also on file and available for review from the Facility Manager. No corrective actions were necessary.

Re-testing of the bunds will take place in the new reporting period of 2017.

## **11. Financial Provision for the Facility**

Barna Recycling are required by our licence to have an up to date financial provision in place which covers the cost of emergency clean up in the event of an environmental incident or restoration and aftercare work as a result of the company closing.

Financial provision for the company is outlined in our Environmental Liabilities Risk Assessment (ELRA) report combined with our Closure Restoration Aftercare Management Plan (CRAMP) which offers two separate calculations that combine to make up our Financial Provision.

These documents are produced following the guidance documents issued by the Agency and are submitted on an annual basis for approval prior to the financial bonds being put in place.

The Financial Provision for 2014 was:- €1,202,202.12

The Financial Provision for 2015 was:- €1,559,382.90

The Financial Provision for 2016 / 17 is agreed as:- €1,566,670.00

This document is due for review again later in 2017.

The full documents for ELRA / CRAMP / FP are available on request from Barna Recycling but the amounts above are already approved by the Agency and the new bond will be put in place in the next couple of months before the existing one expires.

For the 2016 reporting period we have completed the Agencies own AER template in relation to summarising the ELRA and Financial Provision data and this is included as part of appendix A of this report.

## **12. Management Structure at the Facility**

An up to date company organisation chart is included in the company EMS system and a current copy is attached to this report as an appendix as required by our licence.

There were a couple of significant changes during 2016 with our long serving Operations Manager leaving his post and that position has since been filled. There was also a change in the Transport Manager position with an experienced man now in charge of this department significant changes and improvements for this area are planned during the new reporting period. We also made a change in the Human Resources Department with a new Manager taking up the lead in this department during this reporting period. Finally we employed a new Weighbridge Manager who will be in charge of coordinating the companies skip business and ensuring the weighbridge associated activities are carried to the highest standards.

The Management Team all report directly into our Managing Director and the General Manager position which was in place during 2014 and 2015 is no longer required within the structure.

In relation to the Agencies main point of contact the Facility Manager (Campbell Finnie) remains the main point of contact for the Facility.

The Management Structure is outlined fully in Appendix E of the Report.

Any major changes in the Management Structure at the site will be advised to the agency immediately.

## **13. Public Information / Site Visits**

All official records kept by Barna Recycling under the terms of our EPA licence or in relation to any of our activities from either the collection service or at the transfer station are available to any member of the public on request from our offices.

The Facility Manager is the contact person for any requests for information in relation to company records. Campbell Finnie is the current Facility Manager and can be contacted via the main office.

All reasonable requests by the public or any other interested party for information will be answered as quickly as possible.

Barna Recycling also operate an ‘open door policy’ in relation to our site and all customers, partners, members of the public or any interested party are welcome to visit our facility by arrangement to tour the facilities, carry out inspections or get answers to any issues they may have in relation to our operations / activities. This is available to small groups and adults only and must be organised in advance via the Facility Manager.

#### **14. Environmental Management Plan & Targets / Objectives**

The setting of targets and objectives for the company is very important. Not only is it a requirement of our licence but it ensures the site and the company are always working towards continuous improvement in all areas of the business. The targets set should be ideally out with the scope of our licence.

The company recognise it is not only important to set these targets but to ensure during the reporting period it successfully works towards achieving the targets. As a result we produce a new Schedule of Targets and Objectives as part of our overall EMP and this is issued and re-defined on an annual basis to include both new targets which are relevant and also update on the success or otherwise of achieving the targets set for the previous reporting period.

It is the purpose of the Environmental Management Plan (EMP) to set out the procedures necessary to meet the licence conditions. Specifically, the EMP is designed to:

- 1) Detail the methods by which the objectives and targets will be achieved in the coming year and the designation of responsibility for targets
- 2) Any other items required by written guidance issued by the agency

Barna Recycling have produced a new EMP for 2017 which is a combined document along with our Schedule of Targets and Objectives. These updates are being submitted to the EPA alongside this Annual Environmental Report. The EMP details clearly the progress Barna Recycling has made in all areas during this reporting period and outlines the major tasks ahead during the new reporting period.

For full details of the EMP and Schedule of Targets & Objectives refer to appendix C.

#### **15. AER / PRTR Emissions Data for 2016**

The EPA requires Barna Recycling to complete an annual return called an AER / PRTR Emissions Data report where we declare both emissions data from our facility for the reporting period and declare tonnages of waste received at our facility. The tonnage data is already included in full in section two of this report.

This report is to be included in the company's full AER for the reporting period starting from 2008 onwards and therefore a full copy of the 2016 AER / PRTR Emissions Report Database is included in this report as appendix B.

#### **16. Full PDF AER**

The EPA's new reporting requirements introduced for 2008 have been designed to ensure public access to information is improved and therefore a full copy of this AER in PDF format will be updated to the Agency website as soon as the full report including the AER / PRTR is included which will be before end March 2017 as required by the Agency.

Access to the PDF version of the full report will then be available via the EPA website or on request directly to Barna Recycling.



## Final Comments

This year's Annual Environmental Report has been compiled in very similar format as previous years to keep it consistent and we have also integrated the Agencies new Excel templates into the report.

All figures and updates quoted are specifically for the 2016 reporting period unless otherwise stated in the particular section of the report. All information listed in schedule G of our EPA Waste Licence WL106-2 has been included somewhere in this report.

The intention of this report is to give the reader a detailed outline of the activities carried out by Barna Recycling during 2016 in all areas of the business. We believe the report in its current format achieves this successfully. However Barna Recycling welcomes constructive feedback on this report from any source and will endeavour to make any changes requested by customers, the Agency or members of the public in order to improve the reports for future submissions.

The report has been compiled internally by Barna Recycling.

Updates on any of Barna Recycling activities are available at anytime during the year from our main offices in Carrowbrowne. Contact should be made with the Facility Manager.

A full copy of this report will also be made available on request to any person who requests it and as stated above will be made available in full in a downloadable format from the Agency website before end of March 2017.

## Appendices

The following documents have been specifically requested by the Agency to be included in the Annual Environmental Report and are attached to this document and form part of the final report:

- Appendix A:** AER Summary Report in EPA's own Excel Format  
(this includes results and information in relation to Air, Water, Bunds, ELRA, EMP, Noise, Resource / Energy, Complaints / Incidents and Waste Quantities)
- Appendix B:** AER / PRTR Workbook for 2016
- Appendix C:** EMP & Schedule of Targets and Objectives 2016 / 2017
- Appendix D:** Map of site monitoring locations
- Appendix E:** Current Company Management Structure (March 2017)

## Next Submission

The next submission of this report is due on 31<sup>st</sup> March 2018.

## Contacts

Any issues, questions or requests for additional information with regards to this report can be requested from Campbell Finnie (Facility Manager).



**Appendix A:**

AER Summary Report in EPA's own Excel Format

(this includes results and information in relation to Air, Water, Bunds, ELRA, EMP. Noise, Resource / Energy, Complaints / Incidents and Waste Quantities)

| Facility Information Summary   |   |
|--|---|
| AER Reporting Year   | 2016  |
| Licence Register Number  | W0106-02  |
| Name of site   | Barna Waste   |
| Site Location  | Carrowbrowne, Headford Road, Galway   |
| NACE Code  | 3821  |
| Class/Classes of Activity  | D13, D14, D15, R3, R4, R5, R11, R12 and R13   |
| National Grid Reference (6E, 6 N)  | 53.3301, -9.01825   |
| A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental performance which was measured during the reporting year <b>and an overview of compliance with your licence listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.</b> | <p>The principal activities carried out on site are D13, D14, D15, R3, R4, R5, R11, R12 and R13. Tonnage of waste received in 2016 was 106,174.1 which was down approx. 3% on 2015 figures of 109,145.63 tonnes. <b>88%</b> of waste received was sent for recycling / recovery in 2016 which compares to 76% in 2015. The facility maintained certification to ISO 14001, the international standard for Environmental Management Systems. There was <b>1</b> complaint during the year in relation to odour for which a program of improvement is currently being implemented at the EPA's approval and therefore is ongoing. In relation to environmental monitoring there were no issues in 2016.</p> |

**Declaration:**

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

|   |            |
|---|------------|
| Campbell Finnie   | 30/03/2017 |
| Signature   | Date       |
| Group/Facility manager                                    |            |
| (or nominated, suitably qualified and experienced deputy) |            |

**AIR-summary template** Lic No: W0106-02 Year 2016

Answer all questions and complete all tables where relevant

1 Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If **you do not have** licenced emissions and **do not complete a solvent management plan** (table A4 and A5) you do not need to complete the tables

|    |                        |
|----|------------------------|
| No | Additional information |
|----|------------------------|

**Periodic/Non-Continuous Monitoring**

2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below

3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? [Basic air monitoring checklist](#) [AGN2](#)

|    |  |
|----|--|
| No |  |
| No |  |

**Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)**

| Emission reference no: | Parameter/ Substance | Frequency of Monitoring | ELV in licence or any revision thereof | Licence Compliance criteria | Measured value | Unit of measurement | Compliant with licence limit | Method of analysis | Annual mass load (kg) | Comments - reason for change in % mass load from previous year if applicable |
|------------------------|----------------------|-------------------------|--|-----------------------------|----------------|---------------------|------------------------------|--------------------|-----------------------|--|
|                        | SELECT               |                         |  | SELECT                      |                | SELECT              | SELECT                       | SELECT             |                       |  |
|                        | SELECT               |                         |  | SELECT                      |                | SELECT              | SELECT                       | SELECT             |                       |  |
|                        | SELECT               |                         |  | SELECT                      |                | SELECT              | SELECT                       | SELECT             |                       |  |
|                        | SELECT               |                         |  | SELECT                      |                | SELECT              | SELECT                       | SELECT             |                       |  |

Note 1: Volumetric flow shall be included as a reportable parameter

|                              |                  |            |
|------------------------------|------------------|------------|
| <b>AIR-summary template</b>  | Lic No: W0106-02 | Year: 2016 |
| <b>Continuous Monitoring</b> |                  |            |

|  |        |  |
|--|--------|--|
| <p>4 Does your site carry out continuous air emissions monitoring?<br/>If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)</p> | No     |  |
| <p>5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below</p>  | SELECT |  |
| <p>6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?</p>  | SELECT |  |
| <p>7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below</p>   | SELECT |  |

**Table A2: Summary of average emissions -continuous monitoring**

| Emission reference no: | Parameter/ Substance | ELV in licence or any revision thereof | Averaging Period | Compliance Criteria | Units of measurement | Annual Emission | Annual maximum | Monitoring Equipment downtime (hours) | Number of ELV exceedences in current reporting year | Comments |
|------------------------|----------------------|--|------------------|---------------------|----------------------|-----------------|----------------|---------------------------------------|---|----------|
|                        | SELECT               |  |                  | SELECT              | SELECT               |                 |                |                                       |   |          |
|                        | SELECT               |  |                  |                     | SELECT               |                 |                |                                       |   |          |
|                        | SELECT               |  |                  |                     | SELECT               |                 |                |                                       |   |          |
|                        | SELECT               |  |                  |                     | SELECT               |                 |                |                                       |   |          |
|                        | SELECT               |  |                  |                     | SELECT               |                 |                |                                       |   |          |

note 1: Volumetric flow shall be included as a reportable parameter.

**Table A3: Abatement system bypass reporting table**

[Bypass protocol](#)

| Date* | Duration** (hours) | Location | Reason for bypass | Impact magnitude | Corrective action |
|-------|--------------------|----------|-------------------|------------------|-------------------|
|       |                    |          |                   |                  |                   |
|       |                    |          |                   |                  |                   |
|       |                    |          |                   |                  |                   |
|       |                    |          |                   |                  |                   |
|       |                    |          |                   |                  |                   |
|       |                    |          |                   |                  |                   |

\* this should include all dates that an abatement system bypass occurred

\*\* an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

|  |                                  |  |  |   |                               |   |                                   |                                       |
|--|----------------------------------|--|--|---|-------------------------------|---|-----------------------------------|---------------------------------------|
| <b>AIR-summary template</b>  |                                  | Lic No: W0106-02   | Year                                     | 2016  |                               |   |                                   |                                       |
| <b>Solvent use and management on site</b>  |                                  |  |  |   |                               |   |                                   |                                       |
| 8 Do you have a total Emission Limit Value of direct and fugitive emissions on site? if yes please fill out tables A4 and A5 |                                  |  |  | No  |                               |   |                                   |                                       |
| <b>Table A4: Solvent Management Plan Summary Total VOC Emission limit value</b>  |                                  | <a href="#">Solvent regulations</a> Please refer to linked solvent regulations to complete table 5 and 6 |  |   |                               |   |                                   |                                       |
| Reporting year   | Total solvent input on site (kg) | Total VOC emissions to Air from entire site (direct and fugitive)  | Total VOC emissions as %of solvent input | Compliance  |                               |   |                                   |                                       |
|  |                                  |  |  | Total Emission Limit Value (ELV) in licence or any revision thereof |                               |   |                                   |                                       |
|  |                                  |  |  | SELECT  |                               |   |                                   |                                       |
|  |                                  |  |  | SELECT  |                               |   |                                   |                                       |
| <b>Table A5: Solvent Mass Balance summary</b>  |                                  |  |  |   |                               |   |                                   |                                       |
|  | (I) Inputs (kg)                  | (O) Outputs (kg)   |  |   |                               |   |                                   |                                       |
| Solvent  | (I) Inputs (kg)                  | Organic solvent emission in waste  | Solvents lost in water (kg)              | Collected waste solvent (kg)  | Fugitive Organic Solvent (kg) | Solvent released in other ways e.g. by- | Solvents destroyed onsite through | Total emission of Solvent to air (kg) |
|  |                                  |  |  |   |                               |   |                                   |                                       |
|  |                                  |  |  |   |                               |   |                                   |                                       |
|  |                                  |  |  |   |                               |   |                                   |                                       |
|  |                                  |  |  |   |                               |   |                                   |                                       |
|  |                                  |  |  |   |                               |   |                                   |                                       |
|  |                                  |  |  |   |                               |   |                                   | Total                                 |

**AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)**

Lic No:

W0106-02

Year

2016

Additional information

1 Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions.  
 If you do not have licensed emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections

|     |   |
|-----|---|
| Yes | There is 1 No. SW discharge point, SD1 and 2 No. other SW sampling points, SW1 - upstream and SW2 - downstream of the discharge point. There is 1 No. wastewater monitoring location prior to where it discharges to sewer, FW1 |
| Yes | Visual checks of the stream are carried out on a daily basis to check for visual evidence of contamination, dead plants, dead fish etc and these visual checks also showed no sign of any contamination in the stream water.    |

2 Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections

**Table W1 Storm water monitoring**

| Location reference | Location relative to site activities | PRTR Parameter         | Licensed Parameter | Monitoring date | ELV or trigger level in licence or any revision thereof* | Licence Compliance criteria | Measured value | Unit of measurement | Compliant with licence | Comments |
|--------------------|--------------------------------------|------------------------|--------------------|-----------------|--|-----------------------------|----------------|---------------------|------------------------|----------|
| SW1                | upstream                             | Fats, Oils and Greases |                    | Q1 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SW1                | upstream                             | BOD                    |                    | Q1 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |
| SW1                | upstream                             | Suspended Solids       |                    | Q1 '16          | N/A  | N/A                         | 2              | mg/L                | yes                    |          |
| SW1                | upstream                             | Ammonia (as N)         |                    | Q1 '16          | N/A  | N/A                         | <0.01          | mg/L                | yes                    |          |
| SW1                | upstream                             | Mineral oils           |                    | Q1 '16          | N/A  | N/A                         | 0.115          | mg/L                | yes                    |          |
| SW1                | upstream                             | pH                     |                    | Q1 '16          | N/A  | N/A                         | 6.9            | pH units            | yes                    |          |
| SW1                | upstream                             | Fats, Oils and Greases |                    | Q2 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SW1                | upstream                             | BOD                    |                    | Q2 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |
| SW1                | upstream                             | Suspended Solids       |                    | Q2 '16          | N/A  | N/A                         | <2             | mg/L                | yes                    |          |
| SW1                | upstream                             | Ammonia (as N)         |                    | Q2 '16          | N/A  | N/A                         | 0.154          | mg/L                | yes                    |          |
| SW1                | upstream                             | Mineral oils           |                    | Q1 '16          | N/A  | N/A                         | 0.065          | mg/L                | yes                    |          |
| SW1                | upstream                             | pH                     |                    | Q2 '16          | N/A  | N/A                         | 7.3            | pH units            | yes                    |          |
| SW1                | upstream                             | Fats, Oils and Greases |                    | Q3 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SW1                | upstream                             | BOD                    |                    | Q3 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |
| SW1                | upstream                             | Suspended Solids       |                    | Q3 '16          | N/A  | N/A                         | <2             | mg/L                | yes                    |          |
| SW1                | upstream                             | Ammonia (as N)         |                    | Q3 '16          | N/A  | N/A                         | 0.051          | mg/L                | yes                    |          |
| SW1                | upstream                             | Mineral oils           |                    | Q3 '16          | N/A  | N/A                         | 0.065          | µg/L                | yes                    |          |
| SW1                | upstream                             | pH                     |                    | Q3 '16          | N/A  | N/A                         | 7              | pH units            | yes                    |          |
| SW1                | upstream                             | Fats, Oils and Greases |                    | Q4 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SW1                | upstream                             | BOD                    |                    | Q4 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |
| SW1                | upstream                             | Suspended Solids       |                    | Q4 '16          | N/A  | N/A                         | 5              | mg/L                | yes                    |          |
| SW1                | upstream                             | Ammonia (as N)         |                    | Q4 '16          | N/A  | N/A                         | 0.01           | mg/L                | yes                    |          |
| SW1                | upstream                             | Mineral oils           |                    | Q4 '16          | N/A  | N/A                         | 0.065          | µg/L                | yes                    |          |
| SW1                | upstream                             | pH                     |                    | Q4 '16          | N/A  | N/A                         | 7              | pH units            | yes                    |          |
| SW2                | downstream                           | Fats, Oils and Greases |                    | Q1 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SW2                | downstream                           | BOD                    |                    | Q1 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |
| SW2                | downstream                           | Suspended Solids       |                    | Q1 '16          | N/A  | N/A                         | <2             | mg/L                | yes                    |          |
| SW2                | downstream                           | Ammonia (as N)         |                    | Q1 '16          | N/A  | N/A                         | 0.014          | mg/L                | yes                    |          |
| SW2                | downstream                           | Mineral oils           |                    | Q1 '16          | N/A  | N/A                         | 0.114          | mg/L                | yes                    |          |
| SW2                | downstream                           | pH                     |                    | Q1 '16          | N/A  | N/A                         | 7.2            | pH units            | yes                    |          |
| SW2                | downstream                           | Fats, Oils and Greases |                    | Q2 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SW2                | downstream                           | BOD                    |                    | Q2 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |
| SW2                | downstream                           | Suspended Solids       |                    | Q2 '16          | N/A  | N/A                         | 19             | mg/L                | yes                    |          |
| SW2                | downstream                           | Ammonia (as N)         |                    | Q2 '16          | N/A  | N/A                         | 0.128          | mg/L                | yes                    |          |
| SW2                | downstream                           | Mineral oils           |                    | Q2 '16          | N/A  | N/A                         | 0.065          | mg/L                | yes                    |          |
| SW2                | downstream                           | pH                     |                    | Q2 '16          | N/A  | N/A                         | 7.3            | pH units            | yes                    |          |
| SW2                | downstream                           | Fats, Oils and Greases |                    | Q3 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SW2                | downstream                           | BOD                    |                    | Q3 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |
| SW2                | downstream                           | Suspended Solids       |                    | Q3 '16          | N/A  | N/A                         | <2             | mg/L                | yes                    |          |
| SW2                | downstream                           | Ammonia (as N)         |                    | Q3 '16          | N/A  | N/A                         | 0.055          | mg/L                | yes                    |          |
| SW2                | downstream                           | Mineral oils           |                    | Q3 '16          | N/A  | N/A                         | 0.065          | µg/L                | yes                    |          |
| SW2                | downstream                           | pH                     |                    | Q3 '16          | N/A  | N/A                         | 7              | pH units            | yes                    |          |
| SW2                | downstream                           | Fats, Oils and Greases |                    | Q4 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SW2                | downstream                           | BOD                    |                    | Q4 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |
| SW2                | downstream                           | Suspended Solids       |                    | Q4 '16          | N/A  | N/A                         | 7              | mg/L                | yes                    |          |
| SW2                | downstream                           | Ammonia (as N)         |                    | Q4 '16          | N/A  | N/A                         | 0.053          | mg/L                | yes                    |          |
| SW2                | downstream                           | Mineral oils           |                    | Q4 '16          | N/A  | N/A                         | 0.065          | µg/L                | yes                    |          |
| SW2                | downstream                           | pH                     |                    | Q4 '16          | N/A  | N/A                         | 7.4            | pH units            | yes                    |          |
| SD1                | onsite                               | Fats, Oils and Greases |                    | Q1 '16          | N/A  | N/A                         | <5             | mg/L                | yes                    |          |
| SD1                | onsite                               | BOD                    |                    | Q1 '16          | N/A  | N/A                         | <1             | mg/L                | yes                    |          |

| AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) |        |  |                        |        |     |     |       |          |     | Lic No: | W0106-02 | Year | 2016 |
|---|--------|--|------------------------|--------|-----|-----|-------|----------|-----|---------|----------|------|------|
| SD1   | onsite |  | Suspended Solids       | Q1 '16 | N/A | N/A | <5    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Ammonia (as N)         | Q1 '16 | N/A | N/A | <0.01 | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Mineral oils           | Q1 '16 | N/A | N/A | 0.13  | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | pH                     | Q1 '16 | N/A | N/A | 6.9   | pH units | yes |         |          |      |      |
| SD1   | onsite |  | Fats, Oils and Greases | Q2 '16 | N/A | N/A | <5    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | BOD                    | Q2 '16 | N/A | N/A | <1    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Suspended Solids       | Q2 '16 | N/A | N/A | 10    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Ammonia (as N)         | Q2 '16 | N/A | N/A | 0.121 | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Mineral oils           | Q2 '16 | N/A | N/A | 0.065 | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | pH                     | Q2 '16 | N/A | N/A | 7.3   | pH units | yes |         |          |      |      |
| SD1   | onsite |  | Fats, Oils and Greases | Q3 '16 | N/A | N/A | <5    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | BOD                    | Q3 '16 | N/A | N/A | <1    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Suspended Solids       | Q3 '16 | N/A | N/A | <2    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Ammonia (as N)         | Q3 '16 | N/A | N/A | 0.115 | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Mineral oils           | Q3 '16 | N/A | N/A | 0.065 | µg/L     | yes |         |          |      |      |
| SD1   | onsite |  | pH                     | Q3 '16 | N/A | N/A | 7.2   | pH units | yes |         |          |      |      |
| SD1   | onsite |  | Fats, Oils and Grease  | Q4 '16 | N/A | N/A | <5    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | BOD                    | Q4 '16 | N/A | N/A | <1    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Suspended Solids       | Q4 '16 | N/A | N/A | 14    | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Ammonia (as N)         | Q4 '16 | N/A | N/A | 0.01  | mg/L     | yes |         |          |      |      |
| SD1   | onsite |  | Mineral oils           | Q4 '16 | N/A | N/A | 0.065 | µg/L     | yes |         |          |      |      |
| SD1   | onsite |  | pH                     | Q4 '16 | N/A | N/A | 7.3   | pH units | yes |         |          |      |      |

\*trigger values may be agreed by the Agency outside of licence conditions

**Table W2 Visual inspections-Please only enter details where contamination was observed.**

| Location Reference | Date of inspection | Description of contamination | Source of contamination | Corrective action | Comments |
|--------------------|--------------------|------------------------------|-------------------------|-------------------|----------|
|                    |                    |                              | SELECT                  |                   |          |
|                    |                    |                              | SELECT                  |                   |          |

**Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous)**

3 Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below

No

Additional information

Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box

External/Internal Assessment of Lab Quality checklist results checklist

No

**Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)**

| Emission reference no: | Emission released to | Parameter/ Substance <sup>Note 1</sup> | Type of sample | Frequency of monitoring             | Averaging period | ELV or trigger values in licence or any revision thereof <sup>Note 2</sup> | License Compliance criteria                   | Measured value | Unit of measurement | Compliant with licence | Method of analysis      | Procedural reference source | Procedural reference standard number | Annual mass load (kg) | Comments                          |
|------------------------|----------------------|--|----------------|-------------------------------------|------------------|--|---|----------------|---------------------|------------------------|-------------------------|-----------------------------|--------------------------------------|-----------------------|-----------------------------------|
| FW1                    | Wastewater/Sewer     | Fats, Oils and Greases                 | discrete       | Its are an average of the 4 samples |                  | 100  | All results < 1.2 x ELV                       | <5             | mg/L                | yes                    | Other (please describe) | ISO                         | 17025                                | 3.919                 | ISO 17025 - Non-Test Method       |
| FW1                    | Wastewater/Sewer     | COD                                    | discrete       | Its are an average of the 4 samples |                  | 1000   | All results < 1.2 x ELV                       | 74.75          | mg/L                | yes                    | Other (please describe) | ISO                         | 17025                                | 58.583                | ISO 17025 - Non-Test Method       |
| FW1                    | Wastewater/Sewer     | BOD                                    | discrete       | Its are an average of the 4 samples |                  | 350  | All results < 1.2 x ELV                       | 2              | mg/L                | yes                    | Other (please describe) | ISO                         | 17025                                | 1.567                 | ISO 17025 - Non-Test Method       |
| FW1                    | Wastewater/Sewer     | Suspended Solids                       | discrete       | Its are an average of the 4 samples |                  | 400  | All results < 1.2 x ELV                       | 47.75          | mg/L                | yes                    | Other (please describe) | ISO                         | 17025                                | 37.423                | ISO 17025 - Non-Test Method       |
| FW1                    | Wastewater/Sewer     | Ammonia (as N)                         | discrete       | Its are an average of the 4 samples |                  | N/A  | All results < 1.2 x ELV                       | 0.15           | mg/L                | yes                    | Other (please describe) | ISO                         | 17025                                | 0.117                 | Standard Method Based on Sulphate |
| FW1                    | Wastewater/Sewer     | Sulphate                               | discrete       | Its are an average of the 4 samples |                  | 400  | All results < 1.2 x ELV                       | 12.06          | mg/L                | yes                    | Other (please describe) | ISO                         | 17025                                | 9.45                  | Standard Method Based on Sulphate |
| FW1                    | Wastewater/Sewer     | volumetric flow                        | composite      | Continuous                          |                  | 7  | NO flow value shall exceed the specific limit | 1.633          | m3/day              | yes                    | Other (please describe) |                             |                                      |                       | Flow meter                        |

Note 1: Volumetric flow shall be included as a reportable parameter

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards



**Continuous monitoring**

5 Does your site carry out continuous emissions to water/sewer monitoring?  Yes  No Additional Information  
Volumetric flow only

If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below  No  Yes

7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?  Yes  No

8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below  No  Yes

**Table W4: Summary of average emissions -continuous monitoring**

| Emission reference no: | Emission released to | Parameter/ Substance | ELV or trigger values in licence or any revision thereof | Averaging Period | Compliance Criteria                            | Units of measurement | Annual Emission for current reporting year (kg) | % change +/- from previous reporting year | Monitoring Equipment downtime (hours) | Number of ELV exceedences in reporting year | Comments |
|------------------------|----------------------|----------------------|--|------------------|--|----------------------|---|---|---------------------------------------|---|----------|
| FW1                    | Wastewater/Sewer     | volumetric flow      | 7  | SELECT           | No flow value shall exceed the specific limit. | m3/day               | 596166  | -24%                                      | 0                                     | 0   |          |
|                        | SELECT               | SELECT               |  | SELECT           | SELECT   | SELECT               |   |   |                                       |   |          |

note 1: Volumetric flow shall be included as a reportable parameter.

**Table W5: Abatement system bypass reporting table**

| Date | Duration (hours) | Location | Resultant emissions | Reason for bypass | Corrective action* | Was a report submitted to the EPA? | When was this report submitted? |
|------|------------------|----------|---------------------|-------------------|--------------------|------------------------------------|---------------------------------|
|      |                  |          |                     |                   |                    | SELECT                             |                                 |
|      |                  |          |                     |                   |                    |                                    |                                 |

\*Measures taken or proposed to reduce or limit bypass frequency

Bund testing dropdown menu click to see options

Additional information

- Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing all new bunds and containment structures on site, in addition to all bunds which failed the integrity test-all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period (mobile bunds and chemstore included)
- 1 Please provide integrity testing frequency period
  - 2 Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)
  - 3 How many bunds are on site?
  - 4 How many of these bunds have been tested within the required test schedule?
  - 5 How many mobile bunds are on site?
  - 6 Are the mobile bunds included in the bund test schedule?
  - 7 How many of these mobile bunds have been tested within the required test schedule?
  - 8 How many sumps on site are included in the integrity test schedule?
  - 9 How many of these sumps are integrity tested within the test schedule?
- Please list any sump integrity failures in table B1**
- 11 Do all sumps and chambers have high level liquid alarms?
  - 12 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?
  - 13 Is the Fire Water Retention Pond included in your integrity test programme?

|         |  |
|---------|--|
| Yes     | 3.12.5 requires 3 yearly test of all underground pipes and tanks and bunds |
| 3 years |  |
| Yes     |  |
| 1       |  |
| 1       |  |
| No      | N/A  |
|         |  |
|         |  |
| SELECT  |  |
| SELECT  |  |
| SELECT  |  |

Table B1: Summary details of bund /containment structure integrity test

| Bund/Containment structure ID | Type                   | Specify Other type | Product containment | Actual capacity     | Capacity required* | Type of integrity test | Other test type | Test date  | Integrity reports maintained on site? | Results of test | Integrity test failure explanation <50 words | Corrective action taken | Scheduled date for retest | Results of retest (if in current reporting year) |
|-------------------------------|------------------------|--------------------|---------------------|---------------------|--------------------|------------------------|-----------------|------------|---------------------------------------|-----------------|--|-------------------------|---------------------------|--|
| Shed Diesel / Oil Bund        | other (please specify) | Steel              | Diesel / Oil        | 4,284m <sup>3</sup> | 3.3m <sup>3</sup>  | Other (please specify) | Hydrostatic     | 28.01.2015 | Yes                                   | Pass            |  | SELECT                  |                           |  |
|                               | SELECT                 |                    |                     |                     |                    | SELECT                 |                 |            | SELECT                                | SELECT          |  | SELECT                  |                           |  |

- \* Capacity required should comply with 25% or 110% containment rule as detailed in your licence  
 Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance?  
 15 Are channels/transfer systems to remote containment systems tested?  
 16 Are channels/transfer systems compliant in both integrity and available volume?

[bundling and storage guidelines](#)

|            |  |
|------------|--|
| Commentary |  |
| Yes        |  |
| Yes        |  |
| Yes        |  |

Pipeline/underground structure testing

- Are you required by your licence to undertake integrity testing\* on underground structures e.g. pipelines or sumps etc? If yes please fill out table 2 below listing all underground structures and pipelines on site which failed the integrity test and all which have not been tested within the integrity test period as specified
- 1 Please provide integrity testing frequency period
- \*please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

|         |  |
|---------|--|
| Yes     |  |
| 3 years |  |

Table B2: Summary details of pipeline/underground structures integrity test

| Structure ID                 | Type system | Material of construction: | Does this structure have Secondary containment? | Type of secondary containment | Type integrity testing | Integrity reports maintained on site? | Results of test | Integrity test failure explanation <50 words | Corrective action taken | Scheduled date for retest | Results of retest (if in current reporting year) |
|------------------------------|-------------|---------------------------|---|-------------------------------|------------------------|---------------------------------------|-----------------|--|-------------------------|---------------------------|--|
| Section 1 (MH P2 - MH P3)    | Foul        | pvc                       | No  | SELECT                        | CCTV                   | Yes                                   | Pass            |  |                         |                           | SELECT   |
| Section 2 (MH P3 - End Line) | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |
| Section 3 (MH P4 - End Line) | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |
| Section 4 (MH P4 - MH P3)    | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |
| Section 5 (MH P2 - MH P5)    | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |
| Section 6 (MH P2 - MH P1 Ta) | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |
| Section 7 (MH P6 - MH P1 Ta) | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |
| Section 8 (MH P6 - MH P7)    | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |
| Section 9 (MH P8 - MH P9)    | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |
| Section 10 (MH P8 - End Lin) | Foul        | pvc                       | No  |                               | CCTV                   | Yes                                   | Pass            |  |                         |                           |  |

Please use commentary for additional details not answered by tables/ questions above

|    |  |        | Comments  |
|----|--|--------|---|
| 1  | Are you required to carry out groundwater monitoring as part of your licence requirements?   | no     | Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretation as an additional section in this AER<br><br><br><br><br><br><br><br><br><br><br><br><br><br><span style="color: red;">Please enter interpretation of data here</span> |
| 2  | Are you required to carry out soil monitoring as part of your licence requirements?  | no     |   |
| 3  | Do you extract groundwater for use on site? If yes please specify use in comment section   | no     |   |
| 4  | Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below. <a href="#">Groundwater monitoring template</a> | SELECT |   |
| 5  | Is the contamination related to operations at the facility (either current and/or historic)  | SELECT |   |
| 6  | Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site   | SELECT |   |
| 7  | Please specify the proposed time frame for the remediation strategy  | SELECT |   |
| 8  | Is there a licence condition to carry out/update ELRA for the site?  | SELECT |   |
| 9  | Has any type of risk assessment been carried out for the site?   | SELECT |   |
| 10 | Has a Conceptual Site Model been developed for the site?   | SELECT |   |
| 11 | Have potential receptors been identified on and off site?  | SELECT |   |
| 12 | Is there evidence that contamination is migrating offsite?   | SELECT |   |

**Table 1: Upgradient Groundwater monitoring results**

| Date of sampling | Sample location reference | Parameter/ Substance | Methodology | Monitoring frequency | Maximum Concentration++ | Average Concentration+ | unit   | GTV's* | SELECT** | Upward trend in pollutant concentration over last 5 years of monitoring data |
|------------------|---------------------------|----------------------|-------------|----------------------|-------------------------|------------------------|--------|--------|----------|--|
|                  |                           |                      |             |                      |                         |                        | SELECT |        |          | SELECT   |
|                  |                           |                      |             |                      |                         |                        | SELECT |        |          | SELECT   |

+. where average indicates arithmetic mean

++. maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

**Table 2: Downgradient Groundwater monitoring results**

| Date of sampling | Sample location reference | Parameter/ Substance | Methodology | Monitoring frequency | Maximum Concentration | Average Concentration | unit   | GTV's* | SELECT** | Upward trend in yearly average pollutant concentration over last 5 years of monitoring data |
|------------------|---------------------------|----------------------|-------------|----------------------|-----------------------|-----------------------|--------|--------|----------|---|
|                  |                           |                      |             |                      |                       |                       | SELECT |        |          | SELECT  |
|                  |                           |                      |             |                      |                       |                       | SELECT |        |          | SELECT  |

\*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA.

[Groundwater monitoring template](#)

|   |         |          |      |      |
|---|---------|----------|------|------|
| <b>Groundwater/Soil monitoring template</b> | Lic No: | W0106-02 | Year | 2016 |
|---|---------|----------|------|------|

More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31)

[Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites \(EPA 2013\).](#)

\*\*Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)

[Groundwater regulations](#)
[Drinking water \(private supply\) standards](#)
[Drinking water \(public supply\) standards](#)
[Interim Guideline Values \(IGV\)](#)

**Table 3: Soil results**

| Date of sampling | Sample location reference | Parameter/ Substance | Methodology | Monitoring frequency | Maximum Concentration | Average Concentration | unit   |
|------------------|---------------------------|----------------------|-------------|----------------------|-----------------------|-----------------------|--------|
|                  |                           |                      |             |                      |                       |                       | SELECT |
|                  |                           |                      |             |                      |                       |                       | SELECT |

Where additional detail is required please enter it here in 200 words or less

## Environmental Liabilities template

Lic No:

W0106-02

Year

2016

[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

|    |   | Commentary                               |  |
|----|---|--|--|
| 1  | ELRA initial agreement status   | Submitted and agreed by EPA              |  |
| 2  | ELRA review status  | Review required and completed            |  |
| 3  | Amount of Financial Provision cover required as determined by the latest ELRA | €1,559,382.90                            | This is the total unknown liabilities - ELRA |
| 4  | Financial Provision for ELRA status   | Submitted and agreed by EPA              |  |
| 5  | Financial Provision for ELRA - amount of cover                                | €865,887.90                              | This is the total unknown liabilities - ELRA |
| 6  | Financial Provision for ELRA - type   | bond                                     |  |
| 7  | Financial provision for ELRA expiry date                                      | 01/01/2018                               |  |
| 8  | Closure plan initial agreement status   | Closure plan submitted and agreed by EPA |  |
| 9  | Closure plan review status  | Review required and completed            |  |
| 10 | Financial Provision for Closure status  | Submitted and agreed by EPA              |  |
| 11 | Financial Provision for Closure - amount of cover                             | €693,495.00                              | Amount for Closure Plan only                 |
| 12 | Financial Provision for Closure - type  | bond                                     |  |
| 13 | Financial provision for Closure expiry date                                   | 01/01/2018                               |  |

| Environmental Management Programme/Continuous Improvement Programme template |   | Lic No:                | W0106-02 | Year | 2016 |
|--|---|------------------------|----------|------|------|
| Highlighted cells contain dropdown menu click to view                        |   | Additional Information |          |      |      |
| 1  | Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information   | SELECT                 |          |      |      |
| 2  | Does the EMS reference the most significant environmental aspects and associated impacts on-site  | SELECT                 |          |      |      |
| 3  | Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements   | SELECT                 |          |      |      |
| 4  | Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence | SELECT                 |          |      |      |

#### Environmental Management Programme (EMP) report

| Objective Category | Target  | Status (% completed) | How target was progressed  | Responsibility  | Intermediate outcomes |
|--------------------|---|----------------------|--|---|-----------------------|
| Operations         | Implement integrated management systems to incorporate Quality, Environment and Health / Safety and get certification to ISO 9001, ISO 14001 and ISO 18001 standards                                | Ongoing              | The ISO 18001 and 9001 systems have been built and all procedures have been written. The next phase will be a roll out of training in 2017 with a view to full implementation sometime in 2018. ISO 14001 was successfully maintained during 2016 which was a major goal and we will integrate the three systems together within the next 18 months. | Facility Manager / Health & Safety Manager                |                       |
| Operations         | Devise plan and tonnage model to ensure the composting facility is capable of accepting and processing 20,000 tonnes of material per annum running and tonnage increases year on year through 2018. | Ongoing              | The composting facility was closed until November 2016 and therefore this target will develop more during 2017.  | Operations Manager / Facility Manager / Managing Director |                       |
| Operations         | Material Sorting Facility (picking station) – integrate the recently purchased equipment including optical sorting units into the facility to further enhance picking capabilities                  | Ongoing              | Minor changes were made to the sorting facility in 2016. A full review and upgrade is scheduled for Q1 2017. At the time of writing this report work had commenced and work is expected to be fully completed on schedule  | Operations Manager / Managing Director                    |                       |
| Operations         | Continue strategy / policy for phasing out older plant and machinery around the site and introducing fresh newer equipment  | Ongoing              | This process is ongoing and progress was made during 2016 with the upgrading of our forklifts and loading shovels. Work still needs to be done across the fleet in 2017. A new fitter has been hired late in 2016 to assist in this process  | Management Team (All)                                     |                       |

| Environmental Management Programme/Continuous Improvement Programme template |  |          |  | Lic No:            | W0106-02 | Year | 2016 |
|--|--|----------|--|--------------------|----------|------|------|
| Operations   | Develop a process for the recycling or management of mattresses on site  | Complete | This has been successfully completed and we are now in a partnership with First Class Recycling who are a new start up company accepting and processing mattresses for recycling / recovery.   | Operations Manager |          |      |      |
| Operations   | Carry out improvements to the container loading area to enhance cleaning and maintenance programmes and enhancing the health and safety standards currently in place in this area                | Complete | This was successfully completed during 2017 with addition of new handrails and a daily housekeeping programme.   | Operations Manager |          |      |      |
| Operations / Health & Safety   | implement a full cleaning schedule which will see maintenance of the internal sheeting panels in all sheds on a weekly basis. This will improve housekeeping and significantly reduce fire risk. | Complete | Complete – this cleaning and maintenance programme is now fully in place and was recently commented on by our insurance company for it's good progress and improvement in 2015   | Section Head       |          |      |      |
| IT Systems   | implement a programme to synchronise weighing data across all 4 Barna Recycling Facilities with real time data and reporting   | Complete | Complete – all company weighbridges now operate on the same software since mid-2015 and Galway office can now see all transactions on other sites  | Individual         |          |      |      |
| Transport  | Roll out twin pack collection vehicles in all areas to reduce carbon footprint and increase the efficiency of the collection phase of our operation  | Ongoing  | Excellent progress made on this plan we now have 9 twin pack vehicles on our fleet from a plan to reach 12. It is ongoing.   | Section Head       |          |      |      |
| Transport  | Increase pay by weight capability across all fleet and implement a system that offers capability to run from the 'back of truck' through to 'invoicing'  | Ongoing  | Excellent progress also made on this project with over half of the required trucks now on pay by weight capability. The company are on track to have all required vehicles in place by deadline of 01/07/2016.   | Section Head       |          |      |      |
| Transport  | Route optimisation – continue to review all commercial and domestic collection routes to ensure maximum potential is achieved from all routes  | Complete | Complete – the company have now completed a review of all routes in all areas and improved significantly on travel distances and ensuring each route picks a maximum load where possible. We now have a person dedicated to this on a full time basis and they will remain in place reviewing this data on an ongoing basis. | Individual         |          |      |      |

| Environmental Management Programme/Continuous Improvement Programme template |  |            |   | Lic No:      | W0106-02 | Year | 2016 |
|--|--|------------|---|--------------|----------|------|------|
| Health & Safety  | Traffic Management – review the traffic management plan for the facility and implement a new plan with no reversing vehicles and separation from vehicles and people                       | Complete   | Complete – new traffic management plan in place, some reversing had to be maintained and full training carried out with all traffic control staff   | Section Head |          |      |      |
| Training   | put another member of staff through the FAS Waste Management Course  | Incomplete | The person who was to complete the course has now left the company. We will review an appropriate alternative in 2016   |              |          |      |      |
| Environmental  | continue to develop the energy and power saving programmes within the waste transfer station and all areas of the site to reduce the usage during both operational and non-operating hours | Ongoing    | This action will always be ongoing as we review ways to get better. This year during 2015 we focused on use of lights and machinery implementing a self-policing 'switch off when not in use' policy throughout the site  | Individual   |          |      |      |
| Environmental  | continue to review the Irish recycling market to identify possible recycling options for various materials within the Country to reduce our carbon footprint                               | Ongoing    | Always ongoing action we are currently in the process of finalising a deal with MSM for glass and tyres.  | Section Head |          |      |      |
| Environmental  | implement an improvement / monitoring programme on site for the management of odour during 2015 that will result in the elimination of any potential odour issues at the facility          | Ongoing    | This project is ongoing as we enter 2016. The first 6 months of 2016 will see a state of the art odour management system implemented in the compost building. This new process has been agreed with the Agency. It took almost the whole of 2015 to identify the best possible system and most important secure the finance for it. | Section Head |          |      |      |
| Sales  | finalise a plan to introduce brown bins to all our domestic customers. Training programmes for the domestic customer should be developed as part of this project.                          | Ongoing    | Complete but ongoing. All areas who meet the criteria for brown bins under current legislation are being provided with a service. A new stock of brown bins has been purchased for the next phase of the project as legislation dictates.   | Section Head |          |      |      |
| Business   | Permitted site – once this site is in a proper condition prepare a plan for the EPA with a proposal / application to have this site integrated into the EPA licence                        | Open       | No progress on this during 2015 due to investment in other areas we don't need this shed for waste processing at present  | Section Head |          |      |      |



| Environmental Management Programme/Continuous Improvement Programme template |   |          |  | Lic No:      | W0106-02 | Year | 2016 |
|--|---|----------|--|--------------|----------|------|------|
| Business   | Storage Hub / Car Park – as a long term goal continue to look for a suitable location which will allow a compound to be built off site to store / control empty bins or skips. This will not be a waste storage area it will be solely for storing the company's stock of empty skips or bins awaiting distribution | Ongoing  | Good progress made on this in 2015 a site is in place, is almost filled and planning has been granted. We will finalise plans for full implementation of this project during 2016.                       | Section Head |          |      |      |
| Training   | continue to support all staff training to ensure we meet health and safety and other compliance standards as well as develop our workforce  | Complete | Complete – training plan for 2015 was fully implemented with new machine operators, manual handling, tool box talks and chemical awareness among the courses completed. A new plan is in place for 2016. | Individual   |          |      |      |
| Training   | carry out chemical awareness training for compost operators   | Complete | Complete – course carried out on site during 2015  | Section Head |          |      |      |
| Training   | introduce daily safety huddles on site  | Complete | Complete – huddles take place at the start of each shift on site   | Section Head |          |      |      |
| Training   | – introduce a programme of regular tool box talks within key areas of the business throughout 2015  | Complete | Complete – our H&S Officer carries our regular tool box talks on site and this will continue into 2016   | Section Head |          |      |      |
| <b><i>New List of Targets and Objectives for 2016</i></b>                    |   |          |  |              |          |      |      |
| Operations   | Complete implementation of integrated management systems to incorporate Quality, Environment and Health / Safety and get certification to ISO 9001, ISO 14001 and ISO 18001 standards   | Open     |  | Section Head |          |      |      |
| Operations   | Devise plan and tonnage model to ensure the composting facility is capable of accepting and processing 20,000 tonnes of material per annum running and tonnage increases year on year through 2018  | Open     |  | Section Head |          |      |      |
| Operations   | Material Sorting Facility (picking station) – integrate the recently purchased equipment including optical sorting units into the facility to further enhance picking capabilities  | Open     |  | Section Head |          |      |      |
| Operations   | continue strategy / policy for phasing out older plant and machinery around the site and introducing fresh newer equipment  | Open     |  | Section Head |          |      |      |

| Environmental Management Programme/Continuous Improvement Programme template |   |          |   | Lic No:                                      | W0106-02 | Year | 2016 |
|--|---|----------|---|--|----------|------|------|
| Operations   | develop a process for the recycling or management of mattresses on site   | Open     |   | Section Head                                 |          |      |      |
| Operations   | carry out improvements to the container loading area to enhance cleaning and maintenance programmes and maintaining the health and safety standards currently in place in this area   | Open     |   | Section Head                                 |          |      |      |
| Operations / Health & Safety   | review the situation with temporary work staff make decision if this is best practice or not and if we maintain temporary staff we must incorporate them into the company vaccination programme as soon as possible                               | Complete | This was reviewed and completed during 2016 and it was agreed to try and reduce Agency staff to a minimum in Q1 2017 and eliminate completely from Q2 2017 onwards. | Operations Manager / Health & Safety Manager |          |      |      |
| Housekeeping   | maintain a full cleaning schedule which will see maintenance of the internal sheeting panels in all sheds. Continue until all sheds are complete.   | Ongoing  | Really good progress in 2016 and insurance are happy with the progress made. Programme will continue on an ongoing basis through 2017.                              | Operations Manager / Health & Safety Manager |          |      |      |
| Housekeeping   | improve the management of litter and smoking related wastes around the site canteen areas on a daily basis  | Complete | This is managed on a daily basis by a dedicated employee and has seen this issue fully resolved.  | Operations Manager / Health & Safety Manager |          |      |      |
| Housekeeping   | – review housekeeping around the main site office and implement an improvement programme through 2016   | Complete | This is managed on a daily basis by a dedicated employee and has seen this issue fully resolved.  | Operations Manager / Health & Safety Manager |          |      |      |
| Housekeeping   | – implement a self-cleaning housekeeping programme in the site bin storage area   | Complete | This is managed on a daily basis by a dedicated employee and has seen this issue fully resolved.  | Operations Manager                           |          |      |      |
| IT Systems   | implement a self-weighing facility into the site weighbridges for specific transactions only  | Complete | This process is complete the software and controls are completely installed. The process will be put into practice during 2017.                                     | IT Manager                                   |          |      |      |
| Transport  | Increase pay by weight capability across all fleet and implement a system that offers capability to run from the 'back of truck' through to 'invoicing'. Priority to ensure all domestic vehicles have full weighing capability by July 1st 2016. | Complete | This process is fully installed despite the delay in the legal implementation of pay by weight our trucks and systems are fully in place to allow it to take place. | Management Team (All)                        |          |      |      |

| Environmental Management Programme/Continuous Improvement Programme template |  |          |   | Lic No:                               | W0106-02 | Year | 2016 |
|--|--|----------|---|---------------------------------------|----------|------|------|
| Transport  | develop a 'data management team' before pay by weight introduction who are responsible for monitoring live data and problem management   | Complete | A team of 3 staff have been hired and fully trained in a permanent capacity during 2016.  | Management Team (All)                 |          |      |      |
| Training   | put another member of staff through the FAS Waste Management Course  | Closed   | This was not completed during 2016 but this course is no longer available.  | Facility Manager                      |          |      |      |
| Environmental  | continue to develop the energy and power saving programmes within the waste transfer station and all areas of the site to reduce the usage during both operational and non-operating hours | Ongoing  | This was successfully managed during 2016 with electricity usage on site being reduced from 2,006,951 units to just over 1,400,000 units.   | Facility Manager / Operations Manager |          |      |      |
| Environmental  | continue to review the Irish recycling market to identify possible recycling options for various materials within the Country to reduce our carbon footprint                               | Ongoing  | This issue is always ongoing but progress continued during 2016 with work starting on supporting a new local mattress recycling centre, a partnership with Glassco agreed for 2017, plasterboard recycling now being done in Ireland and increase in dealings with both Pacon and Wiltons in relation to RDF materials. | Facility Manager                      |          |      |      |
| Environmental  | complete installation of new odour management system within the composting process   | Complete | The new Gicom composting system for managing odour has been fully installed and operational in November 2016.   | Managing Director                     |          |      |      |
| Sales  | continue to implement a plan to introduce brown bins to all our domestic customers. Training programmes for the domestic customer should be developed as part of this project.             | Ongoing  | Brown bins were introduced to more communities in 2016 and a plan is already in place to increase this further in February 2017.  | Sales Manager.                        |          |      |      |
| Sales  | introduce a programme of school visits and presentation to target the younger generation interested in recycling   | Complete | A new school based recycling presentation has been developed and is delivered on an as required basis to interested schools in the region.  | Sales Manager.                        |          |      |      |
| Business   | Permitted site – once this site is in a proper condition prepare a plan for the EPA with a proposal / application to have this site integrated into the EPA licence                        | Ongoing  | Work has begun on preparing this site to EPA standard and integration into the EPA licence should be completed by the end of 2017.  | Facility Manager / Managing Director  |          |      |      |

| Environmental Management Programme/Continuous Improvement Programme template |   |          |   | Lic No:               | W0106-02 | Year | 2016 |
|--|---|----------|---|-----------------------|----------|------|------|
| Business   | Storage Hub / Car Park – carry out construction now that a site has been identified which will see a compound built off site to store / control empty bins or skips. This will not be a waste storage area it will be solely for storing the company's stock of empty skips or bins awaiting distribution   | Complete | The truck parking area has been constructed and is now in use on site. A skip storage area is also in place adjacent to the weighbridge.  | Management Team (All) |          |      |      |
| Training   | continue to support all staff training to ensure we meet health and safety and other compliance standards as well as develop our workforce – main focus in 2016 to be on manual handling refresher courses and training for drivers and helpers on best practice on the backs of trucks with bins lifts etc | Complete | All identified training for 2016 was completed which included refreshers of machine training and manual handling. In addition bin lift safety training, pay by weight training, tacograph and handheld training along with general tool box talks were all completed. | Management Team (All) |          |      |      |

**Noise monitoring summary report**      Lic No: W0106-02      Year 2016

1 Was noise monitoring a licence requirement for the AER period?

If yes please fill in table N1 noise summary below

2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?

[Noise Guidance note NG4](#)

3 Does your site have a noise reduction plan

4 When was the noise reduction plan last updated?

5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

**Table N1: Noise monitoring summary**

| Date of monitoring | Time period | Noise location (on site) | Noise sensitive location -NSL (if applicable) | LA <sub>eq</sub> | LA <sub>90</sub> | LA <sub>10</sub> | LA <sub>max</sub> | Tonal or Impulsive noise* (Y/N) | If tonal /impulsive noise was identified was 5dB penalty applied? | Comments (ex. main noise sources on site, & extraneous noise ex. road traffic) | Is site compliant with noise limits (day/evening/night)? |
|--------------------|-------------|--------------------------|---|------------------|------------------|------------------|-------------------|---------------------------------|---|--|--|
| 25/05/2016         | daytime     | On site                  | N1 Reading 1                                  | 51.5             | 42.4             | 51               | 76.6              | Yes                             | Yes   |  | Yes  |
| 25/05/2016         | daytime     | On site                  | N1 Reading 2                                  | 55.1             | 44.8             | 56.2             | 78.8              | Yes                             | Yes   |  | Yes  |
| 25/05/2016         | daytime     | On site                  | N1 Reading 3                                  | 49.2             | 44.5             | 51               | 65.7              | Yes                             | Yes   |  | Yes  |
| 25/05/2016         | daytime     | Off site                 | N2 Reading 1                                  | 49.7             | 36.9             | 50.2             | 69                | No                              |   |  | Yes  |
| 25/05/2016         | daytime     | Off site                 | N2 Reading 2                                  | 45.8             | 36.9             | 45.4             | 67.3              | No                              |   |  | Yes  |
| 25/05/2016         | daytime     | Off site                 | N2 Reading 3                                  | 48.4             | 37.7             | 47.5             | 67.2              | No                              |   |  | Yes  |

\*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

\*\* please explain the reason for not taking action/resolution of noise issues?

Any additional comments? (less than 200 words)

- 1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below
- 2 Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI - Large Industry Energy Network (LIEN) programme linked to the right? If yes please list them in additional information
- 3 Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

| Additional information |  |
|------------------------|--|
| Enter date of audit    |  |
| SELECT                 |  |
| SELECT                 |  |

| Table R1 Energy usage on site            |               |              |  |  |
|--|---------------|--------------|--|--|
| Energy Use                               | Previous year | Current year | Production +/- % compared to previous reporting year** | Energy Consumption +/- % vs overall site production* |
| Total Energy Used (MWHrs)                |               |              |  |  |
| Total Energy Generated (MWHrs)           |               |              |  |  |
| Total Renewable Energy Generated (MWHrs) |               |              |  |  |
| Electricity Consumption (MWHrs)          | 2006          | 1,446        | -28%   |  |
| Fossil Fuels Consumption:                |               |              |  |  |
| Heavy Fuel Oil (m3)                      |               |              |  |  |
| Light Fuel Oil (m3)                      | 1121.64       | 1097         | -2%  |  |
| Natural gas (m3)                         |               |              |  |  |
| Coal/Solid fuel (metric tonnes)          |               |              |  |  |
| Peat (metric tonnes)                     |               |              |  |  |
| Renewable Biomass                        |               |              |  |  |
| Renewable energy generated on site       |               |              |  |  |

\* where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.  
 \*\* where site production information is available please enter percentage increase or decrease compared to previous year

| Table R2 Water usage on site |                                      |                                     |  |  | Water Emissions  | Water Consumption  |                        |
|------------------------------|--------------------------------------|-------------------------------------|--|--|--|--|------------------------|
| Water use                    | Water extracted Previous year m3/yr. | Water extracted Current year m3/yr. | Production +/- % compared to previous reporting year** | Energy Consumption +/- % vs overall site production* | Volume Discharged back to environment(m <sup>3</sup> /yr): | Volume used i.e not discharged to environment e.g. released as steam m3/yr | Unaccounted for Water: |
| Groundwater                  |                                      |                                     |  |  |  |  |                        |
| Surface water                |                                      |                                     |  |  |  |  |                        |
| Public supply                |                                      |                                     |  |  |  |  |                        |
| Recycled water               |                                      |                                     |  |  |  |  |                        |
| Total                        |                                      |                                     |  |  |  |  |                        |

\* where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.  
 \*\* where site production information is available please enter percentage increase or decrease compared to previous year

| Table R3 Waste Stream Summary |       |          |              |          |       |
|-------------------------------|-------|----------|--------------|----------|-------|
|                               | Total | Landfill | Incineration | Recycled | Other |
| Hazardous (Tonnes)            |       |          |              |          |       |
| Non-Hazardous (Tonnes)        |       |          |              |          |       |

|   |                  |      |      |
|---|------------------|------|------|
| <b>Resource Usage/Energy efficiency summary</b> | Lic No: W0106-02 | Year | 2016 |
|---|------------------|------|------|

| Table R4: Energy Audit finding recommendations |                 |                                  |                    |                            |                     |                |                 |                     |
|--|-----------------|----------------------------------|--------------------|----------------------------|---------------------|----------------|-----------------|---------------------|
| Date of audit                                  | Recommendations | Description of Measures proposed | Origin of measures | Predicted energy savings % | Implementation date | Responsibility | Completion date | Status and comments |
|  |                 |                                  | SELECT             |                            |                     |                |                 |                     |
|  |                 |                                  | SELECT             |                            |                     |                |                 |                     |
|  |                 |                                  | SELECT             |                            |                     |                |                 |                     |

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry) please complete the following information

|   | Unit ID | Unit ID | Unit ID | Unit ID | Station Total |
|---|---------|---------|---------|---------|---------------|
| Technology                                |         |         |         |         |               |
| Primary Fuel                              |         |         |         |         |               |
| Thermal Efficiency                        |         |         |         |         |               |
| Unit Date of Commission                   |         |         |         |         |               |
| Total Starts for year                     |         |         |         |         |               |
| Total Running Time                        |         |         |         |         |               |
| Total Electricity Generated (GWH)         |         |         |         |         |               |
| House Load (GWH)                          |         |         |         |         |               |
| KWH per Litre of Process Water            |         |         |         |         |               |
| KWH per Litre of Total Water used on Site |         |         |         |         |               |

**Complaints and Incidents summary template** Lic No: W0106-02 Year 2016

**Complaints** Additional information

Have you received any environmental complaints in the current reporting year? If yes please complete summary details of complaints received on site in table 1 below

|     |             |
|-----|-------------|
| Yes | 1 Complaint |
|-----|-------------|

| Date  | Category | Other type (please specify) | Brief description of complaint (Free txt <20 words) | Corrective action< 20 words | Resolution status | Resolution date | Further information |
|---|----------|-----------------------------|---|-----------------------------|-------------------|-----------------|---------------------|
| 12/12/2016  | Odour    | Not Applicable (Odour)      | Odour coming from facility,                         | Company have recently inst  | Complete          | Dec-16          | CLOSED              |
|   | SELECT   |                             |   |                             | SELECT            |                 |                     |
|   | SELECT   |                             |   |                             | SELECT            |                 |                     |
|   | SELECT   |                             |   |                             | SELECT            |                 |                     |
|   | SELECT   |                             |   |                             | SELECT            |                 |                     |
| Total complaints open at start of reporting year    |          | 5                           |   |                             |                   |                 |                     |
| Total new complaints received during reporting year |          | 1                           |   |                             |                   |                 |                     |
| Total complaints closed during reporting year       |          | 6                           |   |                             |                   |                 |                     |
| Balance of complaints end of reporting year         |          | 0                           |   |                             |                   |                 |                     |

**Incidents** Additional information

Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below

|    |  |
|----|--|
| No |  |
|----|--|

\*For information on how to report and what constitutes an incident [What is an incident](#)

| Date of occurrence                      | Incident nature                                   | Location of occurrence | Incident category*please refer to guidance | Receptor | Cause of incident | Other cause(please specify) | Activity in progress at time of incident | Communication | Occurrence | Corrective action<20 words | Preventative action <20 words | Resolution status | Resolution date | Likelihood of reoccurrence |
|---|---|------------------------|--|----------|-------------------|-----------------------------|--|---------------|------------|----------------------------|-------------------------------|-------------------|-----------------|----------------------------|
|   | SELECT  | SELECT                 | SELECT                                     | SELECT   | SELECT            |                             | SELECT                                   | SELECT        | SELECT     |                            |                               | SELECT            |                 | SELECT                     |
|   | SELECT  | SELECT                 | SELECT                                     | SELECT   | SELECT            |                             | SELECT                                   | SELECT        | SELECT     |                            |                               | SELECT            |                 | SELECT                     |
|   | SELECT  | SELECT                 | SELECT                                     | SELECT   | SELECT            |                             | SELECT                                   | SELECT        | SELECT     |                            |                               | SELECT            |                 | SELECT                     |
|   | SELECT  | SELECT                 | SELECT                                     | SELECT   | SELECT            |                             | SELECT                                   | SELECT        | SELECT     |                            |                               | SELECT            |                 | SELECT                     |
|   | SELECT  | SELECT                 | SELECT                                     | SELECT   | SELECT            |                             | SELECT                                   | SELECT        | SELECT     |                            |                               | SELECT            |                 | SELECT                     |
| Total number of incidents current year  |   | 1                      |  |          |                   |                             |  |               |            |                            |                               |                   |                 |                            |
| Total number of incidents previous year |   | 5                      |  |          |                   |                             |  |               |            |                            |                               |                   |                 |                            |
| % reduction/ increase                   | 500% reduction (5 incidents last year, down to 1) |                        |  |          |                   |                             |  |               |            |                            |                               |                   |                 |                            |



|   |                     |                                    |
|---|---------------------|------------------------------------|
| <b>WASTE SUMMARY</b>  | Lic No: W0106-02    | Year: 2016                         |
| <b>SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES</b> | PRTR facility name: | dropdown list click to see options |

**SECTION B- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES**

Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility?; (waste generated within your boundaries is to be captured through PRTR reporting)

Additional Information

SELECT

If yes please enter details in table 1 below

2 Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information

SELECT

3 Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information

SELECT

**Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook)**

| Licensed annual tonnage limit for your site (total tonnes/annum) | EWC code   | Source of waste accepted  | Description of waste accepted <b>Please enter an accurate and detailed description - which applies to relevant EWC code</b> | Quantity of waste accepted in current reporting year (tonnes) | Quantity of waste accepted in previous reporting year (tonnes) | Reduction/ increase over previous year +/- % | Reason for reduction/ increase from previous reporting year | Packaging Content (%) - only applies if the waste has a packaging component | Disposal/Recovery or treatment operation carried out at your site and the description of this operation  | Quantity of waste remaining on site at the end of reporting year (tonnes) | Comments - |
|--|--|---|---|---|--|--|---|---|--|---|------------|
|  | <a href="#">European Waste Catalogue EWC codes</a> |   | <a href="#">European Waste Catalogue EWC codes</a>  |   |  |  |   |   |  |   |            |
|  | 20 03 01   | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Domestic Municipal Waste  | 32,337.35   | 32621.73   | -0.87%                                       | Market Demand   | 0%  | D13- Blending or mixing prior to submission to any of the operations numbered D1 to D12  | 0   |            |
|  | 20 03 01   | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Commercial Municipal Waste  | 18,312.97   | 18701.08   | -2.08%                                       | Market Demand   | 0%  | D13- Blending or mixing prior to submission to any of the operations numbered D1 to D12  | 0   |            |
|  | 20 03 03   | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Street / Road Sweepings   | 1.26  | 1022.77  | -99.88%                                      | Market Demand   | 0%  | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials   | 0   |            |
|  | 17 09 04   | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)   | Mixed C & D waste   | 2,927.34  | 2076.32  | 40.99%                                       | Market Demand   | 0%  | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials   | 0   |            |
|  | 17 02 01   | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)   | Wood / Timber   | 1,490.15  | 0  | 100.00%                                      | Market Demand   | 0%  | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials   | 0   |            |
|  | 20 02 01   | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Garden and Park Waste   | 1,117.13  | 356.27   | 213.56%                                      | Market Demand   | 0%  | R3-Recycling/reclamation or organic substances which are not used as solvents(including composting as another biological transformation processes)which includes gasification and pyrolysis  | 0   |            |
|  | 15 01 01   | 15- WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED                            | Cardboard   | 1,994.57  | 2052.87  | -2.84%                                       | Market Demand   | 0%  | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0   |            |

| WASTE SUMMARY |          | Lic No:  |                              | W0106-02 |         | Year     |               | 2016 |  |   |
|---------------|----------|--|------------------------------|----------|---------|----------|---------------|------|--|---|
|               | 20 01 01 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Paper                        | 682.18   | 626.86  | 8.82%    | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 20 01 39 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Plastic                      | 613.34   | 558.57  | 9.81%    | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 16 01 20 | 16- WASTES NOT OTHERWISE SPECIFIED IN THE LIST   | Sorted windscreen flat glass | 0        | 0       | 0.00%    | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 20 01 38 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Timber / Wood                | 0        | 2402.92 | -100.00% | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 20 01 40 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Metals                       | 0        | 0       | 100.00%  | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |

| WASTE SUMMARY |          | Lic No:   | W0106-02                     | Year      | 2016      |         |               |    |  |   |
|---------------|----------|---|------------------------------|-----------|-----------|---------|---------------|----|--|---|
|               | 17 04 07 | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)   | Metals                       | 452.63    | 397.42    | 13.89%  | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 20 03 06 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Skips at treatment plants    | 0         | 0         | 100.00% | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 16 03 04 | 16- WASTES NOT OTHERWISE SPECIFIED IN THE LIST  | Off Spec Product             | 17.04     | 3.34      | 410.18% | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 20 01 08 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Food Waste                   | 14,082.28 | 16,274.27 | -13.47% | Market Demand | 0% | R3-Recycling/reclamation or organic substances which are not used as solvents(including composting as another biological transformation processes)which includes gasification and pyrolysis  | 0 |
|               | 15 01 02 | 15- WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED                            | segregated plastic packaging | 0         | 0         | 0.00%   | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 17 08 02 | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)   | Plasterboard / Gypsum        | 37.3      | 39.24     | -4.94%  | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, seperating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |

| WASTE SUMMARY |          | Lic No:   |                   | W0106-02 |        | Year     |               | 2016 |  |   |
|---------------|----------|---|-------------------|----------|--------|----------|---------------|------|--|---|
|               | 16 01 03 | 16- WASTES NOT OTHERWISE SPECIFIED IN THE LIST  | Tyres             | 109.43   | 90.44  | 21.00%   | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 20 01 10 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS                                 | Clothes           | 4.72     | 14.82  | -68.15%  | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 19 08 01 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Grit / Screenings | 0        | 365.53 | -100.00% | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 15 01 03 | 15- WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED  | wood packaging    | 0        | 0      | 0.00%    | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 15 01 04 | 15- WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED  | Aluminium cans    | 0        | 0      | 0.00%    | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |

| WASTE SUMMARY |          | Lic No:  |                                 | W0106-02 |   | Year    |               | 2016 |  |   |
|---------------|----------|--|---------------------------------|----------|---|---------|---------------|------|--|---|
|               | 16 06 04 | 16- WASTES NOT OTHERWISE SPECIFIED IN THE LIST   | Alkaline Batteries              | 0.48     | 0 | 0.00%   | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 15 01 07 | 15- WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED | sorted glass                    | 0        | 0 | 0.00%   | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 16 02 13 | 16- WASTES NOT OTHERWISE SPECIFIED IN THE LIST   | TVs and Monitors                | 0        | 0 | 0.00%   | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 16 02 14 | 16- WASTES NOT OTHERWISE SPECIFIED IN THE LIST   | Small domestic appliances       | 0        | 0 | 0.00%   | Market Demand | 0%   | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 17 02 02 | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)                        | sorted non packaged glass       | 0        | 0 | 0.00%   | Market Demand | 0%   | R5-Recycling/reclamation or other inorganic materials which includes soil celening resulting in recovery of the soil and recycling of inorganic construction materials   | 0 |
|               | 17 04 11 | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)                        | electric cables                 | 0        | 0 | 0.00%   | Market Demand | 0%   | R5-Recycling/reclamation or other inorganic materials which includes soil celening resulting in recovery of the soil and recycling of inorganic construction materials   | 0 |
|               | 17 05 04 | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)                        | inert rubble and soils material | 4764.63  | 0 | 100.00% | Market Demand | 0%   | R5-Recycling/reclamation or other inorganic materials which includes soil celening resulting in recovery of the soil and recycling of inorganic construction materials   | 0 |

| WASTE SUMMARY |          | Lic No:   | W0106-02                       | Year      | 2016     |          |               |    |  |   |
|---------------|----------|---|--------------------------------|-----------|----------|----------|---------------|----|--|---|
|               | 19 05 01 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE   | outhrow from compost           | 0         | 973.04   | -100.00% | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)   | 0 |
|               | 17 01 07 | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)   | Inert Waste                    | 0         | 2977.82  | -100.00% | Market Demand | 0% | R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials<br>R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) | 0 |
|               | 16 02 01 | 16- WASTES NOT OTHERWISE SPECIFIED IN THE LIST  | Scrap Electronics / WEEE       | 23.12     | 67.58    | -65.79%  | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)   | 0 |
|               | 20 01 99 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS   | Mixed Kerbside Recyclables     | 25,273.35 | 26310.88 | -3.94%   | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)   | 0 |
|               | 20 01 02 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS   | Glass                          | 1,296.25  | 1190.28  | 8.90%    | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)   | 0 |
|               | 20 03 04 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS   | Sludge / Compostable Materials | 277.07    | 0        | 100.00%  | Market Demand | 0% | R3-Recycling/reclamation or organic substances which are not used as solvents(including composting as another biological transformation processes)which includes gasification and pyrolysis  | 0 |
|               | 18 01 04 | 18- WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate RESEARCH (except kitchen and restaurant wastes not arising from immediate health care) | Non-Risk Healthcare Waste      | 4.74      | 0        | 100.00%  | Market Demand | 0% | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelleting, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11)   | 0 |

| WASTE SUMMARY               |          |   |             |            |           |          |               |    |  |   |
|-----------------------------|----------|---|-------------|------------|-----------|----------|---------------|----|--|---|
| Lic No: W0106-02 Year: 2016 |          |   |             |            |           |          |               |    |  |   |
|                             | 20 30 01 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS                                 | RDF         | 0          | 21.58     | -100.00% | Market Demand | 0% | D13- Blending or mixing prior to submission to any of the operations numbered D1 to D12  | 0 |
|                             | 19 08 09 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Grease      | 0.72       | 0         | 100.00%  |               |    | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) |   |
|                             | 20 03 07 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS                                 | Bulky Waste | 348.73     | 0         | 100.00%  |               |    | D13- Blending or mixing prior to submission to any of the operations numbered D1 to D12  |   |
|                             | 13 08 99 | 13 - OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 5, 12 AND 19)   | Oil         | 5.34       | 0         | 100.00%  |               |    | R12-Exchange of waste for submission to any of the operations numbered R1 to R11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11) |   |
|                             |          |   |             | 106,174.12 | 109145.63 | -2.72%   |               |    |  |   |

**SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES**

4 Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite

|     |  |
|-----|--|
| Yes |  |
|     |  |

5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required on site

|     |  |
|-----|--|
| Yes |  |
|     |  |

6 Does your facility have relevant nuisance controls in place?

|     |  |
|-----|--|
| Yes |  |
|-----|--|

7 Do you have an odour management system in place for your facility? If no why?

|     |  |
|-----|--|
| Yes |  |
|-----|--|

8 Do you maintain a sludge register on site?

|     |  |
|-----|--|
| Yes |  |
|-----|--|

**SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY**

**Table 2 Waste type and tonnage-landfill only**

| Waste types permitted for disposal | Authorised/licenced annual intake for disposal (tpa) | Actual intake for disposal in reporting year (tpa) | Remaining licensed capacity at end of reporting year (m3) | Comments |
|------------------------------------|--|--|---|----------|
|                                    |  |  |   |          |
|                                    |  |  |   |          |

**Table 3 General information-Landfill only**

| Area ID | Date landfilling commenced | Date landfilling ceased | Currently landfilling | Private or Public Operated | Inert or non-hazardous | Predicted date to cease landfilling | Licence permits asbestos | Is there a separate cell for asbestos? | Accepted asbestos in reporting year | Total disposal area occupied by waste | Lined disposal area occupied by waste | Unlined area | Comments on liner type |
|---------|----------------------------|-------------------------|-----------------------|----------------------------|------------------------|-------------------------------------|--------------------------|--|-------------------------------------|---------------------------------------|---------------------------------------|--------------|------------------------|
|         |                            |                         |                       |                            |                        |                                     |                          |  |                                     | SELECT UNIT                           | SELECT UNIT                           | SELECT UNIT  |                        |
| Cell 8  |                            |                         |                       |                            |                        |                                     |                          |  |                                     |                                       |                                       |              |                        |

**Table 4 Environmental monitoring-landfill only** [Landfill Manual-Monitoring Standards](#)

**WASTE SUMMARY** Lic No: W0106-02 Year: 2016

|   |   |   |   |   |  |   |   |          |
|---|---|---|---|---|--|---|---|----------|
| Was meteorological monitoring in compliance with Landfill Directive (LD) standard in reporting year + | Was leachate monitored in compliance with LD standard in reporting year | Was Landfill Gas monitored in compliance with LD standard in reporting year | Was SW monitored in compliance with LD standard in reporting year | Have GW trigger levels been established | Were emission limit values agreed with the Agency (ELVs) | Was topography of the site surveyed in reporting year | Has the statement under SSS(A)(5) of WMA been submitted in reporting year | Comments |
|---|---|---|---|---|--|---|---|----------|

\*please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

**Table 5 Capping-Landfill only**

|                |                         |   |                   |   |                                    |          |
|----------------|-------------------------|---|-------------------|---|------------------------------------|----------|
| Area uncapped* | Area with temporary cap | Area with final cap to LD Standard m <sup>2</sup> ha, a | Area capped other | Area with waste that should be permanently capped to date under licence | What materials are used in the cap | Comments |
| SELECT UNIT    | SELECT UNIT             |   |                   |   |                                    |          |

\*please note this includes daily cover area

**Table 6 Leachate-Landfill only**

9 Is leachate from your site treated in a Waste Water Treatment Plant?

SELECT  
SELECT

10 Is leachate released to surface water? If yes please complete leachate mass load information below

| Volume of leachate in reporting year(m3) | Leachate (BOD) mass load (kg/annum) | Leachate (COD) mass load (kg/annum) | Leachate (NH4) mass load (kg/annum) | Leachate (Chloride) mass load kg/annum | Leachate treatment on-site | Specify type of leachate treatment | Comments |
|--|-------------------------------------|-------------------------------------|-------------------------------------|--|----------------------------|------------------------------------|----------|
|  |                                     |                                     |                                     |  |                            |                                    |          |

Please ensure that all information reported in the landfill gas section is consistent with the Landfill Gas Survey submitted in conjunction with PRTR returns

**Table 7 Landfill Gas-Landfill only**

|  |                            |                                  |   |          |
|--|----------------------------|----------------------------------|---|----------|
| Gas Captured& Treated by LFG System m3 | Power generated (MW / kWh) | Used on-site or to national grid | Was surface emissions monitoring performed during the reporting year? | Comments |
|  |                            |                                  | SELECT  |          |





**Appendix B:**

AER / PRTR Workbook for 2016

[Guidance to completing the PRTR workbook](#)

# PRTR Returns Workbook

Version 1.1.19

|                       |      |
|-----------------------|------|
| <b>REFERENCE YEAR</b> | 2016 |
|-----------------------|------|

## 1. FACILITY IDENTIFICATION

|                            |   |
|----------------------------|---|
| Parent Company Name        | Bruscar Bhearna Teoranta                |
| Facility Name              | Bruscar Bhearna Teoranta (Carrowbrowne) |
| PRTR Identification Number | W0106                                   |
| Licence Number             | W0106-02                                |

### Classes of Activity

| No. | class_name                           |
|-----|--------------------------------------|
| -   | Refer to PRTR class activities below |

|  |   |
|--|---|
| Address 1                                      | Carrowbrowne                                  |
| Address 2                                      | Headford Road                                 |
| Address 3                                      | Galway  |
| Address 4                                      |   |
|  | Galway  |
| Country  | Ireland                                       |
| Coordinates of Location                        | -9.01825 53.3301                              |
| River Basin District                           | IEWE  |
| NACE Code                                      | 3821  |
| Main Economic Activity                         | Treatment and disposal of non-hazardous waste |
| <b>AER Returns Contact Name</b>                | Campbell Finnie                               |
| <b>AER Returns Contact Email Address</b>       | cfinnie@barnawaste.com                        |
| <b>AER Returns Contact Position</b>            | Facility Manager                              |
| <b>AER Returns Contact Telephone Number</b>    | 091 771619                                    |
| <b>AER Returns Contact Mobile Phone Number</b> | 087-7408568                                   |
| <b>AER Returns Contact Fax Number</b>          | 091-771735                                    |
| <b>Production Volume</b>                       | 101508.2                                      |
| <b>Production Volume Units</b>                 | tonnes  |
| <b>Number of Installations</b>                 | 1   |
| <b>Number of Operating Hours in Year</b>       | 4160  |
| <b>Number of Employees</b>                     | 280   |
| <b>User Feedback/Comments</b>                  | No issues worth reporting this year.          |
| <b>Web Address</b>                             |   |

## 2. PRTR CLASS ACTIVITIES

| Activity Number | Activity Name   |
|-----------------|---|
| 5(c)            | Installations for the disposal of non-hazardous waste |
| 5(c)            | Installations for the disposal of non-hazardous waste |
| 50.1            | General   |

## 3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

|   |    |
|---|----|
| Is it applicable?   | No |
| Have you been granted an exemption ?  |    |
| If applicable which activity class applies (as per Schedule 2 of the regulations) ? |    |
| Is the reduction scheme compliance route being used ?                               |    |

## 4. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

|  |  |
|--|--|
| Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ? |  |
|--|--|

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

| POLLUTANT        |      | METHOD      |             |                            | QUANTITY   |                   |                        |                      |
|------------------|------|-------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| RELEASERS TO AIR |      | METHOD USED |             |                            | PLEASE ENTER ALL QUANTITIES IN THIS SECTION IN KGs |                   |                        |                      |
| No. Annex II     | Name | M/C/E       | Method Code | Designation or Description | Emission Point 1                                   | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
|                  |      |             |             |                            | 0.0  | 0.0               | 0.0                    | 0.0                  |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**SECTION B : REMAINING PRTR POLLUTANTS**

| POLLUTANT        |      | METHOD      |             |                            | QUANTITY   |                   |                        |                      |
|------------------|------|-------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| RELEASERS TO AIR |      | METHOD USED |             |                            | PLEASE ENTER ALL QUANTITIES IN THIS SECTION IN KGs |                   |                        |                      |
| No. Annex II     | Name | M/C/E       | Method Code | Designation or Description | Emission Point 1                                   | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
|                  |      |             |             |                            | 0.0  | 0.0               | 0.0                    | 0.0                  |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)**

| POLLUTANT        |      | METHOD      |             |                            | QUANTITY   |                   |                        |                      |
|------------------|------|-------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| RELEASERS TO AIR |      | METHOD USED |             |                            | PLEASE ENTER ALL QUANTITIES IN THIS SECTION IN KGs |                   |                        |                      |
| Pollutant No.    | Name | M/C/E       | Method Code | Designation or Description | Emission Point 1                                   | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
|                  |      |             |             |                            | 0.0  | 0.0               | 0.0                    | 0.0                  |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**Additional Data Requested from Landfill operators**

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

| Landfill:<br>Please enter summary data on the quantities of methane flared and / or utilised | Bruscar Bhearna Teoranta (Carrowbrowne) |       |             |                            | Facility Total Capacity<br>m3 per hour |
|--|---|-------|-------------|----------------------------|--|
|  | T (Total) kg/Year                       | M/C/E | Method Code | Designation or Description |  |
| Total estimated methane generation (as per site model)                                       | 0.0                                     |       |             |                            | N/A                                    |
| Methane flared   | 0.0                                     |       |             |                            | 0.0 (Total Flaring Capacity)           |
| Methane utilised in engine/s   | 0.0                                     |       |             |                            | 0.0 (Total Utilising Capacity)         |
| Net methane emission (as reported in Section A above)  | 0.0                                     |       |             |                            | N/A                                    |

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

| RELEASES TO WATERS |      |       |             |                            | Please enter all quantities in this section in KGs |                   |                        |                      |
|--------------------|------|-------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT          |      | M/C/E | Method Used |                            | Emission Point 1                                   | T (Total) KG/Year | QUANTITY               |                      |
| No. Annex II       | Name |       | Method Code | Designation or Description |  |                   | A (Accidental) KG/Year | F (Fugitive) KG/Year |
|                    |      |       |             |                            | 0.0  | 0.0               | 0.0                    | 0.0                  |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**SECTION B : REMAINING PRTR POLLUTANTS**

| RELEASES TO WATERS |      |       |             |                            | Please enter all quantities in this section in KGs |                   |                        |                      |
|--------------------|------|-------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT          |      | M/C/E | Method Used |                            | Emission Point 1                                   | T (Total) KG/Year | QUANTITY               |                      |
| No. Annex II       | Name |       | Method Code | Designation or Description |  |                   | A (Accidental) KG/Year | F (Fugitive) KG/Year |
|                    |      |       |             |                            | 0.0  | 0.0               | 0.0                    | 0.0                  |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)**

| RELEASES TO WATERS |      |       |             |                            | Please enter all quantities in this section in KGs |                   |                        |                      |
|--------------------|------|-------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT          |      | M/C/E | Method Used |                            | Emission Point 1                                   | T (Total) KG/Year | QUANTITY               |                      |
| Pollutant No.      | Name |       | Method Code | Designation or Description |  |                   | A (Accidental) KG/Year | F (Fugitive) KG/Year |
|                    |      |       |             |                            | 0.0  | 0.0               | 0.0                    | 0.0                  |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR#: W0106 | Facility Name : Bruscar Bhearna Teoranta (Carrowbrowne) | Filename : 31/03/2017 12:34

**SECTION A : PRTR POLLUTANTS**

| OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER |      |        |             |                            | Please enter all quantities in this section in KGs |                   |                        |                      |
|--|------|--------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT  |      | METHOD |             |                            | QUANTITY   |                   |                        |                      |
| No. Annex II   | Name | M/C/E  | Method Code | Designation or Description | Emission Point 1                                   | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
|  |      |        |             |                            | 0.0  | 0.0               | 0.0                    | 0.0                  |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)**

| OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER |                        |        |             |   | Please enter all quantities in this section in KGs |                   |                        |                      |
|--|------------------------|--------|-------------|---|--|-------------------|------------------------|----------------------|
| POLLUTANT  |                        | METHOD |             |   | QUANTITY   |                   |                        |                      |
| Pollutant No.  | Name                   | M/C/E  | Method Code | Designation or Description  | Emission Point 1                                   | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| 306  | COD                    | M      | ALT         | ISO - 17025 - Based pn USEPA approved Hach Method 8000  | 58.583   | 58.583            | 0.0                    | 0.0                  |
| 303  | BOD                    | M      | ALT         | ISO - 17025 - Standard Methods for the Examination of Water and Wastewater, 21ed, 2005                            | 1.567  | 1.567             | 0.0                    | 0.0                  |
| 314  | Fats, Oils and Greases | M      | ALT         | ISO - 17025 - Standard Methods for the Examination of Water and Wastewater, 21ed, 2005                            | 3919.0   | 3919.0            | 0.0                    | 0.0                  |
| 240  | Suspended Solids       | M      | ALT         | ISO - 17025 - Standard Methods for the Examination of Water and Wastewater, 21ed, 2005.                           | 37.423   | 37.423            | 0.0                    | 0.0                  |
| 343  | Sulphate               | M      | ALT         | Based on Sulphate in Waters Effluents and Soils, 2nd Edition (1988), Method E.                                    | 9.45   | 9.45              | 0.0                    | 0.0                  |
| 238  | Ammonia (as N)         | M      | ALT         | Salicylate method based on Methods for the examination of water and associated materials, Ammonia in waters, 1981 | 0.117  | 0.117             | 0.0                    | 0.0                  |
|  |                        |        |             |   | 0.0  | 0.0               | 0.0                    | 0.0                  |
|  |                        |        |             |   | 0.0  | 0.0               | 0.0                    | 0.0                  |
|  |                        |        |             |   | 0.0  | 0.0               | 0.0                    | 0.0                  |
|  |                        |        |             |   | 0.0  | 0.0               | 0.0                    | 0.0                  |
|  |                        |        |             |   | 0.0  | 0.0               | 0.0                    | 0.0                  |
|  |                        |        |             |   | 0.0  | 0.0               | 0.0                    | 0.0                  |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

**SECTION A : PRTR POLLUTANTS**

| POLLUTANT        |      | METHOD      |             |                            | QUANTITY   |                   |                        |
|------------------|------|-------------|-------------|----------------------------|--|-------------------|------------------------|
| RELEASES TO LAND |      | METHOD USED |             |                            | Please enter all quantities in this section in KGs |                   |                        |
| No. Annex II     | Name | M/C/E       | Method Code | Designation or Description | Emission Point 1                                   | T (Total) KG/Year | A (Accidental) KG/Year |
|                  |      |             |             |                            | 0.0  | 0.0               | 0.0                    |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)**

| POLLUTANT        |      | METHOD      |             |                            | QUANTITY   |                   |                        |
|------------------|------|-------------|-------------|----------------------------|--|-------------------|------------------------|
| RELEASES TO LAND |      | METHOD USED |             |                            | Please enter all quantities in this section in KGs |                   |                        |
| Pollutant No.    | Name | M/C/E       | Method Code | Designation or Description | Emission Point 1                                   | T (Total) KG/Year | A (Accidental) KG/Year |
|                  |      |             |             |                            | 0.0  | 0.0               | 0.0                    |

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Please enter all quantities on this sheet in Tonnes

0

| Transfer Destination | European Waste Code | Hazardous | Quantity (Tonnes per Year) | Description of Waste   | Waste Treatment Operation | Method Used |             | Location of Treatment | Licence/Permit No of Next Destination Facility<br>Name and Licence/Permit No of Recoverer/Disposer | Address of Next Destination Facility<br>Name and Address of Recoverer/Disposer             | Name and License / Permit No. and Address of Final Recoverer/ Disposer (HAZARDOUS WASTE ONLY) | Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY) |
|----------------------|---------------------|-----------|----------------------------|--|---------------------------|-------------|-------------|-----------------------|--|--|---|--|
|                      |                     |           |                            |  |                           | M/C/E       | Method Used |                       |  |  |   |  |
|                      |                     |           |                            |  |                           |             |             |                       | Duffy Tyre Recycling Ltd, Broker licence IRE/G245/11, Site licence WFP-DL-010-018-01               | Tonyhabboc, Newtowncunningham, Co. Donegal, Ireland  |   |  |
| Within the Country   | 16 01 03            | No        | 18.74                      | end-of-life tyres  | R12                       | M           | Weighed     | Offsite in Ireland    | Bama Waste ,PI Ref 10/1472   | Carrowbrowne, Headford Road, Galway, Ireland   |   |  |
| Within the Country   | 17 01 07            | No        | 4764.63                    | Rubble / Inert Material  | R12                       | M           | Weighed     | Onsite of genera      | MSM Recycling, WFP-TN-11-0003-02   | Birr, Co Offaly, Ireland   |   |  |
| Within the Country   | 16 01 03            | No        | 206.16                     | end-of-life tyres  | R12                       | M           | Weighed     | Offsite in Ireland    |  |  |   |  |
| Within the Country   | 17 08 02            | No        | 103.1                      | gypsum-based construction materials other than those mentioned in 17 08 01 | D5                        | M           | Weighed     | Offsite in Ireland    | Envirogrid Ltd, WP4 Drehid Waste Management  | Donegal Road, Pettigo, Co. Donegal, Ireland  |   |  |
| Within the Country   | 19 05 01            | No        | 750.89                     | non-composted fraction of municipal and similar wastes                     | R12                       | M           | Weighed     | Offsite in Ireland    | Facility, W0201-01   | Drehid, Co. Kildare, Ireland   |   |  |
| To Other Countries   | 19 12 01            | No        | 9318.46                    | Mixed Paper  | R12                       | M           | Weighed     | Abroad                | Peute Papier Recycling ,DO 02.2017 MDO Recycling UK Ltd (Broker), NSO/544843/B                     | 11 Alvaston Business Park , Middlewich Road , Nantwich , Cheshire CW5 6PF , United Kingdom |   |  |
| To Other Countries   | 19 12 01            | No        | 2105.7                     | Mixed Paper  | R12                       | M           | Weighed     | Abroad                | IRE/G069/08 TFS Registration No  | Grant House, Stafford Park   |   |  |
| Within the Country   | 19 12 01            | No        | 141.1                      | Multigrade paper   | R12                       | M           | Weighed     | Offsite in Ireland    | Northwood Recycling Ltd, Broker licence: IRE/G282/12   | 12, Telford, Shropshire TF3 3BJ, United Kingdom  |   |  |
| Within the Country   | 19 12 01            | No        | 2560.52                    | Cardboard - OCC  | R12                       | M           | Weighed     | Offsite in Ireland    | Agnail Ltd, Broker Panda Waste (Broker), Irish TFS Brokers licence number IRE/G040/12              | Ballmucken Industrial Estate, Ballmucken, Portlaoise, Laois, Ireland                       |   |  |
| To Other Countries   | 19 12 01            | No        | 328.4                      | Cardboard - OCC  | R12                       | M           | Weighed     | Abroad                |  | Grant House, Stafford Park   |   |  |
| To Other Countries   | 19 12 01            | No        | 404.18                     | Shredded Office Paper  | R12                       | M           | Weighed     | Abroad                | Northwood Recycling Ltd, Broker licence: IRE/G282/12   | 12, Telford, Shropshire TF3 3BJ, United Kingdom  |   |  |
| To Other Countries   | 19 12 01            | No        | 428.84                     | Cardboard - OCC  | R12                       | M           | Weighed     | Abroad                | Peute Papier Recycling ,DO 02.2017 MDO Recycling UK Ltd (Broker), NSO/544843/B                     | 11 Alvaston Business Park , Middlewich Road , Nantwich , Cheshire CW5 6PF , United Kingdom |   |  |
| To Other Countries   | 19 12 01            | No        | 666.32                     | Cardboard - OCC  | R12                       | M           | Weighed     | Abroad                | IRE/G069/08 TFS Registration No  | Grant House, Stafford Park   |   |  |
| Within the Country   | 19 12 01            | No        | 751.76                     | Cardboard - OCC  | R12                       | M           | Weighed     | Offsite in Ireland    | Galway Metal Recycling, WR/05  | Oranmore , Co. Galway , Ireland  |   |  |
| Within the Country   | 19 12 02            | No        | 1240.66                    | Mixed scrap metal  | R12                       | M           | Weighed     | Offsite in Ireland    |  |  |   |  |
| To Other Countries   | 19 12 02            | No        | 50.7                       | Steel cans (alu)   | R12                       | M           | Weighed     | Abroad                | Novellis, BL6802IU   | 11N, United Kingdom  |   |  |
| Within the Country   | 19 12 02            | No        | 126.08                     | Steel Cans   | R12                       | M           | Weighed     | Offsite in Ireland    | Agnail Ltd, Broker   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| To Other Countries   | 19 12 02            | No        | 18.48                      | Steel cans (alu)   | R12                       | M           | Weighed     | Abroad                | WRC Recycling ,IRE/G068/08   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| To Other Countries   | 19 12 02            | No        | 257.8                      | steel cans   | R12                       | M           | Weighed     | Abroad                | WRC Recycling ,IRE/G068/08   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| To Other Countries   | 19 12 02            | No        | 50.52                      | steel cans   | R12                       | M           | Weighed     | Abroad                | Peute Papier Recycling ,DO 02.2017 MDO   | 11 Alvaston Business Park , Middlewich Road , Nantwich , Cheshire CW5 6PF , United Kingdom |   |  |
| Within the Country   | 19 12 02            | No        | 11.02                      | steel cans   | R12                       | M           | Weighed     | Offsite in Ireland    | Galway Metal Recycling, WR/05  | Oranmore , Co. Galway , Ireland  |   |  |
| To Other Countries   | 19 12 02            | No        | 122.48                     | steel cans   | R12                       | M           | Weighed     | Abroad                | Boost Recycling Ltd, IRE/G082/15   | CB25 0AN, United Kingdom   |   |  |
| Within the Country   | 19 12 02            | No        | 68.24                      | steel cans (alu)   | R12                       | M           | Weighed     | Offsite in Ireland    | Green Dragon Recycling Ltd, IRE/G074/15  | Caherlag, Glanmire, Co. Cork, Ireland  |   |  |
| Within the Country   | 19 12 04            | No        | 24.22                      | jazz plastic   | R12                       | M           | Weighed     | Offsite in Ireland    | Leinster Environmental, WP 2008/06   | Clermont Business Park , Haggardstown , Dundalk , Co. Louth, Ireland                       |   |  |
| Within the Country   | 19 12 04            | No        | 28.72                      | Hard Plastic   | R12                       | M           | Weighed     | Offsite in Ireland    | Leinster Environmental, WP 2008/06   | Clermont Business Park , Haggardstown , Dundalk , Co. Louth, Ireland                       |   |  |
| Within the Country   | 19 12 04            | No        | 24.4                       | Clear plastic film   | R12                       | M           | Weighed     | Offsite in Ireland    | Leinster Environmental, WP 2008/06   | Clermont Business Park , Haggardstown , Dundalk , Co. Louth, Ireland                       |   |  |
| To Other Countries   | 19 12 04            | No        | 193.62                     | Clear plastic film   | R12                       | M           | Weighed     | Abroad                | WRC Recycling ,IRE/G068/08   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| Within the Country   | 19 12 04            | No        | 17.84                      | plastic  | R12                       | M           | Weighed     | Offsite in Ireland    | Leinster Environmental, WP 2008/06   | Clermont Business Park , Haggardstown , Dundalk , Co. Louth, Ireland                       |   |  |
| To Other Countries   | 19 12 04            | No        | 182.08                     | plastic  | R12                       | M           | Weighed     | Abroad                | WRC Recycling ,IRE/G068/08   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| To Other Countries   | 19 12 04            | No        | 138.94                     | Clear plastic film   | R12                       | M           | Weighed     | Abroad                | WRC Recycling ,IRE/G068/08   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| To Other Countries   | 19 12 04            | No        | 976.76                     | Plastic Bottles - PET  | R12                       | M           | Weighed     | Abroad                | WRC Recycling ,IRE/G068/08   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| To Other Countries   | 19 12 04            | No        | 227.92                     | Hard Plastic   | R12                       | M           | Weighed     | Abroad                | WRC Recycling ,IRE/G068/08   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| Within the Country   | 19 12 04            | No        | 24.68                      | HDPE Plastic Bottles   | R12                       | M           | Weighed     | Offsite in Ireland    | Environmental, Broker Licence IRE/AG161/15   | House, Scilly, Kinsale, Co. Cork, Ireland  |   |  |
| To Other Countries   | 19 12 04            | No        | 467.34                     | Plastic JAZZ   | R12                       | M           | Weighed     | Abroad                | WRC Recycling ,IRE/G068/08   | Auchans Road , Houston , Johnstone Renfrewshire , PA6 7EE , United Kingdom                 |   |  |
| To Other Countries   | 19 12 04            | No        | 47.22                      | Plastic JAZZ   | R12                       | M           | Weighed     | Abroad                | Nevis Resource Ltd, IRE/G422/16  | Belfast, United Kingdom  |   |  |
| Within the Country   | 19 12 04            | No        | 24.74                      | HDPE Plastic Bottles   | R12                       | M           | Weighed     | Offsite in Ireland    | Leinster Environmental, WP 2008/06   | Clermont Business Park , Haggardstown , Dundalk , Co. Louth, Ireland                       |   |  |

|                    |          |     |          |   |     |   |          |                    |  |  |
|--------------------|----------|-----|----------|---|-----|---|----------|--------------------|--|--|
| To Other Countries | 19 12 04 | No  | 334.88   | HDPE Plastic Bottles  | R12 | M | Weighted | Abroad             | WRC Recycling ,IRE/G068/08   | Auchans Road ,Houston ,Johnstone ,Renfrewshire ,PA6 7EE ,United Kingdom                        |
| Within the Country | 19 12 05 | No  | 1366.16  | glass   | R12 | M | Weighted | Offsite in Ireland | Rehab Glassco Ltd,Waste Permit No. WFP-KE-08-0357-01   | Unit 4 Osberstown Industrial Park,Caragh Road,Naas,County Kildare,Ireland                      |
| Within the Country | 19 12 07 | No  | 6.5      | wood other than that mentioned in 19 12 06  | R12 | M | Weighted | Offsite in Ireland | Bama Waste (Composting Facility),EPA Licence 106/2   | Carrowbrowne,Headford Road,Galway,,Ireland   |
| Within the Country | 19 12 05 | No  | 83.62    | glass   | R3  | M | Weighted | Offsite in Ireland | John Gannon Concrete Ltd,Permit Number WFP-WM-2009-0007-01                                   | Quarry,Hazelwood ,Kilbeggan,County Westmeath,Ireland   |
| Within the Country | 19 12 12 | No  | 13.78    | General Waste - Domestic  | R3  | M | Weighted | Offsite in Ireland | Greenstar Limerick,W0082-03  | Townland,Dock Road,Limerick,,Ireland   |
| Within the Country | 19 12 07 | No  | 724.26   | Timber (C & D)  | R3  | M | Weighted | Offsite in Ireland | Rathroeen Landfill,W0067-02  | Ballina,,,County Mayo,Ireland  |
| Within the Country | 19 12 07 | No  | 143.8    | Timber (C & D)  | R3  | M | Weighted | Offsite in Ireland | Drehid Waste Management Facility,W0201-01  | Drehid,,,,Co. Kildare,Ireland  |
| Within the Country | 19 12 07 | No  | 332.02   | Timber (C & D)  | R3  | M | Weighted | Offsite in Ireland | East Galway Landfill,W0178-02  | Kilconnell,,,County Galway,Ireland   |
| Within the Country | 19 12 07 | No  | 2140.15  | Timber (C & D) other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in                             | R1  | M | Weighted | Offsite in Ireland | OCR Waste Management,WFP-RN-10-0001-01   | Roxboro,,,Co Roscommon,,Ireland  |
| Within the Country | 19 12 12 | No  | 11874.34 | 19 12 11  | R12 | M | Weighted | Offsite in Ireland | East Galway Landfill,W0178-02  | Kilconnell,,,County Galway,Ireland   |
| Within the Country | 19 12 10 | No  | 1498.08  | combustible waste (refuse derived fuel)   | R3  | M | Weighted | Offsite in Ireland | Wilton Waste Recycling Ltd,WFP-CN-10-0005-01   | Kilfagh,Crossbarrough,Ball yjamesduff,County Cavan,Ireland                                     |
| Within the Country | 19 12 10 | No  | 729.48   | combustible waste (refuse derived fuel)   | R1  | M | Weighted | Offsite in Ireland | Pacon Waste & Recycling Ltd,Not applicable   | Park,Balbriggan,Co Dublin,,Ireland   |
| Within the Country | 19 12 12 | No  | 3672.94  | General Waste   | R12 | M | Weighted | Offsite in Ireland | Clean Ireland Refuse and Recycling Co Ltd,W0253/01   | Park,Quinn Road Business Park,Ennis,Co Clare,Ireland   |
| Within the Country | 19 12 12 | No  | 1789.57  | General Waste - Domestic  | D5  | M | Weighted | Offsite in Ireland | Rathroeen Landfill,W0067-02  | Ballina,,,County Mayo,Ireland  |
| Within the Country | 19 12 12 | No  | 4191.16  | General Waste - Domestic  | D5  | M | Weighted | Offsite in Ireland | Drehid Waste Management Facility,W0201-01  | Drehid,,,,Co. Kildare,Ireland  |
| Within the Country | 19 12 12 | No  | 28969.2  | General Waste - Domestic  | R12 | M | Weighted | Offsite in Ireland | Indaver Ireland,EPA Licence W0167-02   | Carranstown ,Duleek,County Meath,,Ireland  |
| Within the Country | 19 12 12 | No  | 508.1    | General Waste - Domestic  | R12 | M | Weighted | Offsite in Ireland | Greenstar Limerick,W0082-03  | Ballykeefe Townland,Dock Road,Limerick,,Ireland  |
| Within the Country | 19 12 12 | No  | 141.52   | General Waste - Domestic  | R12 | M | Weighted | Offsite in Ireland | Indaver Ireland,EPA Licence W0167-02   | Carranstown ,Duleek,County Meath,,Ireland  |
| Within the Country | 20 01 08 | No  | 1228.4   | food waste  | R3  | M | Weighted | Offsite in Ireland | Thornton's Recycling Centre,EPA 44-2   | Road,,Ballyfermot,Dublin 10,Ireland  |
| Within the Country | 20 01 08 | No  | 2217.62  | food waste  | R3  | M | Weighted | Offsite in Ireland | O'Toole Compost,W0284-01   | Ballintran ,Fenagh,Co Carlow,,Ireland  |
| Within the Country | 20 01 08 | No  | 8006.22  | Food Waste  | R3  | M | Weighted | Offsite in Ireland | Donegal Envirogrind Ltd,WP4 Local Farmers,Not Applicable                                     | Donegal Road,Pettigo,Co. Donegal,,Ireland  |
| Within the Country | 20 01 08 | No  | 2885.01  | compost   | R1  | M | Weighted | Offsite in Ireland | Textile Recycling Ltd,Permit Number WPR-014  | Various Addresses,,,,,Ireland  |
| Within the Country | 20 01 11 | No  | 0.7      | Clothing/Textiles   | R12 | M | Weighted | Offsite in Ireland | Global Material Recycling (Electrical Waste Management Site),Licence Number WFP-DS-090012-01 | 648 Jordanstown Drive ,Greenogue Rathcoole Co. Dublin ,Greenogue Rathcoole Co. Dublin ,Ireland |
| Within the Country | 20 01 35 | Yes | 68.2     | Scrap Electronics - Mixed discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components | R4  | M | Weighted | Offsite in Ireland | WFP-DS-090012-01   | Jordanstown Drive ,Greenogue, Rathcoole ,Co. Dublin ,Ireland                                   |
| Within the Country | 20 01 35 | Yes | 16.98    | 60.7 mixed municipal waste (recyclables unsorted)   | D5  | M | Weighted | Offsite in Ireland | WEEE Ireland,0 Dillon  | 648 Jordanstown Drive ,Greenogue, Rathcoole ,Co. Dublin ,Ireland                               |
| Within the Country | 20 03 01 | No  | 792.67   | mixed municipal waste (fines)   | R12 | M | Weighted | Offsite in Ireland | WFP/KY/10/001  | Kerry,,Ireland   |
| Within the Country | 20 03 01 | No  | 650.52   | mixed municipal waste (fines)   | D5  | M | Weighted | Offsite in Ireland | Drehid Waste Management Facility,W0201-01  | Drehid,,,,Co. Kildare,Ireland  |
| Within the Country | 20 03 01 | No  | 25.22    | mixed municipal waste (fines)   | D5  | M | Weighted | Offsite in Ireland | Rathroeen Landfill,W0067-02  | Ballina,,,County Mayo,Ireland  |
| Within the Country | 20 03 01 | No  | 51.46    | mixed municipal waste (fines)   | R3  | M | Weighted | Offsite in Ireland | O'Toole Compost,W0284-01   | Ballintran ,Fenagh,Co Carlow, Ireland  |
| Within the Country | 20 03 01 | No  | 28.68    | mixed municipal waste (fines)   | D5  | M | Weighted | Offsite in Ireland | Rathroeen Landfill,W0067-02  | Ballina,,,County Mayo,Ireland  |
| Within the Country | 20 03 01 | No  | 29.18    | street-cleaning residues  | D5  | M | Weighted | Offsite in Ireland | Drehid Waste Management Facility,W0201-01  | Drehid,,,,Co. Kildare,Ireland  |
| Within the Country | 20 03 04 | No  | 36.06    | septic tank sludge  | R12 | M | Weighted | Offsite in Ireland | Drehid Waste Management Facility,W0201-01  | Drehid,,,,Co. Kildare,Ireland  |
| To Other Countries | 19 12 04 | No  | 17.76    | plastic and rubber  | R12 | M | Weighted | Abroad             | Local Farmers,Not Applicable   | Various Addresses,,,,,Ireland  |
|                    |          |     |          |   |     |   |          |                    | Nevis Resource Ltd,IRE/G422/16   | Belfast,,,,,United Kingdom   |

\* Select a row by double-clicking the Description of Waste then click the delete button

[Link to previous years waste data](#)  
[Link to previous years waste summary data & percentage change](#)  
[Link to Waste Guidance](#)





**Appendix C:**

EMP & Schedule of Targets and Objectives 2016 / 2017



# Schedule of Targets and Objectives & Environmental Management Plan 2016 / 2017

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## Submitted March 2017

WASTE LICENCE  
REGISTRATION NO: WL106-2

LICENSEE: **BRUSCAR BHEARNA TEORANTA  
(BARNA RECYCLING)**

LOCATION OF ACTIVITY: CARROWBROWNE,  
HEADFORD ROAD,  
CO. GALWAY.

ATTENTION: Michelle McKimm / Helen Boyce  
EPA - Office of Environmental Enforcement  
CASTLEBAR OFFICE

PREPARED BY: MR. CAMPBELL FINNIE  
(Barna Recycling)

CONTRIBUTIONS FROM: MR. SEAN CURRAN  
(Managing Director/Facility Manager)  
MR. MARK BEVANS  
(Operations Manager)  
MR DEREK BRIEN  
(Health & Safety Manager)  
MR. JOHNNY CURRAN  
(Deputy Facility Manager)

## **INTRODUCTION**

As a requirement of Waste Licence WL106-2 Barna Recycling requires to have available a Schedule of Targets and Objectives as stated in condition 2.3.2 of our Waste Licence which states:-

*“The objectives shall be specific and measurable. The Schedule shall address a five year period as a minimum. The schedule shall include a time scale for achieving the objectives and targets and shall comply with any other written guidance issued by the Agency.”*

This report was initially submitted on 18<sup>th</sup> December 2001 and has been updated on an annual basis since then.

The submission for 2017 has been kept consistent in format with previous submissions.

## SECTION 1: Update on current list of Targets and Objectives

The next few pages of the report detail the Targets and Objectives that were set out by the company for 2016 and provides updates in detail as to exactly what actual progress was made for each action during the year and whether we achieved the targets or not. A summary of the results is included at the end of this section:-

| TARGET / OBJECTIVE  | Owner   | Completion Target | Current Status | 2016 Progress Update   |
|---|---|-------------------|----------------|--|
| OPERATIONS - Complete implementation of integrated management systems to incorporate Quality, Environment and Health / Safety and get certification to ISO 9001, ISO 14001 and ISO 18001 standards              | Facility Manager<br><br>Health & Safety Manager                     | Q4 2016           | ONGOING        | The ISO 18001 and 9001 systems have been developed and all procedures have been written. The next phase will be a roll out of training in 2017 with a view to full implementation sometime in 2018. ISO 14001 was successfully maintained during 2016 which was a major goal and we will integrate the three systems together within the next 18 months. |
| OPERATIONS - Devise plan and tonnage model to ensure the composting facility is capable of accepting and processing 20,000 tonnes of material per annum running and tonnage increases year on year through 2018 | Operations Manager<br><br>Facility Manager<br><br>Managing Director | Q4 2016           | OPEN           | The composting facility was closed until November 2016 and therefore this target will develop more during 2017.  |
| OPERATIONS - Material Sorting Facility (picking station) – integrate the recently purchased equipment including optical sorting units into the facility to further enhance picking capabilities                 | Operations Manager<br><br>Managing Director                         | Q4 2016           | OPEN           | Minor changes were made to the sorting facility in 2016. A full review and upgrade is scheduled for Q1 2017. At the time of writing this report work had commenced and work is expected to be fully completed on schedule.   |
| OPERATIONS – continue strategy / policy for phasing out older plant and machinery around the site and introducing fresh newer equipment   | Management Team<br>(All)  | Q4 2016           | ONGOING        | This process is ongoing and progress was made during 2016 with the upgrading of our forklifts and loading shovels. Work still needs to be done across the fleet in 2017. A new fitter has been hired late in 2016 to assist in this process.   |
| OPERATIONS – develop a process for the recycling or management of mattresses on site  | Operations Manager  | Q2 2016           | COMPLETE       | This has been successfully completed and we are now in a partnership with First Class Recycling who are a new start up company accepting and processing mattresses for recycling / recovery.   |
| OPERATIONS – carry out improvements to the container loading area to enhance cleaning and maintenance programmes and enhancing the health and safety standards currently in place in this area                  | Operations Manager  | Q3 2016           | COMPLETE       | This was successfully completed during 2017 with addition of new handrails and a daily housekeeping programme.   |

|   |   |         |          |   |
|---|---|---------|----------|---|
| OPERATIONS / HEALTH & SAFETY – review the situation with temporary work staff make decision if this is best practice or not and if we maintain temporary staff we must incorporate them into the company vaccination programme as soon as possible                        | Operations Manager<br><br>Health & Safety Manager | Q3 2016 | COMPLETE | This was reviewed and completed during 2016 and it was agreed to try and reduce Agency staff to a minimum in Q1 2017 and eliminate completely from Q2 2017 onwards.           |
| HOUSEKEEPING – maintain a full cleaning schedule which will see maintenance of the internal sheeting panels in all sheds. Continue until all sheds are complete.  | Operations Manager<br><br>Health & Safety Manager | Q3 2016 | ONGOING  | Really good progress in 2016 and insurance are happy with the progress made. Programme will continue on an ongoing basis through 2017.  |
| HOUSEKEEPING – improve the management of litter and smoking related wastes around the site canteen areas on a daily basis   | Operations Manager<br><br>Health & Safety Manager | Q2 2016 | COMPLETE | Complete – this is managed on a daily basis by a dedicated employee and has seen this issue fully resolved.   |
| HOUSEKEEPING – review housekeeping around the main site office and implement an improvement programme through 2016  | Operations Manager<br><br>Health & Safety Manager | Q4 2016 | COMPLETE | Complete – this is managed on a daily basis by a dedicated employee and has seen this issue fully resolved.   |
| HOUSEKEEPING – implement a self-cleaning housekeeping programme in the site bin storage area  | Operations Manager                                | Q3 2016 | COMPLETE | Complete – this is managed on a daily basis by a dedicated employee and has seen this issue fully resolved.   |
| IT SYSTEMS – implement a self-weighing facility into the site weighbridges for specific transactions only   | IT Manager  | Q3 2016 | COMPLETE | This process is complete the software and controls and completely installed. The process will be put into practice during 2017.   |
| TRANSPORT - Increase pay by weight capability across all fleet and implement a system that offers capability to run from the ‘back of truck’ through to ‘invoicing’. Priority to ensure all domestic vehicles have full weighing capability by July 1 <sup>st</sup> 2016. | Management Team (All)                             | Q3 2016 | COMPLETE | Complete – this process is fully installed despite the delay in the legal implementation of pay by weight our trucks and systems are fully in place to allow it to take place |
| TRANSPORT – develop a ‘data management team’ before pay by weight introduction who are responsible for monitoring live data and problem management  | Transport Manager                                 | Q2 2016 | COMPLETE | Complete – a team of 3 staff have been hired and fully trained in a permanent capacity during 2016  |
| TRAINING - put another member of staff through the FAS Waste Management Course  | Facility Manager                                  | Q4 2016 | CLOSED   | Incomplete – this was not completed during 2016.  |
| ENVIRONMENTAL – continue to develop the energy and power saving programmes within the waste transfer station and all areas of the site to reduce the usage during both operational and non-operating hours  | Facility Manager<br><br>Operations Manager        | Ongoing | ONGOING  | This was successfully managed during 2016 with electricity usage on site being reduced from 2,006,951 units to just over 1,400,000 units.                                     |

|  |                                       |         |          |   |
|--|---------------------------------------|---------|----------|---|
| ENVIRONMENTAL – continue to review the Irish recycling market to identify possible recycling options for various materials within the Country to reduce our carbon footprint   | Facility Manager                      | Ongoing | ONGOING  | Ongoing – this issues is always ongoing but progress continued during 2016 with work starting on supporting a new local mattress recycling centre, a partnership with Glassco agreed for 2017, plasterboard recycling now being done in Ireland and increase in dealings with both Pacon and Wiltons in relation to RDF materials |
| ENVIRONMENTAL – complete installation of new odour management system within the composting process   | Managing Director                     | Q2 2016 | COMPLETE | Complete – the new Gicom composting system for managing odour has been fully installed and operational in November 2016   |
| SALES – continue to implement a plan to introduce brown bins to all our domestic customers. Training programmes for the domestic customer should be developed as part of this project.   | Sales Manager                         | Q3 2016 | ONGOING  | Ongoing – brown bins were introduced too more communities in 2016 and a plan is already in place to increase this further in February 2017  |
| SALES – introduce a programme of school visits and presentation to target the younger generation interested in recycling   | Sales Manager                         | Q2 2016 | COMPLETE | Complete – a new school based recycling presentation has been developed and is delivered on an as required basis to interested schools in the region  |
| BUSINESS - Permitted site – once this site is in a proper condition prepare a plan for the EPA with a proposal / application to have this site integrated into the EPA licence   | Facility Manager<br>Managing Director | Q4 2016 | ONGOING  | Ongoing – work has begun on preparing this site to EPA standard and integration into the EPA licence should be completed by the end of 2017   |
| BUSINESS - Storage Hub / Car Park – carry out construction now that a site has been identified which will see a compound built off site to store / control empty bins or skips. This will not be a waste storage area it will be solely for storing the company’s stock of empty skips or bins awaiting distribution   | Management Team<br>(All)              | Q4 2016 | COMPLETE | Complete – the truck parking area has been constructed and is now in use on site. A skip storage area is also in place adjacent to the weighbridge.   |
| TRAINING – continue to support all staff training to ensure we meet health and safety and other compliance standards as well as develop our workforce – main focus in 2016 to be on manual handling refresher courses and training for drivers and helpers on best practice on the backs of trucks with bins lifts etc | Management Team<br>(All)              | Q4 2016 | COMPLETE | Complete – all identified training for 2016 was completed which included refreshers of machine training and manual handling. In addition bin lift safety training, pay by weight training, tacograph and handheld training along with general tool box talks were all completed   |

## **SUMMARY of 2016 PERFORMANCE**

The company performed very well towards achieving its list of targets and objectives for 2016 and we achieved most of our major goals that we set ourselves or in the least made progress on them.

Some examples of the major goals accomplished during 2016 are below:

- The retention and re-awarding of our ISO14001 accreditation was vitally important for the company
- The installation and investment in the new odour management system for the composting plant will ensure this process can operate successfully without risk of complaints and should also assist the processing times within the plant
- Significant reduction in electricity usage on site
- We found a non-landfill solution for the recycling of a problem material in mattresses and in the process supported a local start-up company to get this business up and running
- A process has been implemented to reduce the requirement for agency staff on site and the use of our own employees will benefit production efficiency greatly
- General improvements throughout the site in relation to housekeeping standards and a process going forward that will ensure these new standards are maintained
- A self-weighing option has been added to the site weighbridges which may be used in future to benefit efficiency at the site entrance / exit
- The upgrades to our fleet are complete to ensure a smooth transition to pay by weight when this process is implemented
- The software changes needed to support a pay by weight system are in place and ready to use when this process is fully implemented
- Continued to develop relationships in the community with local schools
- Implemented all staff training identified for 2016
- Upgrading of our facilities with new garage and truck park

The above list demonstrates that again during the reporting year the company paid attention to the specific targets it set itself and shows that the targets being set are realistic and important to the development of the company. We have improved in many areas ranging for our operations, to our collection process, our data management and IT, our health & safety, our environmental performance and in the development of our staff. These are all important areas as we need to develop the company in a way that makes business and financial sense as well and continuing to ensure our EPA facility, our staff and our fleet also develop at the same time.

Overall we are very pleased to have achieved significant progress on our objectives for 2016.

Any goals not achieved or only partly achieved in 2016 will be included again for 2017 as they are still important to our future plans.

## **SECTION 2: New list of Targets and Objectives for 2017**

### **New Targets & Objectives for 2017**

The targets and objectives for 2017 are listed below. As advised by the EPA previously we have tried to identify actions that can be easily measured and also tried to ensure that most of the actions are related to issues out with our Waste Licence.

Any targets not achieved during 2016 have automatically been included again below. Targets / actions which are relevant on an ongoing basis but are deemed important enough to keep being included in this document are also listed. We feel it important to document them even although they will permanently be on the document to ensure focus is kept on achieving these targets.

Since our new Investor came on board in 2014 the business has gone through a period of review and is now in a position where we have defined major areas that need to be developed to ensure the business can run successfully for many years to come. Therefore the list of objectives are tied closely to our business goals and all are significant projects that will have a major impact on the future of the company.

The company operates based on five fundamentals which are the cornerstone of our day to day business activities. The fundamentals are:

- Safety
- Compliance
- Productivity
- Preventative Maintenance
- Housekeeping

These fundamentals are key to everything we implement or manage in our business and as a result the following new targets and objectives have been set for 2017:-



***New list of Targets and Objectives for 2017:***

| <b>TARGET / OBJECTIVE</b>  | <b>Owner</b>                                      | <b>Completion Target</b> | <b>Current Status</b> |
|--|---|--------------------------|-----------------------|
| OPERATIONS / HEALTH & SAFETY – review fire safety at the site and implement recommendations of independent report produced at the start of 2017 by Tobin Consulting Engineers  | Management Team                                   | Q4 2017                  | OPEN                  |
| OPERATIONS / HEALTH & SAFETY – carry out upgrades to operations staff canteens and include shower rooms within the new set-up  | Operations Manager<br><br>Health & Safety Manager | Q3 2017                  | OPEN                  |
| OPERATIONS – amend air flow options in compost pasteurisation tunnels to increase efficiency of the back end process   | Compost Manager                                   | Q2 2017                  | OPEN                  |
| TRANSPORT – carry out a full review of all skip containers and ensure they are all brought to the new NWCPO condition requirements before being re-used  | Transport Manager<br><br>Weighbridge Manager      | Q2 2017                  | OPEN                  |
| TRANSPORT – carry out training on all aspects of safety and good work practice on the roads for all vehicle drivers and helpers  | Transport Manager<br><br>Health & Safety Manager  | Q1 2017                  | OPEN                  |
| TRANSPORT – carry out training for all drivers and helpers on the rules and regulations behind driver working hours and driving time   | Transport Manager                                 | Q1 2017                  | OPEN                  |
| TRANSPORT / IT – carry out training on the Use of our new handheld units for all drivers and helpers to ensure a smooth transition to our paper free docket free system when moving to pay by weight                             | Transport Manager<br><br>IT Manager               | Q1 2017                  | OPEN                  |
| ENVIRONMENT – find a regular and sustainable market for hard plastics which have been a problem to move over the last couple of years on a consistent basis to one buyer who will accept the quality of material that we produce | Facility Manager                                  | Q2 2017                  | OPEN                  |
| ENVIRONMENT – implement the proposed agreement with Glassco to provide a central collection point for glass collections in the Galway area and assist bulk transfer to their facility in NAAS                                    | Facility Manager<br><br>Operations Manager        | Q1 2017                  | OPEN                  |
| HEALTH & SAFETY – carry out an assessment throughout the organisation of ergonomics and implement findings recommended for each employee before the end of 2017  | Health & Safety Manager                           | Q3 2017                  | OPEN                  |

|  |   |         |         |
|--|---|---------|---------|
| OPERATIONS - Complete implementation of integrated management systems to incorporate Quality, Environment and Health / Safety and get certification to ISO 9001, ISO 14001 and ISO 18001 standards   | Facility Manager<br>Health & Safety Manager                 | Q4 2018 | OPEN    |
| OPERATIONS - Devise plan and tonnage model to ensure the composting facility is capable of accepting and processing 20,000 tonnes of material per annum running and tonnage increases year on year through 2018  | Operations Manager<br>Facility Manager<br>Managing Director | Q4 2017 | OPEN    |
| OPERATIONS - Material Sorting Facility (picking station) – integrate the recently purchased equipment including optical sorting units into the facility to further enhance picking capabilities  | Operations Manager<br>Managing Director                     | Q2 2017 | OPEN    |
| OPERATIONS – continue strategy / policy for phasing out older plant and machinery around the site and introducing fresh newer equipment (to include mobile plant)  | Management Team (All)                                       | Q4 2017 | OPEN    |
| OPERATIONS / HEALTH & SAFETY – review the situation with temporary work staff make decision if this is best practice or not and if we maintain temporary staff we must incorporate them into the company vaccination programme as soon as possible   | Operations Manager<br>Health & Safety Manager               | Q1 2017 | OPEN    |
| IT SYSTEMS – implement a self-weighing facility into the site weighbridges for specific transactions only  | IT Manager  | Q3 2017 | OPEN    |
| IT SYSTEMS – review Genysys software for company reports and request update reports to be released to cover all departmental requirements  | IT Manager<br>Management Team                               | Q2 2017 | OPEN    |
| TRANSPORT - Implement pay by weight capability across all fleet and implement a system that offers capability to run from the ‘back of truck’ through to ‘invoicing’. This will only be implemented when legislation that requires pay by weight as a requirement by the Government is fully implemented | Management Team (All)                                       | Q4 2017 | OPEN    |
| ENVIRONMENTAL – continue to develop the energy and power saving programmes within the waste transfer station and all areas of the site to reduce the usage during both operational and non-operating hours   | Facility Manager<br>Operations Manager                      | Ongoing | ONGOING |
| ENVIRONMENTAL – continue to review the Irish recycling market to identify possible recycling   | Facility Manager  | Ongoing | ONGOING |

|  |   |         |         |
|--|---|---------|---------|
| options for various materials within the Country to reduce our carbon footprint  |   |         |         |
| SALES – continue to implement a plan to introduce brown bins to all our domestic customers. Training programmes for the domestic customer should be developed as part of this project.   | Sales Manager   | Ongoing | ONGOING |
| SALES – continue programme of school visits and presentation to target the younger generation interested in recycling  | Sales Manager   | Ongoing | ONGOING |
| BUSINESS - Permitted site – once this site is in a proper condition prepare a plan for the EPA with a proposal / application to have this site integrated into the EPA licence   | Facility Manager<br><br>Operations Manager<br><br>Managing Director | Q4 2017 | OPEN    |
| TRAINING – continue to support all staff training to ensure we meet health and safety and other compliance standards as well as develop our workforce – main focus in 2016 to be on manual handling refresher courses and training for drivers and helpers on best practice on the backs of trucks with bins lifts etc | Management Team (All)   | Q4 2017 | OPEN    |

## **Environmental Management Plan**

Condition 2.3.2.2 of our Waste Licence (WL106-2) requires us to submit an Environmental Management Plan. The aim of this EMP is to provide a timescale for achieving the schedule of targets and objectives and the name of the people responsible for implementing these actions. As per last year's submission we are submitting this document as a joint document to cover the requirements for both the EMP and the Schedule of Targets and Objectives. The table above outlines the company's goals and who is responsible for implementing them during 2017 and these goals cover operational, environmental, health and safety, IT and transport issues and any other related activities which we think need some improvement.

We believe the targets set out above are the key elements to the company progressing again in 2017 and completion of the targets set above will see us improve our facility and our business. Targets have been kept measurable and where possible are unrelated to conditions of our waste licence but clearly show the company's desire for continual improvement in all aspects of the business.

In summary of the table above the targets and goals set for 2017, if achieved will see us achieve the following:

- Improve our Management Systems by working towards ISO 9001 and 18001 approval
- Have an improved picking station / sorting line in place
- Have a one shift operation without the need for temporary Agency staff
- Have significantly increased volumes of food waste being managed / recycled on site
- Have a more efficient back end pasteurisation system in the composting facility
- Improve fire safety standards on site
- Management of a waste storage plan for all stockpiles at the facility
- Improve the maintenance and performance of plant and equipment on site
- Improve canteen and changing facilities for the staff on site
- Have an upgraded and fully compliant skip stock on site
- Improve training levels of all our staff across all functions

Barna Recycling are happy with the contents of this document and believe the targets set out above for the new reporting year are relevant to the overall goals of the company.

New targets can / will be added to this document as the year progresses or at the request of the EPA.

### **Management Support**

Barna Recycling submit this document which as required by our EPA licence outlines progress made against all the targets set out for 2016 and redefines new targets and objectives for 2017. This document has been reviewed by the Management Team and all members of the team have given input into the areas being specifically targeted for 2017.

We believe the targets / objectives cover all aspects of our business and will ensure the company develops in all aspects during 2017. The goal of continuous improvement / development of the site and our performance are the key factors in setting these targets.

Comments from the Agency on the content of the report are welcome and new targets can be added or changes made at their request if anything within the report is insufficient or inadequate.

### **Progress Reports**

Any queries regarding progress against the targets and objectives set out above for 2017 can be requested from our Facility Manager at all times throughout the reporting period.

Copies of this report are available on request from the Barna Recycling.

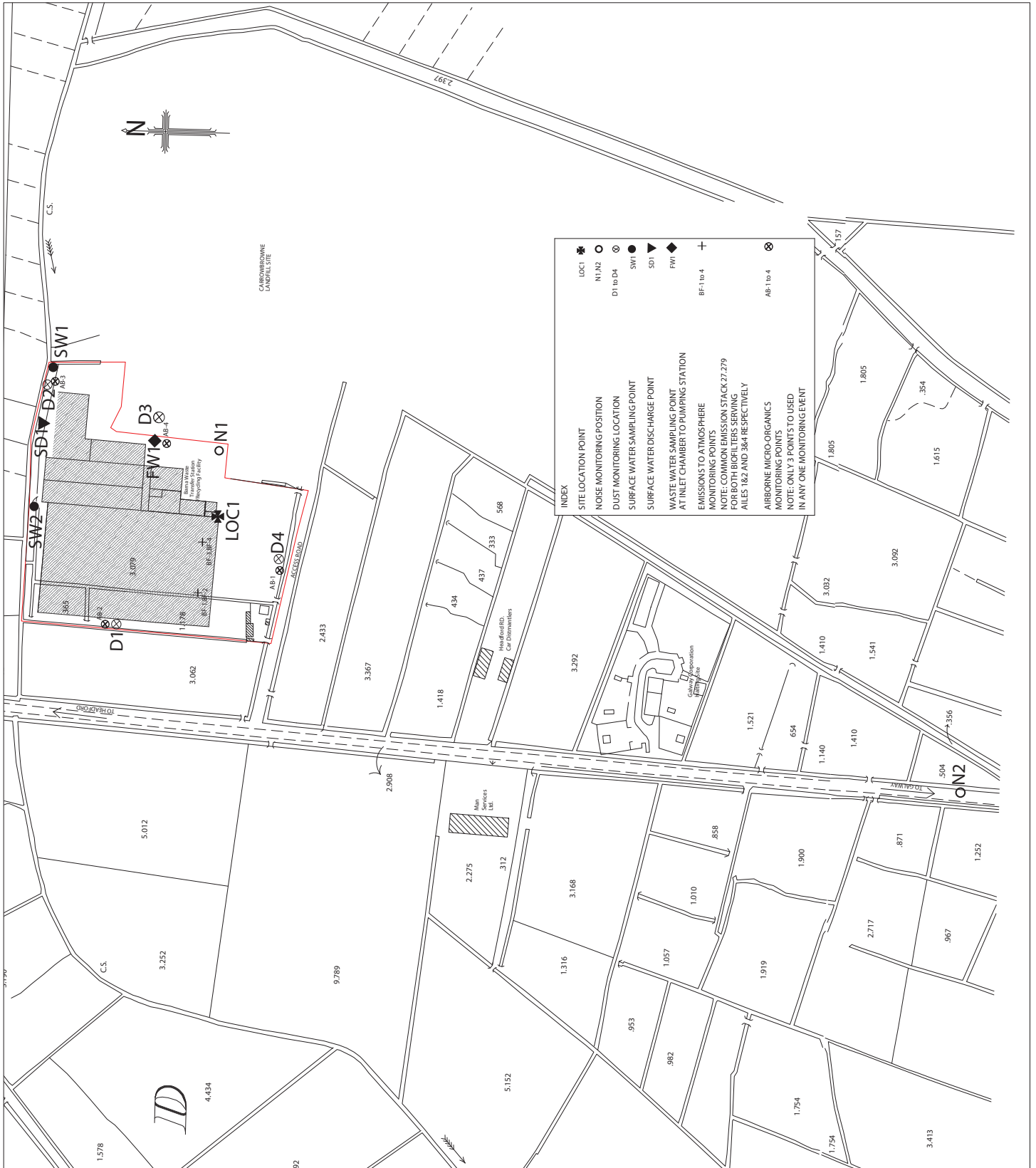
### **Next Submission**

The next submission of this report is due to be submitted before 31<sup>st</sup> March 2018.



**Appendix D:**

Map of site monitoring locations




**INDEX**

|           |  |
|-----------|--|
| LOC1      | SITE LOCATION POINT  |
| N1, N2    | NOISE MONITORING POSITION  |
| D1 to D4  | DUST MONITORING LOCATION   |
| SW1       | SURFACE WATER SAMPLING POINT   |
| SD1       | SURFACE WATER DISCHARGE POINT  |
| FW        | WASTE WATER SAMPLING POINT AT INLET CHAMBER TO PUMPING STATION               |
| BF-1 to 4 | EMISSIONS TO ATMOSPHERE MONITORING POINTS                                    |
| AB-1 to 4 | MONITORING POINTS FOR BOTH BIOPILLERS SERVING AILES 1&2 AND 3&4 RESPECTIVELY |
|           | MONITORING POINTS FOR AIRBORNE MICRO-ORGANISMS                               |

NOTE: ONLY 3 POINTS TO BE USED IN ANY ONE MONITORING EVENT

| Issue | Date      | Des           | By   | CHK    |
|-------|-----------|---------------|------|--------|
| A     | July 2005 | Issued to EPA | K.G. | E.B.P. |

|   |                                     |   |                 |
|---|-------------------------------------|---|-----------------|
| Client: <b>BARNA WASTE LTD.</b>   | Prepared by: <b>K.G.</b>            |  <b>TOBIN</b><br>Consulting, Civil and Structural Engineers,<br>Fairgreen House, Fairgreen Road,<br>Galway, Ireland.<br>Tel: +353-(0)91-565211<br>Fax: +353-(0)91-565398<br>e-mail: info@tobin.ie www.tobin.ie | Issue: <b>A</b> |
| Project: <b>Recycling depot &amp; composting plant Carrowbrowne, Co. Galway</b> | Checked: <b>E.M.P.</b>              |   |                 |
| Date: <b>JULY 2005</b>  | Project Director: <b>J.P. KELLY</b> | Drawing No.: <b>1015-6001</b>   |                 |
| Title: <b>LOCATION OF MONITORING POINTS</b>                                     | Scale: <b>@ A2: 1:2000</b>          |   |                 |

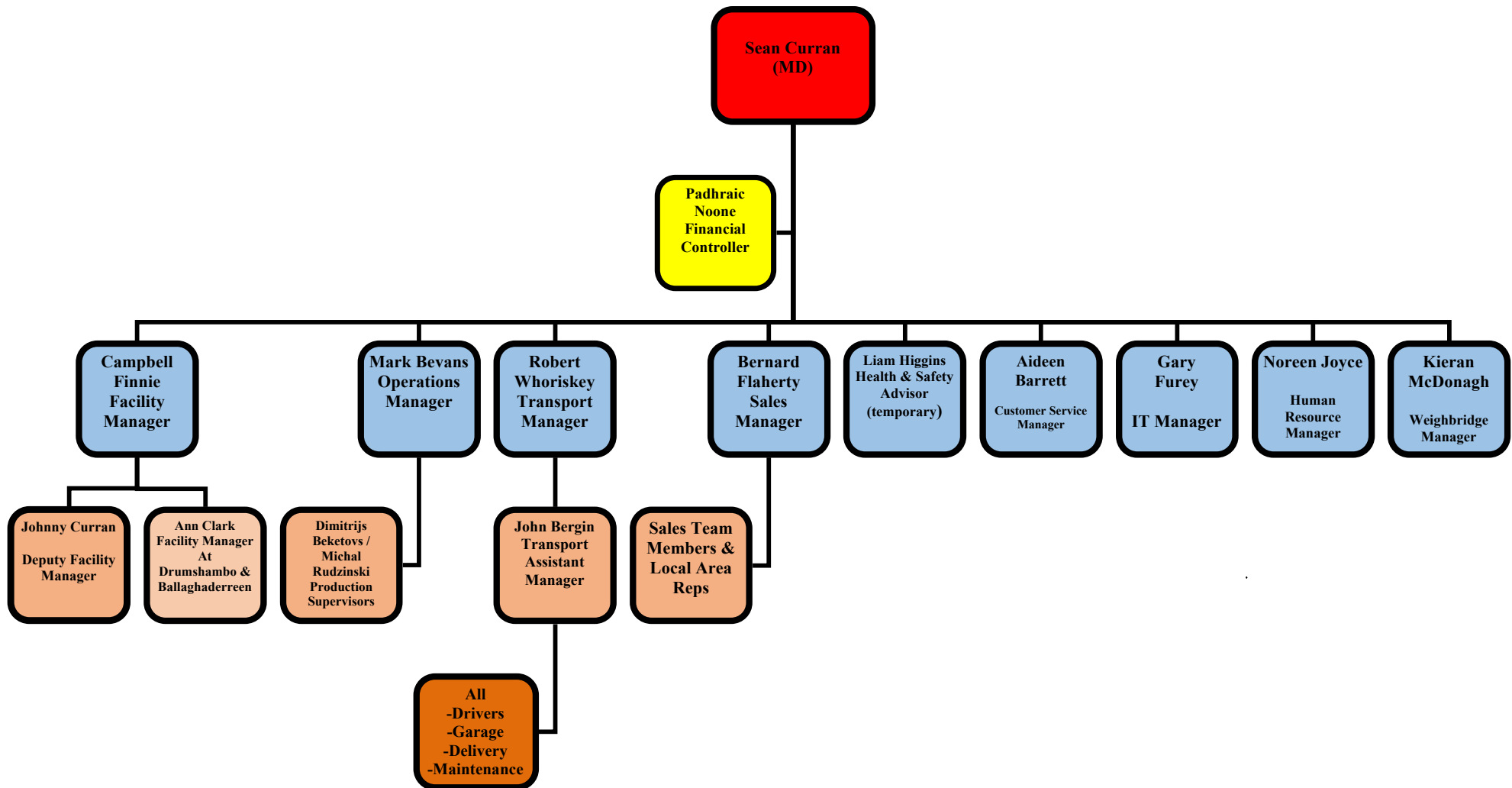


**Appendix E:**

Current Company Management Structure (March 2017)

# BARNA WASTE

## Company Management Structure



BW-OPS-001  
REV 22  
16/03/2017