

BARNA WASTE

ANNUAL

ENVIRONMENTAL

REPORT

For the Period 1st January 2008 – 31st December 2008

**WASTE LICENCE
REGISTRATION NO:** WL106-02

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

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

ATTENTION: MR. KEALAN REYNOLDS
EPA, REGIONAL INSPECTORATE
JOHN MOORE ROAD, CASTLEBAR
CO. MAYO.

PREPARED BY: MR. CAMPBELL FINNIE
(Barna Waste)

CONTRIBUTIONS FROM: MR. SEAN CURRAN
(Managing Director/Facility Manager)
MR. PADHRAIC NOONE
(Finance Manager)
MR. DAMIEN MONAGHAN
(Operations Manager)
MR. BASIL TUKE
(Health & Safety Manager)
MR. CORMAC O'DONNELL
(Transport Manager)
MR. NIALL JORDAN
(Deputy Facility Manager)
EURO ENVIRONMENTAL SERVICES.
CONNEMARA LABORATORIES LTD.
P.J. TOBIN CONSULTING ENGINEERS

1.0 Introduction

The following is the Annual Environmental Report (AER) for **Barna Waste** for the period **1st January 2008 to 31st December 2008** for the Waste Transfer / Recycling Facility at Carrowbrowne, Headford Road, Co. Galway.

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 31st 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 Waste 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 (BARNÁ WASTE)

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 Waste and other waste contractors, local authorities to collect waste from domestic/commercial/industrial sectors.
2. Within the facility heavy plant enables the segregation of the waste, (ie. a manual picking station, a ballistic separating machine, magnets, edicurrents, balers, a shredder, a pre-shredding machine, loading shovels, forklifts (with forks), forklifts (with clamp attachments), grab machine, 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. C&D materials are currently being processed outside of the facility because of the space required by the machinery. Barna Waste plan to construct a building dedicated to the handling of C&D type waste and planning permission was granted for this building during 2006. Current 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. A final decision will be made early in 2009 regarding final plans for moving the C&D waste processing indoors.
5. A new composting building has been constructed at the site and work inside the building is still ongoing. This building will house composting bays for the processing of biodegradable waste. The new building has five bays two of which will be used for compost processing and one will be used for receiving the virgin waste prior to processing. The other two bays are already operational and are being used to process timber and metal. These processes were introduced during 2006 and allow us to process the timber and metal in a segregated area where the machinery can be stored and stockpiles processed on a daily basis.
6. 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. Only the non recyclable fractions are then transferred into our own vehicles for landfill disposal

- 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 separator, magnet, edicurrent and manual picking station allow us to produce segregated recyclable fractions from the original mixed recyclables and send for recycling. Materials currently being recycled via the picking station include paper, newspaper, cardboard, plastic bottles, plastic bags, plastic trays, steel and aluminium. This process is currently able to process around 6 to 7 tonnes of recyclables per hour.
- Separately collected recycling – the company also encourage recycling from our commercial customers and segregated collections are available throughout Connacht. These collections result in collection and recycling of cardboard, paper (various grades) and plastics (various grades). These materials are baled almost immediately and sent for recycling.
- 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).
- Timber processing – as outlined above timber processing has now been taken out of the main transfer station and is processed in its own bay in the new composting building. The material is processed using two machines a waste reducer (pre-shredder) and a timber shredder which shreds the segregated clean timber to a size which can be sent off site for recycling.
- Metal recycling – as outlined above metal processing has now been taken out of the main transfer station and is processed in its own bay in the new composting building. We have a grab machine and baler in this area specifically used for baling this material into a form that can be easily sold as scrap to the UK or Irish metal markets.
- 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 Waste 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

This section of the report was intended to give the reader a summary of the material types and the processing procedures used by Barna Waste 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 Waste 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

WASTE TYPE	MAXIMUM TONNES PER ANNUM
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
TOTAL	166,000 tonnes

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 – 2008)

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 results for all years are included therefore results for reporting periods 2002, 2003, 2004, 2005, 2006, 2007 and the current reporting period of 2008 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.

Waste In / Out Results for 2002 Period

Table 2.4.1: Waste Incoming during period 1st January 2002 – 31st December 2002

The following table outlines the waste that was received on site at the Barna Waste 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%
Total	39,195.17	

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

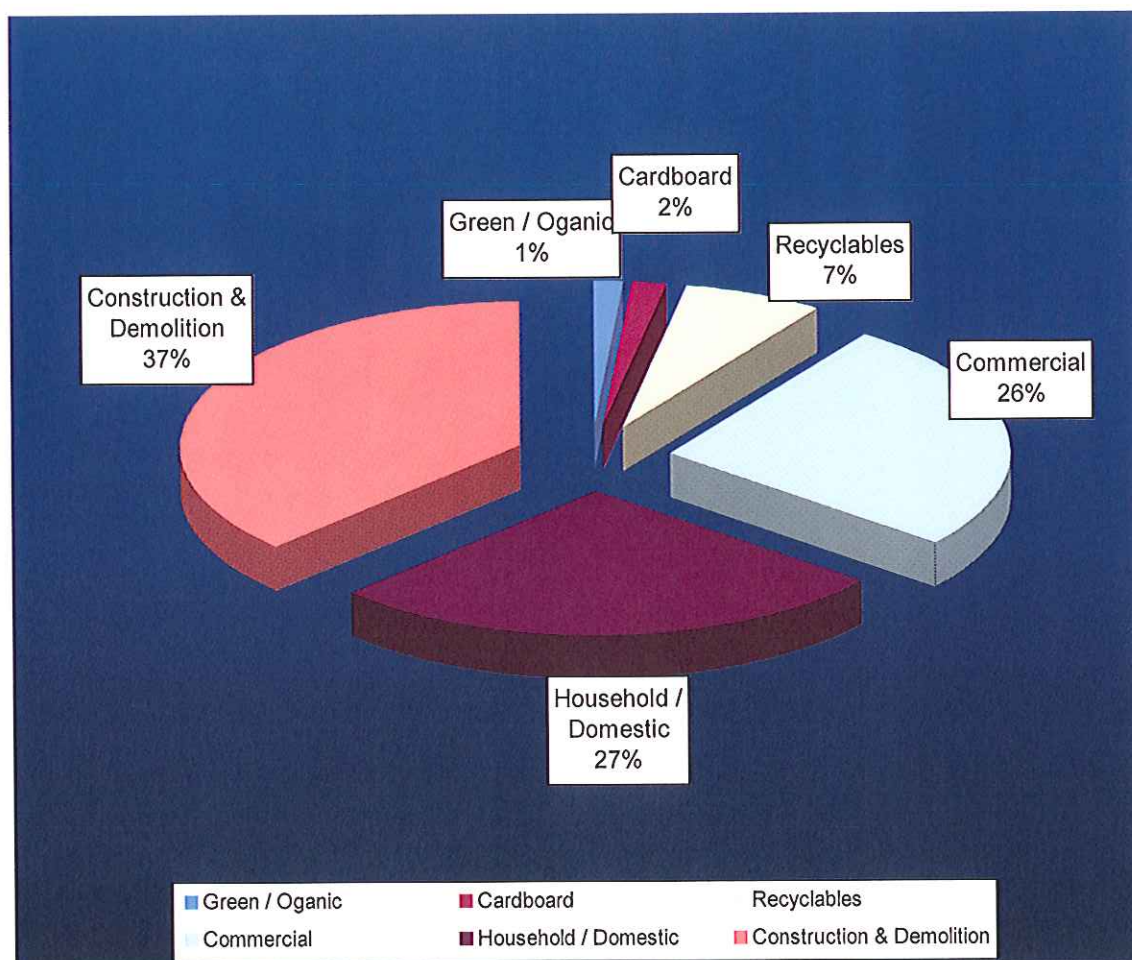


Figure 2.4.2: Percentage Breakdown of Waste Received on site from 1st January – 31st December 2002

Table 2.4.3: Total Wastes Outgoing 1st January 2002 – 31st 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%
Total	39,121.65	

Figure 2.4.2 illustrates the percentage breakdown of materials recovered or removed off site.

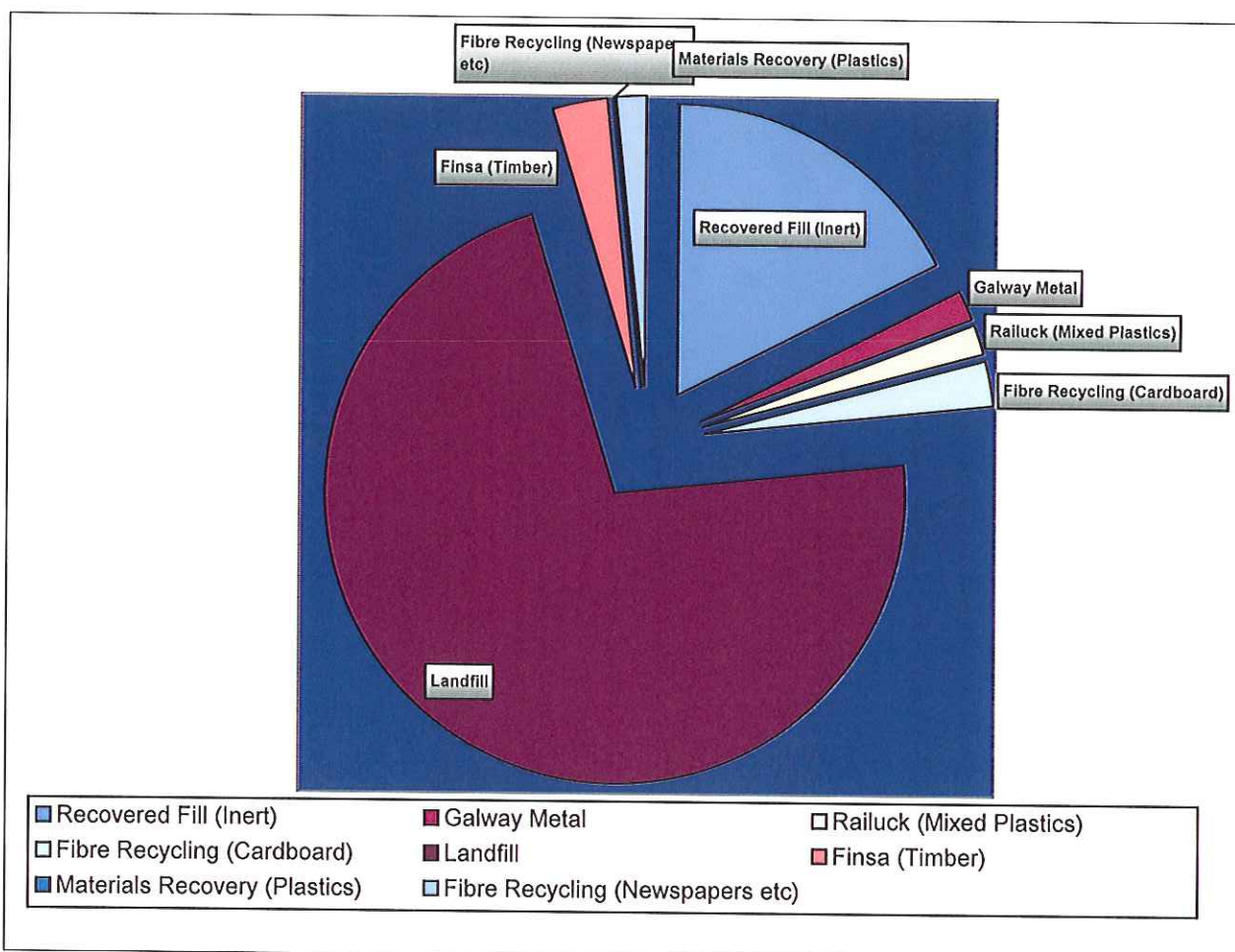


Figure 2.4.4:
Percentage Breakdown of Waste outgoing from 1st January 2002 to 31st December 2002

Waste In / Out Reports for 2003

Waste In 2003

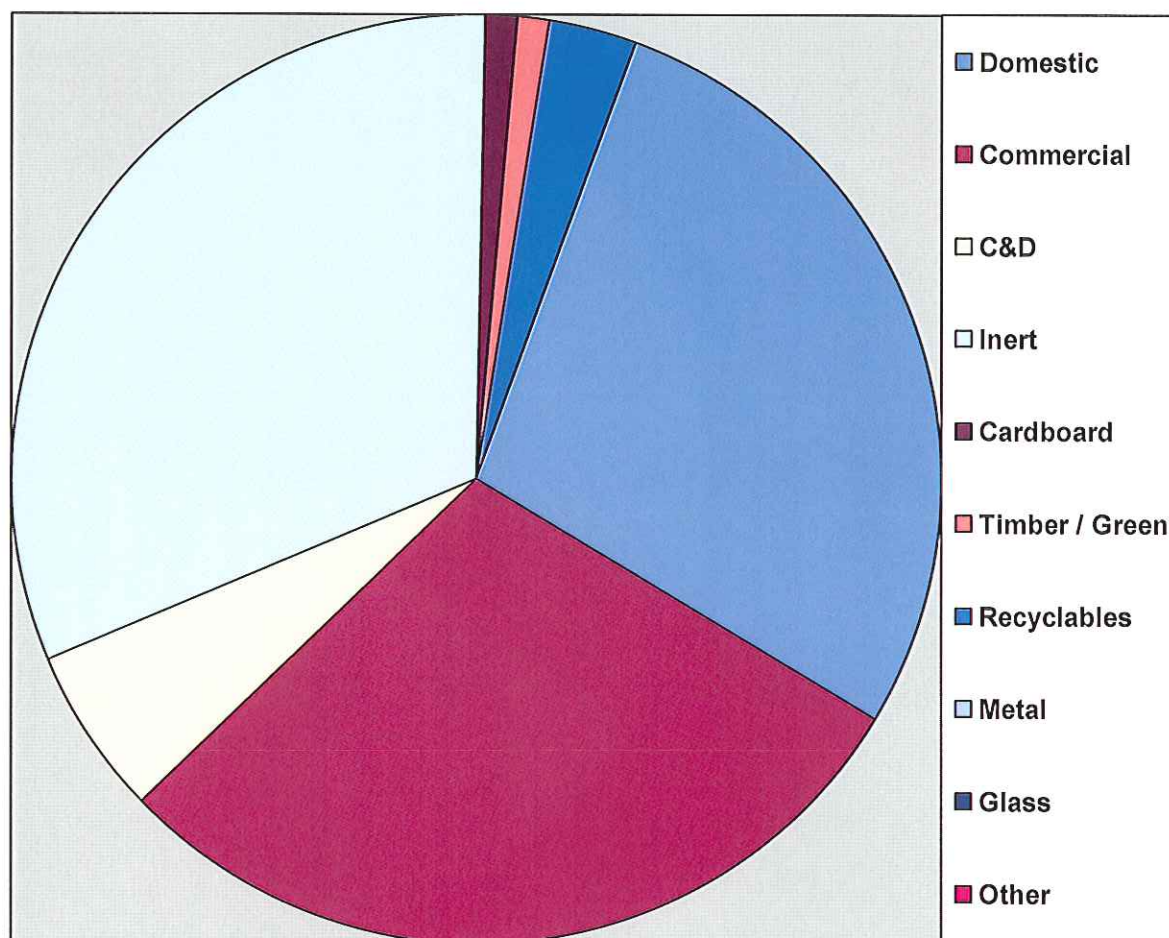


Figure 2.4.5:
Breakdown of Waste Received on site from 1st January – 31st December 2003

WASTE TYPE	WASTE IN (tonnes per annum)
<i>Domestic</i>	20015.92
<i>Commercial</i>	20663.18
<i>C & 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
TOTAL	71193.08

Table 2.4.3: Total Wastes Incoming 1st January 2003 – 31st December 2003

Waste Out 2003

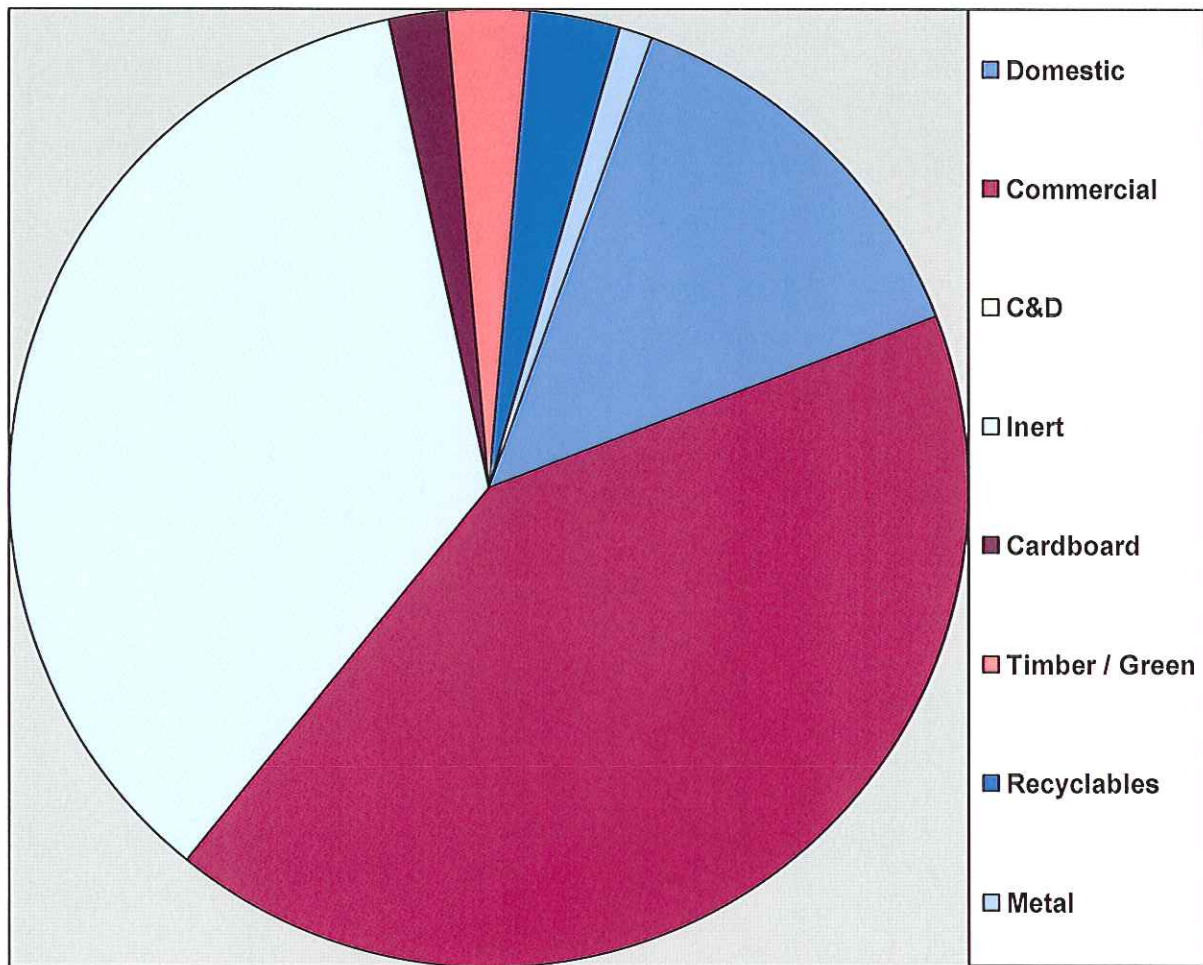


Figure 2.4.6:
Breakdown of Waste going off site for Recovery or Disposal from 1st January – 31st December 2003

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
TOTAL	63,418.72

Table 2.4.7: Total Wastes Outgoing 1st January 2003 – 31st December 2003

WASTE TYPE	RECYCLING (tones 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%
TOTAL	28,210.57	39% of total waste in was recycled for 2003

Table 2.4.8: Recycling waste out details for 1st January – 31st December 2003

Waste In / Out Reports for 2004

Waste In 2004

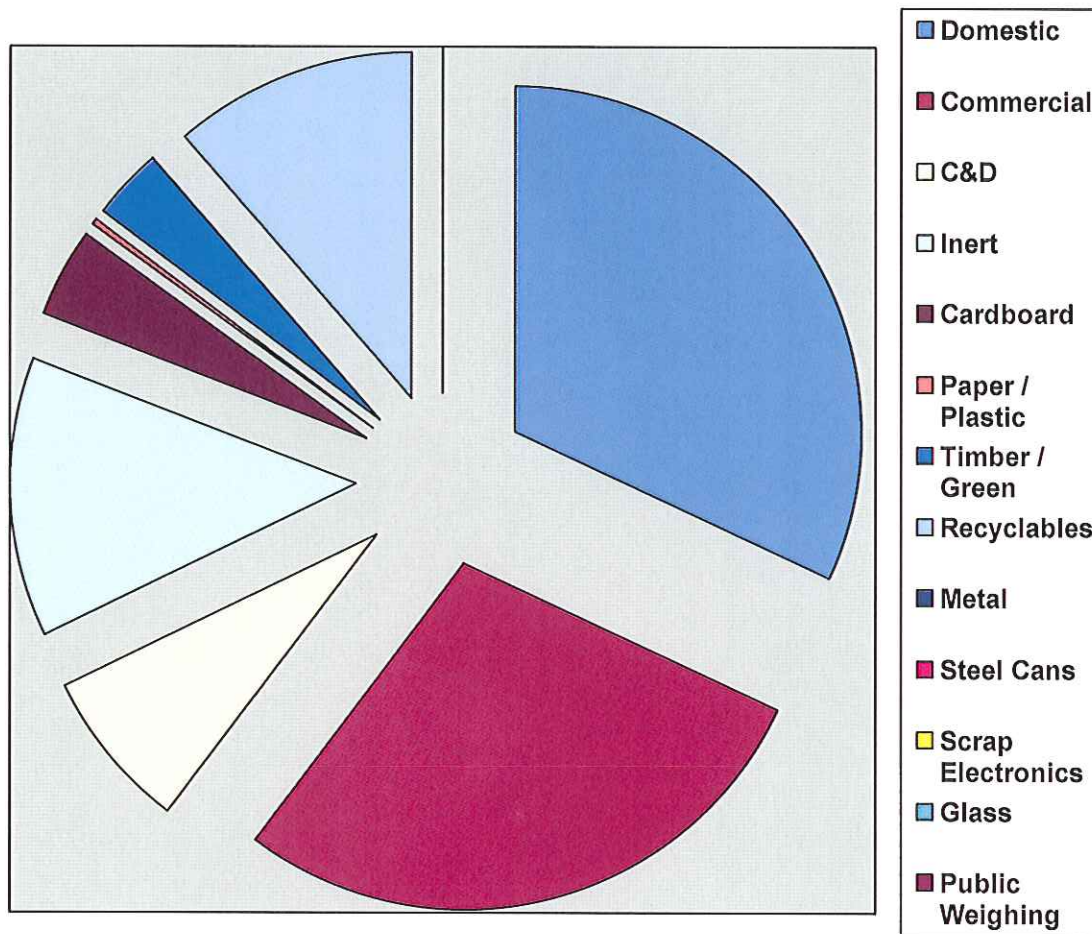


Figure 2.4.9:
Breakdown of Waste Received on site from 1st January – 31st December 2004

WASTE TYPE	WASTE IN (tones per annum)
<i>Domestic</i>	19,796.62
<i>Commercial</i>	17,691.68
<i>C & 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
TOTAL	62,045.20

Table 2.4.10: Total Wastes Incoming 1st January 2004 – 31st December 2004

Waste Out 2004

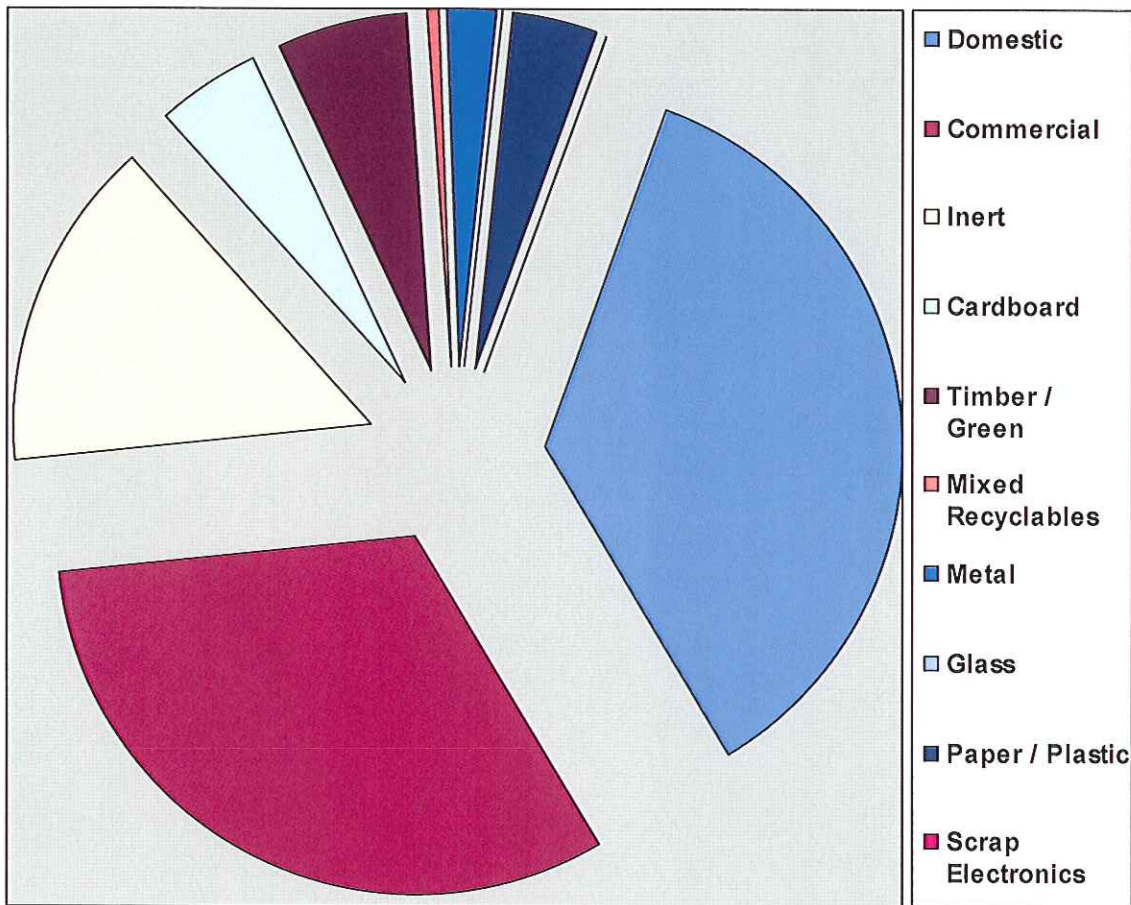


Figure 2.4.11:
Breakdown of Waste going off site for Recovery or Disposal from 1st January – 31st December 2003

WASTE TYPE	WASTE OUT (tones 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
TOTAL	53,789.76

Table 2.4.12: Total Wastes Outgoing 1st January 2003 – 31st 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 Waste also have Batteries collected by Returnbatt and send tyres as required to Crumb Rubber or to Crossmore Transport

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

WASTE TYPE	RECYCLING (tones per annum)	% OF TOTAL RECYCLING
<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%
TOTAL	17,365.95	28% of total waste in was recycled for 2004

Table 2.4.13: Recycling waste out details for 1st January 2004 – 31st December 2004

Waste In / Out Reports for 2005

Waste In 2005

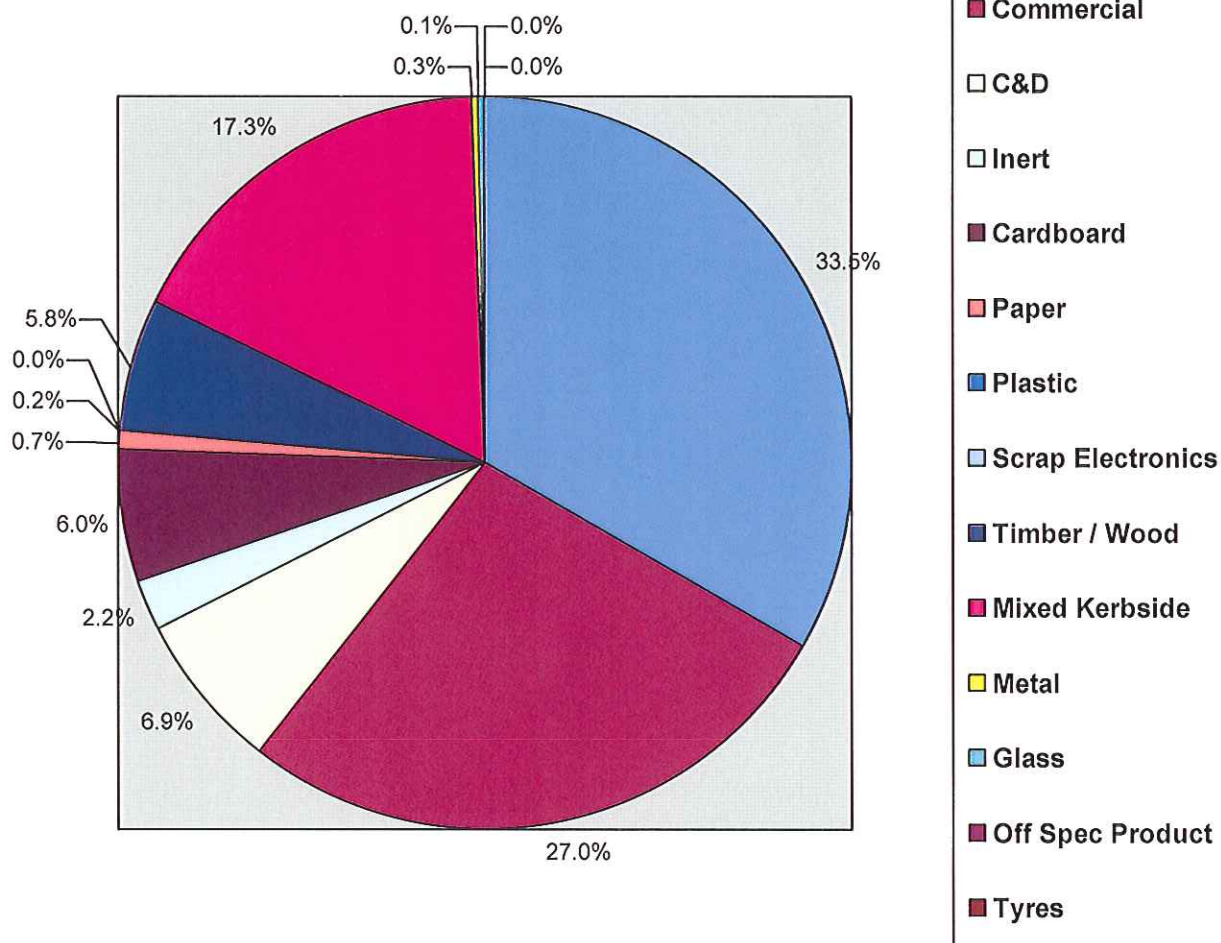


Figure 2.4.14:
Breakdown of Waste Received on site from 1st January 2005 – 31st December 2005

WASTE TYPE	WASTE IN (tones per annum)
<i>EWC 200301 Domestic</i>	22134.78
<i>EWC 200100 Commercial</i>	17874.97
<i>EWC 170100 C & 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
TOTAL	66130.94

Table 2.4.9: Total Wastes Incoming 1st January 2005 – 31st December 2005

Waste Out 2005

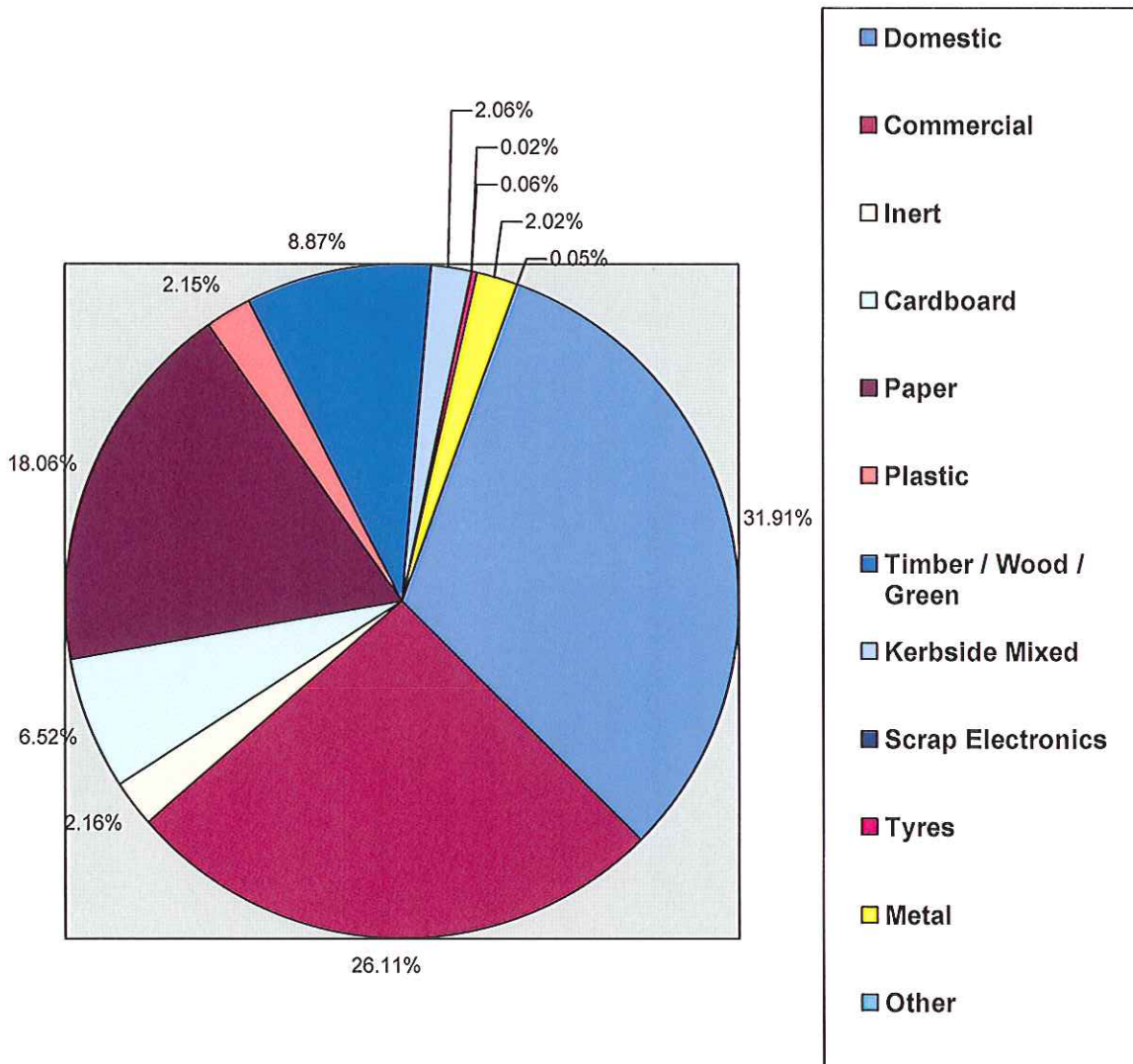


Figure 2.5.0:
Breakdown of Waste going off site for Recovery or Disposal from 1st January 2005 – 31st December 2005

WASTE TYPE	WASTE OUT (tones 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
Other	36.7
TOTAL	67666.01

Table 2.5.0: Total Wastes Outgoing 1st January 2005 – 31st December 2005

2.5.1 Summary of Recycling Outlets used in 2005

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

WASTE TYPE	RECYCLING (tones per annum)	% OF TOTAL RECYCLING
<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%
Other	36.7	Less than 1%
TOTAL	28404.55	43% of total waste in was recycled for 2005

Table 2.5.1: Breakdown of recycling waste out details for 1st January – 31st December 2005

Waste In / Out Reports for 2006

WASTE IN

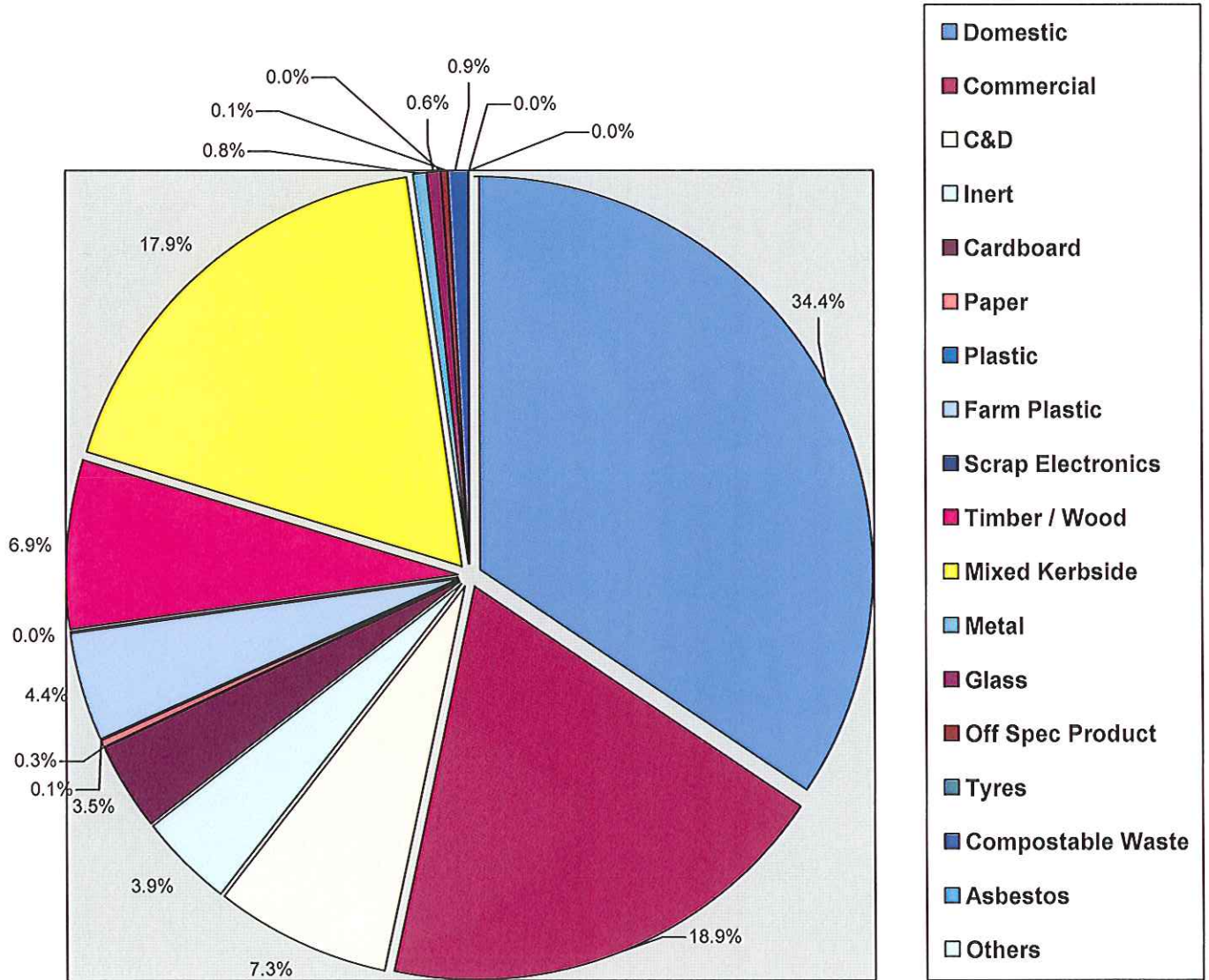


Figure 2.6.0:
Breakdown of Waste Received on site from 1st January 2006 – 31st December 2006

WASTE TYPE	WASTE IN (tones per annum)
<i>EWC 200301 Domestic</i>	29328.22
<i>EWC 200100 Commercial</i>	16095.29
<i>EWC 170100 C & 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>	753.51
<i>EWC 200201 Garden & Park Waste</i>	
<i>EWC 200304 Sludge</i>	
<i>Compostable materials</i>	
<i>EWC 160103 Tyres</i>	59.78
<i>EWC 170605 Asbestos</i>	3.10
<i>Others (Public weighing)</i>	8.45
TOTAL	85146.84

Table 2.6.1: Total Wastes Incoming 1st January 2006 – 31st December 2006

Waste Out 2006

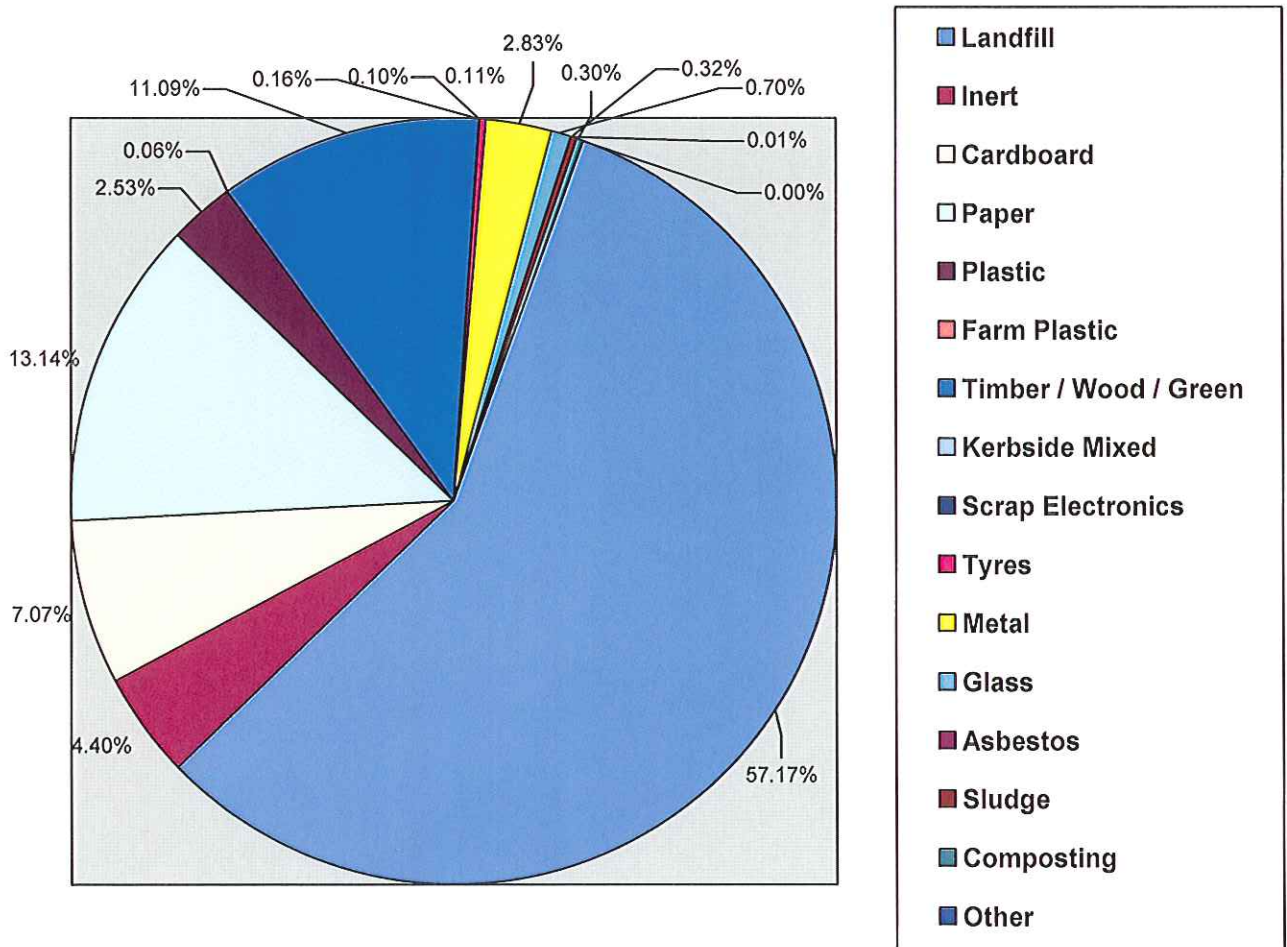


Figure 2.6.2: Breakdown of Waste going off site for Recovery or Disposal from 1st January 2006 – 31st December 2006

WASTE TYPE	WASTE OUT (tones 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
TOTAL	80,032.63

Table 2.6.3: Total Wastes Outgoing 1st January 2006 – 31st December 2006

Breakdown of the recycling elements for 2006:

WASTE TYPE	RECYCLING (tones 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%
TOTAL	34008.39 tonnes	40% of total waste in was recycled for 2006

Table 2.6.4: Breakdown of recycling waste out details for 1st January – 31st December 2006

Waste In / Out Reports for 2007

WASTE IN

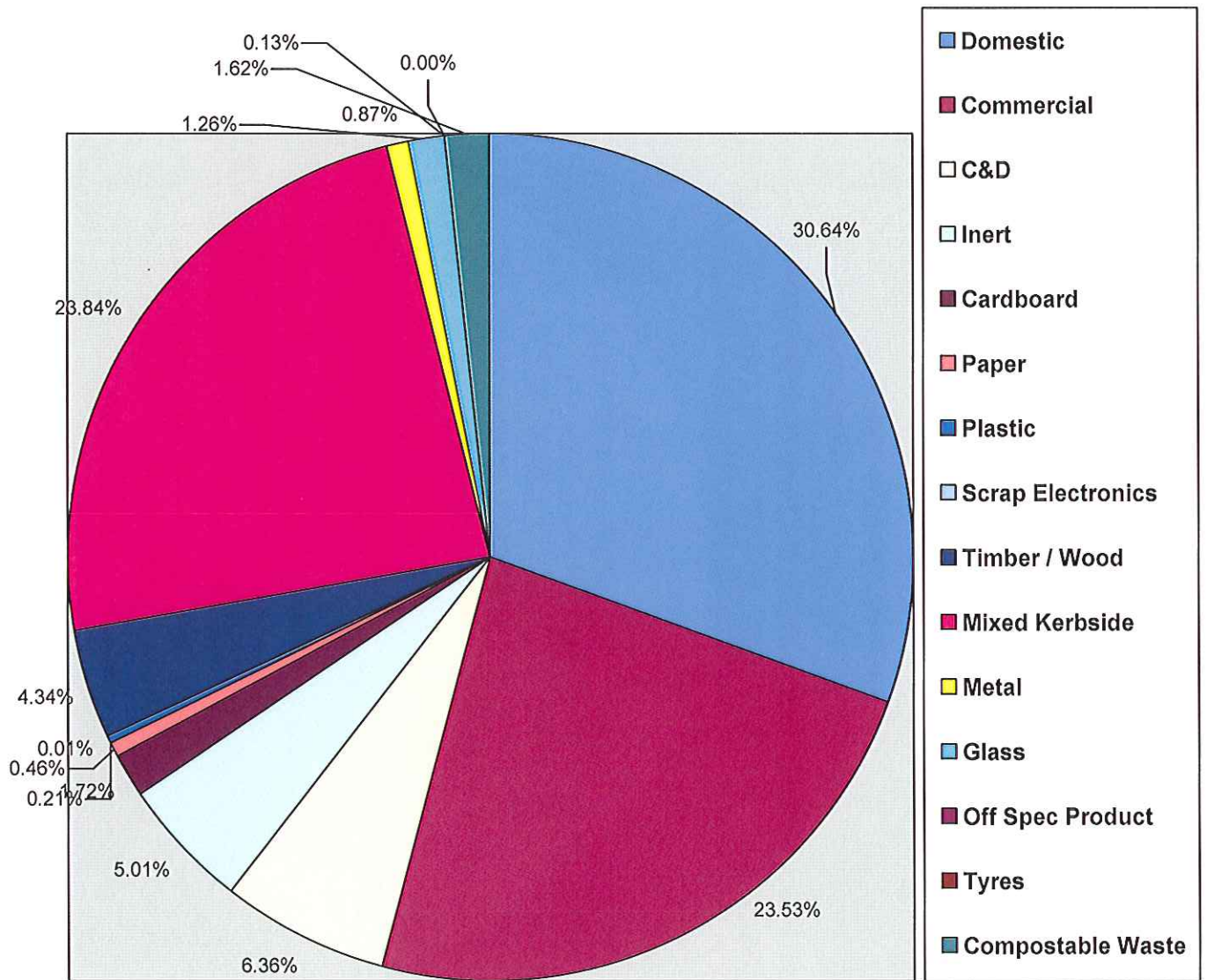


Figure 2.7.0:
Breakdown of Waste Received on site from 1st January 2007 – 31st December 2007

Waste in for 2007: Table of quantities by waste type

WASTE TYPE	WASTE IN (tones per annum)
<i>EWC 200301 Domestic</i>	28840.92
<i>EWC 200100 Commercial</i>	22150.64
<i>EWC 170100 C & 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>	1525.88
<i>EWC 200201 Garden & Park Waste</i>	
<i>EWC 200304 Sludge</i>	
<i>Compostable materials</i>	
<i>EWC 160103 Tyres</i>	120.96
TOTAL	94,131.27

Table 2.7.1: Total Wastes Incoming 1st January 2007 – 31st December 2007

Waste Out 2007

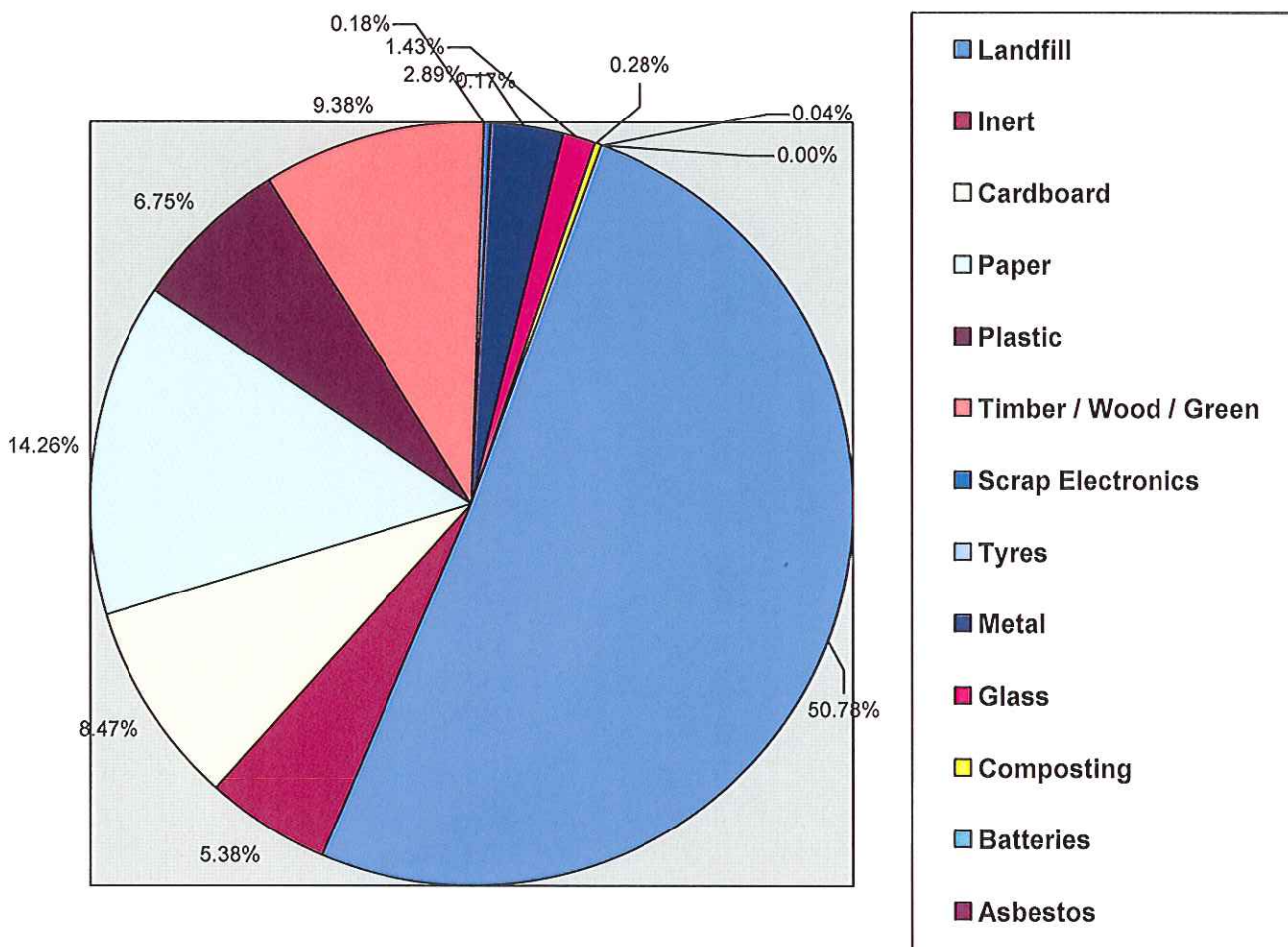


Figure 2.7.2: Breakdown of Waste going off site for Recovery or Disposal from 1st January 2007 – 31st December 2007

Waste out for 2007: Table of quantities by waste type

WASTE TYPE	WASTE OUT (tones 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
TOTAL	88954.99

Table 2.7.3: Total Wastes Outgoing 1st January 2007 – 31st December 2007

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

WASTE TYPE (Recyclable materials only)	RECYCLING (tones per annum)	% OF TOTAL 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%
TOTAL	44,393.05	47% of total waste in was recycled for 2007

Table 2.7.4: Breakdown of recycling waste out details for 1st January 2007 – 31st December 2007

Waste In / Out Reports for 2008

WASTE IN (2008)

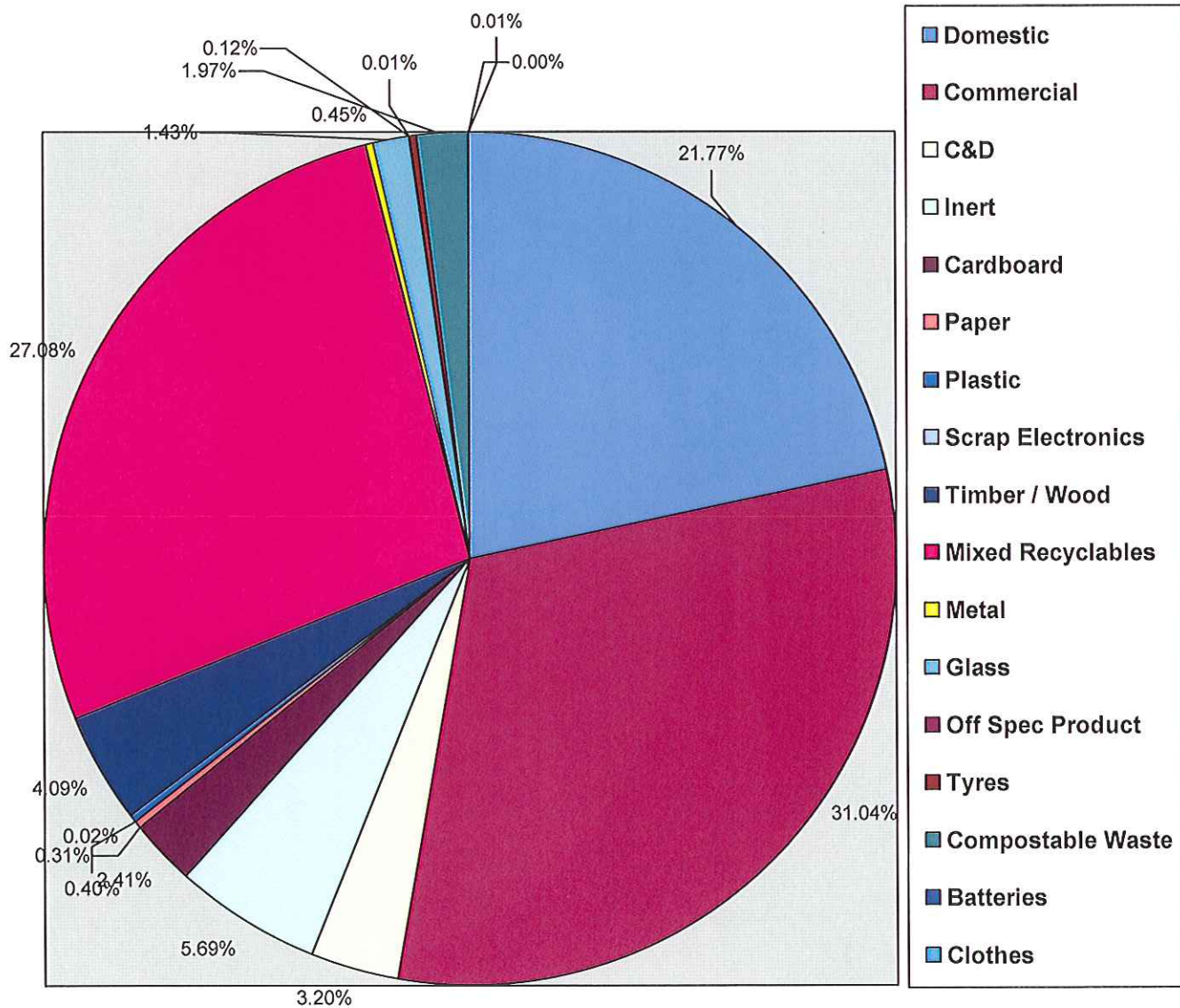


Figure 2.8.0:
Breakdown of Waste Received on site from 1st January 2008 – 31st December 2008

Waste in for 2008: Table of quantities by waste type

WASTE TYPE	WASTE IN (tones per annum)
<i>EWC 200301 Domestic</i>	18539.17
<i>EWC 200100 Commercial</i>	26433.11
<i>EWC 170100 C & 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>	1674.44
<i>EWC 200201 Garden & Park Waste</i>	
<i>EWC 200304 Sludge</i>	
<i>Compostable materials</i>	
<i>EWC 200110 Clothes</i>	0.10
<i>EWC 160601 Batteries</i>	6.20
<i>EWC 160103 Tyres</i>	100.18
TOTAL	85,160.23 TONNES

Table 2.8.1: Total Wastes Incoming 1st January 2008 – 31st December 2008

Waste Out 2008

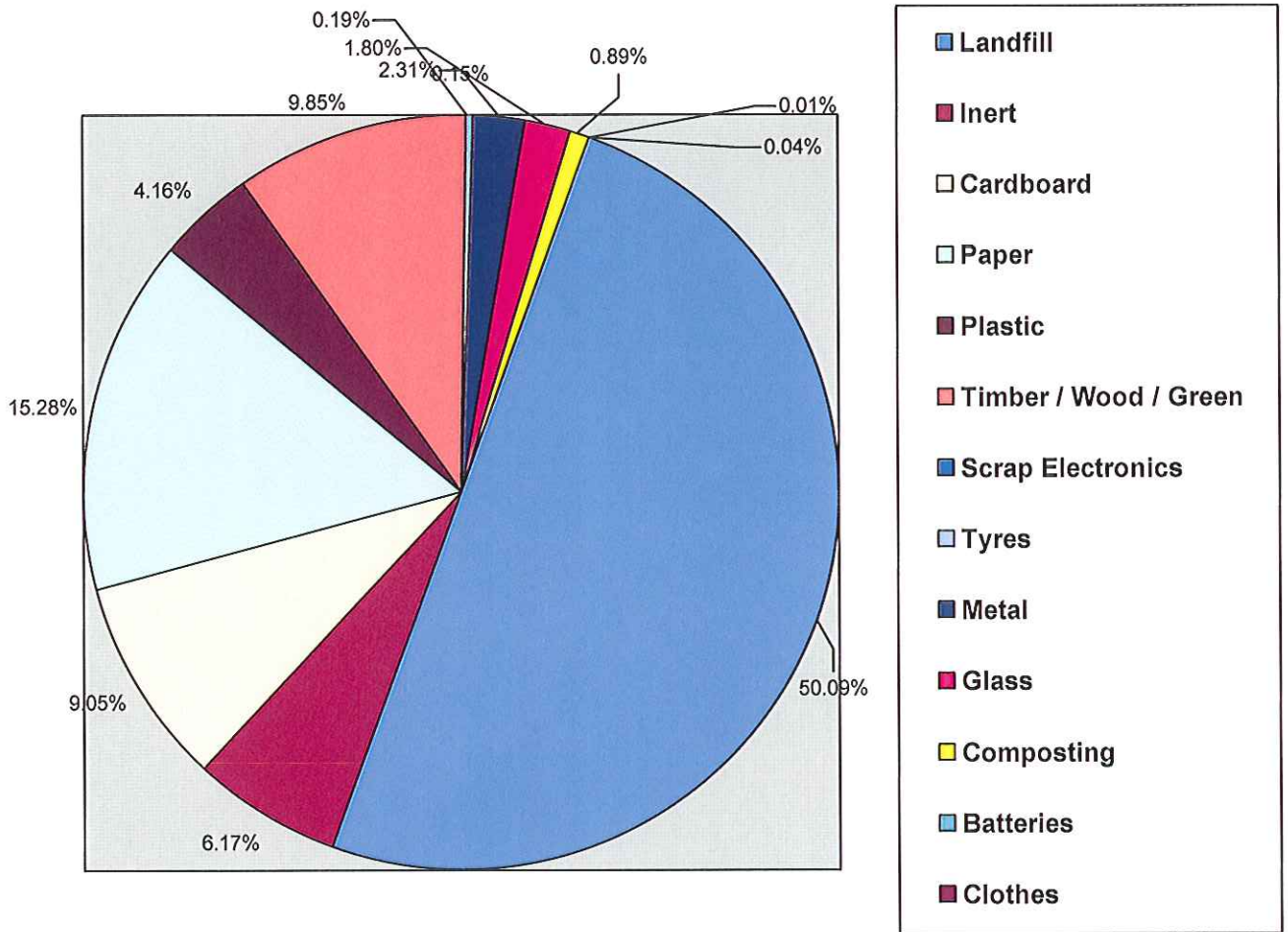


Figure 2.8.2: Breakdown of Waste going off site for Recovery or Disposal from 1st January 2008 – 31st December 2008

Waste out for 2008: Table of quantities by waste type

WASTE TYPE	WASTE OUT (tones 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
TOTAL	78845.05

Table 2.8.3: Total Wastes Outgoing 1st January 2008 – 31st December 2008

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

WASTE TYPE (Recyclable materials only)	RECYCLING (tones per annum)	% OF TOTAL 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%
TOTAL	39,482.24	46% of total waste in was recycled for 2008

Table 2.8.4: Breakdown of recycling waste out details for 1st January 2008 – 31st December 2008

2.9 Summary of Recycling Outlets used in 2008

Barna Waste 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 used for 2008 is included below:

MATERIAL / COMMODITY	MARKET / TYPE
Metal	S.Nortons (Liverpool) – recycler Emerald Salvage (Sligo) – recycler Galway Metal (Galway) – recycler
Steel Cans	AWS (Newcastle) – broker Davis Recycling (Dublin) – broker Global Material Recycling (Galway) – broker
Aluminium Cans	Asia Global Trade (London) – broker
Timber (shredded)	Finsa Forest Products (Ireland) – end user Weyerhaeuser Europe (Ireland) – end user Greenstar (Galway) – end user Galway City Council Composting Site – end user
Pallets	Midwest Pallets (Ireland) – end user
Paper / Cardboard / Newspaper	Highlander International (Glasgow) – broker Peute Papier Recycling (Holland) – end user
Plastics	AWS (Newcastle) – broker Highlander International (Glasgow) – broker Asia Global Trade (London) – broker Leinster Environmentals (Dundalk) – broker Capital Silver Recycling (Hong Kong) – end user Global Materials Recycling (Galway) – broker Marwin Environmental Trading (Cork) – broker
WEEE and Scrap Electronics	Techrec Ireland Ltd (Ireland)
Glass	Tullagower Quarries (Ireland) Glassdon Recycling (Antrim, Northern Ireland)
Composting	Enviro-Grind (Ireland) Galway City Council – Carrowbrowne Site
Tyres	Crossmore Transport (Ireland) Ruane Tyre Recycling (Mayo)
Inert Materials	Barna Waste (permitted site – Headford Road) Galway City Council – Carrowbrowne Site
Landfill Material	Connacht Residual Regional Landfill - Kilconnell Ballydonagh Landfill - Athlone Ballaghadereen Landfill – Roscommon Derrinumera Landfill - Mayo Rathroeen Landfill – Mayo
Batteries	The Recycling Village (Dublin) Returnbatt (Kildare)
Gypsum / Plasterboard	Gypsum Ireland (Dublin)
Clothing / Textiles	Textile Recycling Ireland (Dublin)

Table 2.9.1: Major recycling markets used in 2008

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.

3.0 Report on the achievement of targets set out for:

- **Biodegradable waste**
- **Packaging waste**
- **Recovery of C&D Waste**
- **Recovery of Household, Industrial and Commercial waste.**

This section is included to update on the progress Barna Waste have made during the 2008 reporting period with regards to meeting our environmental targets. As stated in previous years it is the aim of the facility to meet the targets set out by the “Waste Management - Changing Our Ways” Policy Document which was published by the Department of the Environment and Local Government in 1998.

The relevant targets set out in this document are as follows:

- A diversion of 50% of overall household waste from landfill within the next 15 years
- A minimum 65% reduction in biodegradable waste consigned to landfill within the next 15 years
- The development of waste recovery facilities employing environmentally beneficial technologies, as an alternative to landfill, including the development of composting and other feasible biological treatment facilities capable of treating up to 300,000 tonnes of biodegradable waste per annum within the next 15 years
- Recycling of 35% of municipal waste within the next 15 years
- Recycling at least 50% of C&D Waste within a five year period, with a progressive increase to at least 85% over the next 15 years

As can be seen from the results above the overall percentage for waste recycled is 46% of the total waste into our facility across the weighbridge for the reporting period. This is a 1% reduction and therefore very similar performance to the previous year.

The achievement of the 50% overall recycling will only be achieved when we introduce a composting bin to our customers. The original plan was for customers to have this bin during the 2006 reporting period but as our facility is not yet up and running with our composting facility this has not been achieved. The majority of domestic customers should have their composting bins by the end of 2009. This project has been seriously delayed but will be operational in Q2 of 2009. County Council Waste Collection Permits will now include by laws in relation to the segregated collections of biodegradable waste therefore we will have no option but to introduce this service. Barna Waste will use a phased approach by introducing the brown composting bins to larger more populated areas first working out towards more rural areas. A 50% overall recycling target is very achievable and Barna Waste fully believe we will have no problem in recycling 50% of what comes into our facility following the introduction of our composting collections to domestic customers.

There has been no change in the company's status in regards to achieving the target of diverting 65% of biodegradable waste away from landfill due to the fact our composting facility is still not operational. As a result no major push was put into persuading our customers either commercial or domestic to go composting. Our waste figures for 2008 are very similar to what was collected in 2007 to support this. The diversion of biodegradable waste from landfill is definitely a target which we see as achievable once our composting facility is operational. As soon as the facility is operational both domestic and commercial customers will be able to offer compostable materials in a segregated form for recycling. Our sales team will be encouraging as many customers as possible to take up on the composting and full training on the types of waste that can be recycled will be offered. Realistically it will be the second year of operating our composting facility when we get a fair idea of what targets can be achieved with regards to composting. This will be updated annually in this report. We are confident that the new facility will allow us to achieve the targets set out for the EU legislation / regulations specifically in relation to biodegradable waste.

In relation to the processing of C&D waste materials Barna Waste have planning permission at two separate locations very close to our existing site but no final decision has been made in relation to which area we will use to finally house our C&D processing. This area will be equipped with the best equipment to ensure that we can achieve recycling on most of the builders waste when it comes to our facility. Trends for the past 5 years show that the building sector are supporting recycling by segregating waste at source and providing good quality clean materials for us to handle. However it must be noted that there was over a 50% reduction in the building material our company handled during 2008 which is completely the opposite from the trends from the past few years. This is purely due to the current economic climate and the reduction in building work generally around the country. However with a new building and dedicated area to be constructed which we are still committed to, skip hire service and pricing structured to support the builders in the segregation programmes then we are confident that the 50% recycling figure can be achieved comfortably.

Summary

Looking at figures for 2008 there seems very little progress to report in comparison to what was achieved in 2007. The two main reasons for this are clearly the delay in the opening of our own composting facility which has delayed us in the introduction of our brown composting bins which will have a significant positive impact on our own recycling figures. Barna Waste are still fully committed to this project and will be operational in Q2 2009. Also the general slow down in the building industry has meant that figures in relation to C&D have fallen significantly however we still see the people involved in the industry are willing to support recycling and see it as a significant cost saving on there projects. Although tonnages are down recycling figures should remain consistent. Overall as a company Barna Waste are comfortable that our collection methods, our facility, processes & equipment and our end markets will allow us to achieve all of the targets set out above comfortably over the next few years especially in relation to the C&D and composting targets which our new dedicated processing areas will give us the capacity to achieve these targets at our own site.

Progress will be reported annually in the Annual Environmental Report.

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			
	2004	2005	2006	2007
Household	19796.62	22134.78	29328.22	28840.92
Commercial	17691.68	17874.97	16095.29	22150.64
Construction and Demolition	12690.92	4594.86	6234.14	5988.48
Others	19981.8	21526.33	33,489.19	35625.35
Biowaste	0	0	0	1525.88
Total	71193.08	66130.94	85146.84	94,131.27

WASTE TYPE	TONNES PER ANNUM			
	2008	2009 (Projected)	2009	2010
Household	18539.17	20,000		
Commercial	26433.11	30,000		
Construction and Demolition	2729.37	2,500		
Others	35784.14	40,000		
Biowaste	1674.44	3,000		
Total	85,160.23	95,500		

4. Site Infrastructure and Operational Changes

4.1 Existing Facility & Operations

The infrastructure and set-up of the existing Barna Waste facility is outlined below. Changes from last years report are highlighted.

Phase 1 is the existing waste transfer building.

The existing site has been continually developed over the past ten years and at the end of the current reporting period was laid out as follows:

- Site Accommodation:
 - 1) **Canteens** – three staff canteens on site
 - 2) **Administration Offices** – includes a weighbridge office adjacent to our two weighbridges and a larger administration office housing administration staff including Facility Manager, Operations Manager, Transport Manager and all Accounts and Sales staff.
 - 3) **Toilet Facilities** – toilets now in place at the front and rear of the facility
 - 4) **Changing Facilities** – locker rooms and changing facilities available for all our Operations staff.
 - 5) **First Aid Room** – fully stocked first aid room and trained first aiders at the site
- Two weighbridges (weigh in / weight out) system at the entrance of the facility incorporating weighbridge software

- Transfer building incorporating separate areas for:
 - **Section 1:** NON RECOVERABLE LANDFILL 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
- 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 and the other side of the building is used for managing the recyclable materials. Mixed general waste materials are sorted by hand and/or machine where possible to ensure any materials that can be recovered are salvaged before the load is sent to landfill. The floor is normally cleared at the end of each working day.
- Steel and Timber processing areas - steel and timber are now processed within the new composting extension in separate bays. A member of staff is now designated to process these materials and maintain the machinery on a daily basis. This change has increased the efficiency of the facility greatly. Small amounts of steel and timber are still stored in the main transfer station because they are picked out of mixed deliveries and taken to the appropriate area at the end of each day. These changes have meant that no stockpiles of metal / timber have been allowed to build up on 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. Baling wire stock is also kept in this area.
- Maintenance building and maintenance yard for carrying out maintenance work and storing equipment. This section has a full time on site mechanic and fitter.
- Paint shop – an area has been created behind the existing garage and within the new composting building for the maintenance and painting of all our trucks and skips
- 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.
- Picking station fitted with a ballistic separating machine, edicurrents and a magnet
- A temporary area outside for the processing of construction and demolition waste
- Composting Building – construction of the actual composting building is now complete and we should be fully operational sometime in Q2 2009
- 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 now equipped with loading bays which allow containers to be back up to the entrance to 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

The operation of our facility is supported by our EMS system. 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 an annual basis at least. This system is ISO 14001 accredited by the NQA.

Titles of all procedures and documents used at the facility are as follows:

BARNA WASTE - EMS Contents Listing

1. BW/EMS/001	E.M.S. Manual
2. BW/EMS/002	Environmental Policy
3. BW/EMS/003	I.E.R
4. BW/EMS/004	Document Control Procedure
5. BW/EMS/005	Document Issuance Form
6. B W/EMS/006	Document Review Form
7. BW/EMS/007	Programme Review Form
8. BW/EMS/008	Aspects Register
9. BW/EMS/009	Records Management Procedure
10. BW/EMS/010	Env. Management Rep. Job Description
11. BW/EMS/011	Management Review Schedule
12. BW/EMS/012	Revision History Form
13. BW/EMS/013	Training Course Attendance Record
14. BW/EMS/014	Emergency Preparedness & Response Proc.
15. BW/EMS/015	Communications Procedure
16. BW/EMS/016	Waste Handling & Disposal Procedure
17. BW/EMS/017	Accident Report Form
18. BW/EMS/018	Health and Safety Equipment Issue Form
19. BW/EMS/019	Training Procedure
20. BW/EMS/020	Env. Records Index
21. BW/EMS/021	Employee Env. Feedback Form
22. BW/EMS/022	Approved Supplier Control Procedure
23. BW/EMS/023	OBSOLETE – Approved Supplier List
24. BW/EMS/024	EMS Programme List
25. BW/EMS/025	EMS Programme Management Procedure
26. BW/EMS/026	Emergency Response Team Seniority List
27. BW/EMS/027	Register of Environmental Legislation
28. BW/EMS/028	Register of Legislation Management Proc.
29. BW/EMS/029	EMS Audit Procedure
30. BW/EMS/030	Internal Audit Report Form
31. BW/EMS/031	Non Conformance Form
32. BW/EMS/032	Employee Details Form
33. BW/EMS/033	EMS Audit Schedule
34. BW/EMS/034	Emergency Contacts Listing
35. BW/EMS/035	Safety Statement Declaration Form
36. BW/EMS/036	Internal Environmental Checklist
37. BW/Ops/001	Organisation Chart
38. BW/Ops/002	Monitoring and Recording Schedule

39. BW Ops/003	Foul Water Discharge Meter Reading Form
40. BW/Ops/004	Waste Inspection Check Sheet
41. BW/Ops/005	Waste Processing Procedure
42. BW/Ops/006	Housekeeping/Nuisance Inspection Procedure
43. BW/Ops/007	Housekeeping/Nuisance Check Sheet
44. BW/Ops/008	General Monitoring Procedure
45. BW/Ops/009	Waste Profiling Form
46. BW/Ops/010	OBSOLETE – Bund Testing Results Form
47. BW/Ops/011	Bund Integrity Test Procedure
48. BW/Ops/012	Drainage, Bunds & Interceptor Check Sheet
49. BW/Ops/013	Env. Incident Investigation Form
50. BW/Ops/014	Env. Incident Investigation & Reporting Proc.
51. BW/Ops/015	Env. Complaints Form
52. BW/Ops/016	Env. Non-Compliance Form
53. BW/Ops/017	Env. Non-Compliance Procedure
54. BW/Ops/018	Residuals Management Procedure
55. BW/Ops/019	Incoming Checklist
56. BW/Ops/020	Outgoing Checklist
57. BW/Ops/021	Equipment Maintenance Procedure
58. BW/Ops/022	Equipment Maintenance Schedule/Checklist
59. BW/Ops/023	Picking Station Procedure
60. BW/Ops/024	Boston Scientific Procedure
61. BW/Ops/025	Medtronic AVE Materials Procedure
62. BW/Ops/026	Toolbox Training Document for Forklift Safety
63. BW/Ops/027	BBT Battery Charging (Health and Safety) Procedure
64. BW/Ops/028	Weekly Preoperational Checklist for Excavator Grab
65. BW/Ops/029	Weekly Preoperational Checklist for Forklifts
66. BW/Ops/030	Daily Preoperational Checklist for Loading Shovels
67. BW/Ops/031	BBT Noise Health and Safety Policy
68. BW/Ops/032	Permit to Dig Form
69. BW/Ops/033	Manual Handling Policy Procedure
70. BW/Ops/034	Number to be re-used no document
71. BW/Ops/035	Barna Waste Construction Works Safety Checklist
72. BW/Ops/036	Number to be re-used no document
73. BW/Ops/037	Barna Waste Facility Health and Safety Guidelines
74. BW/Ops/038	Barna Waste Fire Drill Guidelines
75. BW/Ops/039	Barna Waste Weekly Fire Equipment Checksheet
76. BW/Ops/040	Barna Waste First Aid Equipment Checklist
77. BW/Ops/041	Barna Waste Weekly Health and Safety Checklist
78. BW/Ops/042	Hot Works Permit Form
79. BW/Ops/043	Hot Works Procedure
80. BW/Ops/044	Machine – Permit to Work Form
81. BW/Ops/045	Still to be used missed in error
82. BW/Ops/046	Health and Safety Records Index
83. BW/Ops/047	Induction List for Visitors to Barna Waste
81. BW/TRA/001	Training Versatility Chart
82. BW/TRA/002	BW Induction Process
83. BW/TRA/003	OBSOLETE - Employee Roll Call Listing
84. BW/TRA/004	OBSOLETE - Approved Forklift Drivers Listing
85. BW/TRA/005	Bin Lorry Lifting Equipment Training Procedure
86. BW/TRA/006	Health & Safety Equipment - Ear Muffs Fitting Instructions
87. BW/TRA/007	Health & Safety Equipment - Foam Plugs Fitting Instructions

4.2. Plant & Machinery / Road Fleet

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

- 4 x large loading shovels for managing waste in the transfer area
- 4 x mini loading shovels for managing waste in the picking station bays / or main transfer station
- 5 x track machine excavators
- 3 x Liebherr grab machines for loading trucks and managing movements of waste
- 4 x forklifts
- 2 x JCB Teletrucks (with clamps for lifting bales)
- 1 x Teleporter
- 1 x Electric Scissor Lift
- 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
- 1 x BOA Baler (with bottle piercer)
- 1 x Harris Twin-Ram Baler
- 1 x Metal baling machine
- 2 x Paper Shredding machines
- 2 x Picking Station Conveyers and 6 x Material Bunkers
- 2 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

The following is a list of our on the road fleet:

- 11 x artic trucks
- 2 x rigid tankers
- 20 x skip lorries
- 7 x hook bin loaders
- 7 x curtainsider collection / delivery vehicles
- 65 x rear end loaders (standard bin lorries)
- 40 x collection delivery vans / jeeps
- 12 x trailers
- 8 x 30m³ ejector trailers for the transfer of waste
- 1 x sludge treatment tanker / dewatering unit
- 2 x glass collection vehicle
- 1 x food collection vehicle
- Container lift
- Tractor unit with Crane Attachment

The above list of plant / machinery provides us with the equipment to manage our busy waste transfer station and waste collections. The above list is not all in use 100% of the time and some of the equipment acts as backup in times where we suffer breakdown 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 managed and our Operations Manager is responsible for ensuring maintenance and proper use of the machinery used within the transfer station. The management team are backed up by an on site mechanic who repairs 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 Waste try to invest some of our annual budget each year towards the upgrading of the above list of plant and equipment and this was evident again in 2008. We will continue to implement this policy. We are comfortable that the above list of machines / plant are 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

The Barna Waste facility in Carrowbrowne has been constantly been updated and improved over the past few years but there were no significant changes made to the site during 2008 although some changes are planned.

The major change for 2009 will be the relocation of the companies main administration offices currently located on the existing site. The offices will be relocated to the rear of the existing facility on ground currently occupied by Tolco Antiques and Seamus Florist Sundries. The company have purchased part of this building which is currently being converted into new offices for Barna Waste. The plans have been finalised and it is proposed that all administration staff will be relocated sometime at the beginning of Q2 2009. The existing office area will be removed. A bridge connecting the new offices with the existing licenced site will be put in place prior to the move. This office will offer a significant improvement to the existing temporary structure and have the adequate space to support the development of the company moving forward.

In addition Barna Waste have purchased land to the rear of our existing facility which is currently a permitted site and being filled using inert materials. The company are yet to decide how best to use this land for future development and we will update the agency as soon as a final decision has been made. This site has significant land space and must be used to the best benefit of the company.

In relation to our existing site we do not plan any major developments to this site with the exception of clearing our permitted site and making use of the space we have there. We have planning permission to construct a building on this site to facilitate the processing of construction & demolition waste but a final decision is still to be made of whether to make use of this planning. It is still the long term aim of the company to include this permitted site within our EPA licence.

No other major changes at the site are planned.

5. Incidents and Complaints Summary

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

- Environmental Complaints Form (BW-OPS-015)
- Environmental Incidents Form (BW-OPS-013)

Any environmental non-compliances are recorded and documented by the EPA and are the responsibility of the Management Team to action.

Internal audits are also carried out as part of our ISO 14001 certification and continual improvement plans. Results of these are recorded on:

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

All documented Complaints, Incidents 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 will immediately be assigned to a member of the management team to find a solution / corrective action.

- There were no complaints submitted to the company of an environmental nature during this reporting period.
- There were no major environmental incidents to report during the reporting period.

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. These nuisance checks verify that there are no issues at the facility with regards to vermin, birds, flies, dust, housekeeping or odours.

During 2008 we had one major issue which was in relation to vermin at the facility when we had a significant increase in the number of rats at the facility. This was noted during nuisance inspections and reports from employees. Barna Waste acted quickly and invited Ecolab our contractor to investigate and solve the problem. All parties acted swiftly and credit to Ecolab who immediately put a plan in place to remove the problem. A two week extensive baiting programme and the addition of over 50 bait boxes at new locations was implemented and the problem was resolved. Barna Waste agreed to keep the boxes in place as a permanent measure and since this issue was resolved at the facility there has seen significant improvements in vermin levels. Ecolab have seen very little activity in the bait boxes and employees see very few rats at all during operational hours. The additional boxes and visits by Ecolab will continue throughout 2009 to keep vermin under control. The benefit of daily nuisance checks was evident in being able to highlight this problem quickly and to get it resolved. Barna Waste are confident the problem has been fixed and in fact we believe our vermin controls have been improved to a situation better than they ever have been in the past.

No other recurring nuisance issues arose during 2008.

7. Environmental Monitoring

The required monitoring programme at the Barna Waste 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 (carried out by Connemara Laboratory Services) on the 09/01/2008.
- Surface & Foul Water Monitoring (carried out by Connemara Laboratory Services) on the 28/04/2008.
- Surface & Foul Water Monitoring (carried out by Connemara Laboratory Services) on the 23/07/2008.
- Surface & Foul Water Monitoring (carried out by Connemara Laboratory Services) on the 29/10/2008.
- Dust Monitoring (carried out by Euro Environmental Services) in May / June, July / August and September / October 2008. Dust pots left on site for approximately 30 days each time.
- Noise Monitoring (carried out by Euro Environmental Services) on 08/05/2008.

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

Connemara Laboratory Services are employed as part of the Environmental Management Team to carry out and report on the Surface and Foul Water monitoring. We have on file all the relevant names and qualifications held by the people carrying out the testing on our behalf.

Euro Environmental Services are employed as part of the Environmental Management Team to carry out and report on the Dust and Noise levels on site. We have on file all the relevant names and qualifications held by the people carrying out the testing on our behalf.

Both companies will continue to monitor our facility during 2009.

7.1. Summary of Surface and Foul Water Results

Water Monitoring – Annual Summary

All surface and foul water monitoring was carried as per the schedule set out in EPA licence WL106-2 for 2008. The dates of the collection of the samples are as listed above. In addition to this schedule the Agency also take their own samples at periodic times during the year. In quarters 1 and 2 of 2008 the monitoring results for the water revealed no issues and all results were found to be within the specifications set out in our waste licence. No corrective actions or investigation was needed. However in Q3 and Q4 the foul water readings both showed that levels of COD and BOD had exceeded the levels set out in our waste licence. Any repeat result like this is immediately investigated and we could not find anything obvious to contribute to the results. The drainage network and pumping station where the foul water is transferred were working without problems throughout this period. The leachate treatment lagoon where the foul water is sent also seemed to be working without any problems. High levels of COD and BOD would suggest high levels of dust, soil contamination and therefore the only contributing factors we could identify were the installation of the dust spray system close to the drainage network used for keeping dust under

control and also the exceptional weather, even for Ireland during the time of the samples with a prolonged period of heavy rain, wind and generally stormy weather. It is not a major concern because the foul water does go to the treatment lagoon however this is something we will monitor. The drainage network and pumps are checked on a daily basis to ensure they are working and the roadsweeping and dust control system at the site has helped to reduce the amount of dust, debris on the hardstand areas. If results for Q1 2009 show a similar level of COD and BOD then we will ask the Agency to look at this with us. There were no major concerns at any other monitoring locations for 2008 with the exception of one high reading of mineral oil being detected at location SD1. This was attributed to some debris lying on the pipe where the samples are taken which was immediately removed. EPA samples taken around the same time from location SD1 were clean of mineral oil. This pipe is now cleaned on a regular basis to avoid debris lying on the pipe especially at times when there is little or no flow. Details of the reviewing of results for individual quarters are detailed below.

Water Sampling – Quarter 1 2008

Samples were collected by Connemara Laboratory Services on 09/01/2008 as per the conditions of EPA licence WL106-2. Having studied the results and discussed them with Connemara Laboratory Services all readings were within specification and there are no environmental concerns from our water emissions for this period.

Water Sampling – Quarter 2 2008

Samples were collected by Connemara Laboratory Services on 28/04/2008 as per the conditions of EPA licence WL106-2. Having studied the results and discussed them with Connemara Laboratory Services all readings were within specification and there are no environmental concerns from our water emissions for this period.

Water Sampling – Quarter 3 2008

Samples were collected by Connemara Laboratory Services on 23/07/2008 as per the conditions of EPA licence WL106-2. Barna Waste have reviewed the results and discussed them with Connemara Laboratory Services and have reached the conclusion that there is nothing within the reports to cause any concern to the environment. All results were within specification with the exception of the COD and BOD levels recorded at the FW1 monitoring location. There was no obvious reason for this reading as the drainage network was clear and the pumps working without any problems. This discharge is sent to the treatment lagoon in the adjacent landfill site and therefore is treated before final discharge and therefore these readings are not a major concern. However we will review the readings of the next test to ensure this is not a recurring problem and that this was just an exception. Nothing has changed operationally or was reported at the time of sampling that we think could have contributed to this result. The results also exceeded the licence limit at location SD1 due to a high level of mineral oil being detected. This result is of concern because of discharge to the stream at the back of the site. We immediately checked the pipe where this reading was taken and found some residue in the pipe at the same location where samples are taken, this was cleaned and is being monitored for the next 7 days. Following review there is no explanation for the high reading other than the residue in the pipe. No build up of anything has accumulated. Discharge from the pipes at SW1, SW2 and SD1 is clean and neither the discharge or the stream show any signs of oil. In addition the EPA took their own samples from location SD1 on 14/08/2008 and 09/09/2008 after we cleared the residue and their results have shown absolutely no trace of mineral oil. Therefore we concluded that the residue in the pipe has caused the reading to be high and that this contamination was stuck on the pipe and not being discharged. We do not believe there is any major concern but will monitor the pipe and the next set of EPA and CLS

results to confirm these conclusions. We expect these results to be clear as per the recent Agency samples have shown.

Water Sampling – Quarter 4 2008

Samples were collected by Connemara Laboratory Services on 29/10/2008 as per the conditions of EPA licence WL106-2. Barna Waste have reviewed the results and discussed them with Connemara Laboratory Services and due to the exceptional weather at the time of the samples some of the readings are outwith the limits specified in our licence. At location FW1 the limits were exceeded for COD and BOD mainly due to the amount of dust, dirt on the site roads around the time due to the prolonged period of stormy and windy weather. Pumps and the drainage network were working without issue at the time. As this was a repeat result (reference Q3) which also exceeded licence limits in the previous quarter we would welcome the agencies comments in relation to this if they have any concerns. This discharge is sent to the treatment lagoon in the adjacent landfill site and therefore is treated before final discharge and therefore these readings are not a major concern and we do believe the exceptional weather during this period contributed to the high results for this quarter. There are no agency samples taken recently from this location to compare results. If the agency have any concerns then please advise us and we will take whatever action is required to verify that this is not a major problem. We are assuming that the weather at the time of these samples in Q4 which was exceptional even for Ireland at the time of year has contributed to these results. In relation to the other locations the agencies own samples around this time show no issues at location SW1, SW2 or SD1.

7.2. Summary of Dust Monitoring Results

Dust Monitoring – Annual Summary

Dust monitoring was carried out on the dates listed above during 2008. The frequency and number of samples were all carried out as per the requirements of our EPA licence WL106-2. Barna Waste have always recognised that dust controls at the site need to be improved and to that end have completed a tendering process which will result in the installation of a new state of the art dust control system installed in the near future (Q3 or Q4 2009). During 2008 Barna Waste installed a series of temporary in house measures to improve dust levels at the site mainly in the timber shredding and general hardstand areas which have the majority of our traffic operating on. These measures have been shown to the Agency during recent visits and these have certainly helped reduce dust levels immensely at the site. Barna Waste also own a roadsweeper and regularly sweep the hardstand areas to control the dust levels. During 2008 there have been big improvements in the dust levels around the site. However reporting results for 2008 still show that levels of dust exceeded the limits at certain locations. Location D1 exceeded levels on one occasion. This monitoring location is adjacent to the N84 road with no waste activities carried out in the immediate area. Our permitted site is filled but is not surfaced and therefore the ground can be described as rough. Only traffic movements from our own site which would be minimal in this area and on the N84 road have contributed to this result. Location D1 was within specification on the other two occasions. Monitoring location D2 also exceeded licence limits on one occasion but was within specification on the other two locations. The result at location D2 has to be noted as arising from our own activities as this is not close to any other facility. No waste activities are carried out in this area and this can only be as a result of traffic in the area namely loading shovels and / or forklifts. Results were only just over the licence limit and as a result we have decided to increase the roadsweeping to daily at this location to solve the problem. Since we implemented daily sweeping there have been no issues in this area as proved by the next dust assessment where results were within the required licence requirements. At location D3 the results exceeded licence limits on one occasion and this was due to the fence to which the collection pot is attached being repaired at the

time the pot was left in the area. The results at this location were within specification at all times other than when this work was being carried out. Monitoring location D4 is situated at our civic amenity site and adjacent to the boundary wall. The civic amenity site is the cleanest area of our facility and is maintained (by sweeping) on a daily basis by our employees. Dust levels that exceed licence limits in this area as they did on two occasions in 2008 are down to the traffic on the approach road outside of our facility. The traffic on this road has increased significantly during 2008 due to the opening of the Halting Site for the Travelling Community in Galway for which the entrance is immediately opposite the monitoring location. During dry weather this road can be dusty due to the deliveries of soil, stone to the adjoining composting site and redundant landfill and this dust is risen by vehicles on this road. The entrance to our own facility is about 100 yards before the monitoring location. Barna Waste are sure that the results from D4 are not influenced by dust arising from our facility or activities at the civic amenity site. The reviews carried out of the individual monitoring reports for 2008 are detailed below.

Dust Monitoring – JUNE 2008

Dust Monitoring was carried out by Euro Environmental Services as per the requirements of EPA licence WL106-2. Sampling pots were left on site on 08/05/2008 and removed on 11/06/2008 for analysis. The results for this period have shown that monitoring location D2, D3 and D4 all fall within the required dust deposition limits set out in the licence. However the dust levels recorded at location D1 exceeded the levels set out in the licence. Monitoring point D1 is located along the western boundary of the facility which runs adjacent to the N84 and where the site is protected full length by a concrete wall. No waste activities are carried in the immediate area of the monitoring point. The only activities in this area are traffic within our own site and general traffic flow to and from Galway City on the busy N84 road. Barna Waste has no control over the traffic flow on the N84. There are no major concerns over these results at location D1 as they are not a direct result of activities at our site although traffic movements would have contributed.

Dust Monitoring – AUGUST 2008

Dust Monitoring was carried out by Euro Environmental Services as per the requirements of EPA licence WL106-2. Sampling pots were left on site on 11/06/2008 and removed on 11/07/2008 for analysis. The results for this period have shown that monitoring location D1 and D3 fall within the required dust deposition limits set out in the licence. However the dust levels recorded at location D2 and D4 exceeded the levels set out in the licence. The result at location D4 can be attributed to the traffic on the approach road to the adjacent composting facility operated by the Local Authority and the holding site being used as a residential area. The residents use the area adjacent to the monitoring location for storage of materials, waste and vehicles. Barna Waste's civic amenity site is adjacent to the location where recyclable material is managed and would not cause excess dust levels. This area at the site is also very well maintained and cleaned on a daily basis. The result at location D2 has to be from our own activities as this is not close to any other facility. No waste activities are carried out in this area and this can only be as a result of traffic in the area namely loading shovels and / or forklifts. This area is road swept at least on a weekly basis. Results are only just over the licence limit and as a result we have decided to increase the roadsweeping activity at this location to remove this problem.

Dust Monitoring – OCTOBER 2008

Dust Monitoring was carried out by Euro Environmental Services as per the requirements of EPA licence WL106-2. Sampling pots were left on site on 11/08/2008 and removed on 09/09/2008 for analysis. The results for this period have shown that monitoring location D1 and D2 fall within the required dust deposition limits set out in the licence. However the dust levels recorded at location

D3 and D4 exceeded the levels set out in the licence. The result at location D4 can be attributed to the traffic on the approach road to the adjacent composting facility operated by the Local Authority and the holding site being used as a residential area. The residents use the area adjacent to the monitoring location for storage of materials, waste and vehicles. Barna Waste's civic amenity site is adjacent to the location where recyclable material is managed and would not cause excess dust levels. This area at the site is also very well maintained and cleaned on a daily basis. The elevated dust levels at location D3 can be attributed to the recent work carried out in the area to repair the damaged fence to which the sampling pot is attached. This is the only activity in this area that could have lead to the elevated levels compared to previous results.

7.3. Summary of Noise Monitoring Results

Noise Monitoring Results - Annual

Noise Monitoring was carried out by Euro Environmental Services as per the requirements of EPA licence WL106-2. This years survey was carried out on 8th May 2008. As required by the licence we monitored noise levels at two sensitive locations one on the site boundary nearest the major processing area and the second at the nearest residence to our facility. Locations are known as N1 and N2. Monitoring results at the location N1 on site show that the noise levels exceeded the required limit mainly due to the movement of vehicles in and out of the transfer station.

Operational noises did have an impact on the results however the major factor was the vehicles passing close to the monitoring location. There was also some construction activity in the adjoining Landfill Site close to the monitoring location. We are not concerned by the level of noise produced at the site as a result of our activities however we do have a concern that the noise reports are consistently showing the same results. We would propose to discuss this issue with the Agency the next time you visit the facility with a view to possibly relocating the noise monitoring location to a better location which will eliminate the results being affected by traffic passing within a few feet of the monitoring equipment but still take an accurate and effective measurement of the 'actual' operational noise being produced at the site. Readings at the second monitoring location N2 were within specification. I can confirm there have been no issues or complaints regarding noise at our facility during the past year and our Health & Safety Manager is also happy with the levels of noise being produced at the facility. Overall we are comfortable with the results reported and that we are having no impact on our employees or immediate neighbours in relation to noise.

7.4. Monitoring Locations

A map of the monitoring locations at the site is attached as an appendix to this report.

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 2007 (approximately): 4,100,000 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 if any odours are detected at the facility	Chemical – diluted with water
Offices	Administration & Management of the facility usage of electricity for computers, phones etc	Electricity

Table 9.2: Usage of Energy and Resources, 1st January 2008 – 31st December 2008

Resource	Consumption for Reporting Period
Site Management	
Odour Control Chemicals	Approximately 20 litres
Electricity	2008: 1,304,972 (KW) 2007: 817,982 (KW) 2006: 71,689 (KW) 2005: 117,174 (KW) 2004: 120,900 (KW)
Diesel Fuel	895,000 (litres approx) including our fleet of on the road vehicles
Hydraulic Oils	67,000 (litres approx)

10. Tank, Pipeline and Bund Testing and Inspection Report

Barna Waste hired the services of DynoRod to carry out a camera check on our underground pipelines at the facility towards the end of 2008 as required by our EPA licence. This check showed that the majority of the underground network was clean and dry and in good repair. The survey highlighted one issue on one of the lines within the composting building showing a gushing effect coming from the pipe meaning there was a small hole. The pipe was holding water at the location where the hole was in the pipe giving the impression that groundwater was coming into the pipe rather than leaking out. There is no waste activity providing foul water to this pipe its purely the waste water from the toilets on site that run through this location. Barna Waste have decided to make this line redundant and use a pumping station to channel the foul water from the toilets etc to the foul water tank prior to release to the leachate treatment lagoon. This change will see the pipe that was gushing be sealed completely at both ends to ensure there is no flow from now on. PJ Tobins Engineers are in the process of updating the drainage drawing to show this change and the work is due to be carried out within the next couple of weeks (before week ending Friday 13th February 2009). This gushing was the only issue highlighted during the test of the underground pipes all other locations were clear. A written report and DVD were produced by DynoRod and a full copy of both are being submitted to the Agency as soon as the updated drainage drawing is available for there review and comment.

11. Financial Provision for the Facility

Financial provision for the company is outlined in our Environmental Liabilities Risk Assessment report which was prepared by Tobin Consulting Engineers. This was submitted and accepted by the EPA. There were no changes to the Financial Provision of the site during this reporting period.

Full details of the calculations carried out to reach the final figure are detailed in the report but were made using the formulae outlined in our EPA licence WL106-2.

The final bond figure agreed under the new financial provision is €430,000.

PJ Tobins Engineers are in the process of updating the Barna Waste ELRA document and this will include an assessment and resetting of the financial provision. This document is to be submitted to the agency for review in Q1 2009.

12. Management Structure at the Facility

A current company organisation chart is included in the company EMS system and a current copy is attached to this report as an appendix.

There have been a couple of key additions to the staff at managerial level during 2008 with the addition of a Human Resources Team including a Manager and an assistant. The company has developed to a size where we saw the need to have a dedicated Human Resources Team and we are pleased to have been able to achieve this during 2008.

The company also added a new Sales Manager during the year and he is now in overall control of all of our Sales Representatives and the coordination of there activities.

Both additions are key to the organisation as we continue to progress and the organisation chart which has been attached to this report reflects these changes.

In addition Barna Waste have secured the services of a Manager who will be responsible for the composting process. The person hired has an engineering background and is in the process of completing the EPA approved FAS Composting Course which will help him to familiarise himself with the composting process. This is another key addition to the team and will give us an added focus as we move into production in the new area.

13. Public Information

All official records kept by Barna Waste under the terms of our EPA licence or in relation to any of our activities from either our collection activities 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.

All requests by the public or any other interested party for information will be answered as a priority.

14. Environmental Management Plan & Environmental Management Programme

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 Waste have produced a new EMP for 2009 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 Waste has made in all areas during this reporting period and outlines the major tasks ahead during the new reporting period.

15. AER / PRTR Emissions Data for 2008

The EPA requires Barna Waste 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 companies full AER for the reporting period starting with this years report and therefore a full copy of the 2008 AER / PRTR Emissions Report has been attached as appendix C of this report.

This report was completed on our behalf by Tobins Consulting Engineers.

16. Full PDF AER

The EPA's new reporting requirements 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 available on the agencies website on or before 31/03/2009.

Final Comments

This years Annual Environmental Report has been compiled in the same format as previous years to keep it consistent. All figures and updates quoted are specifically for the 2008 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 Waste during 2008 in all areas of the business. We believe this report achieves this successfully. However Barna Waste welcome 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.

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

Appendices

The following documents have been requested by the Agency and are attached to this document and form part of the final report:

Appendix A:	Company Organisation Chart
Appendix B:	Map of site monitoring locations
Appendix C:	Copy of Barna Waste AER / PRTR Emissions Data Report for 2008

Next Submission

The next submission of this report is due on 31st January 2010.

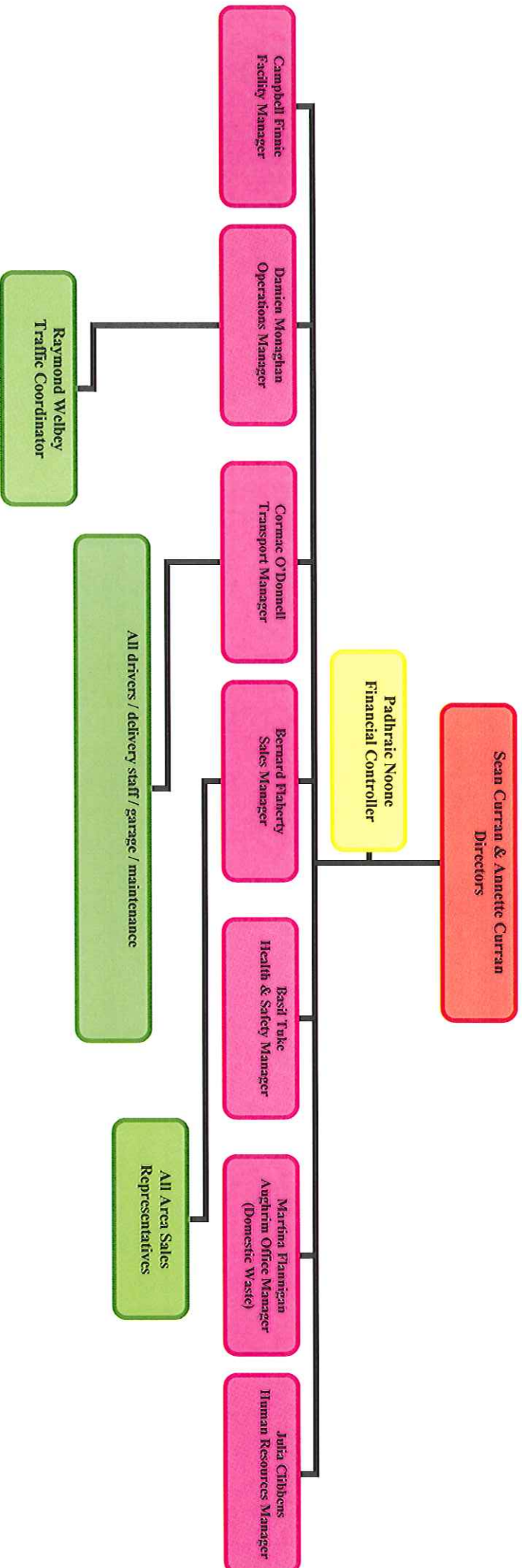
Contacts

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

APPENDIX A

BARNA WASTE

Company Management Structure



BW-OPS-001

REV 12

14/01/2009

APPENDIX B



1	10/10/20	10/10/20	10/10/20
2	10/10/20	10/10/20	10/10/20
3	10/10/20	10/10/20	10/10/20
4	10/10/20	10/10/20	10/10/20

Client	BARNA WASTE LTD	Prepared by	K.S.
Project	Recycling depot & composting plant Carronabroome, Co. Galway	Checked by	R.W.P.
Date	July 2003	Scale	1:1000
Drawn by	J.P. DELVY	Scale	1:1000
Drawn No.	1015-6001	Scale	1:1000

TOBIN Consulting & Contracting Engineers
 Registered Professional Engineers
 1015-6001
 1015-6002
 1015-6003

Scale: 1:1000

APPENDIX C



Environmental Protection Agency

AER Returns Worksheet

Version 1.1.03

REFERENCE YEAR	2008
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1. FACILITY IDENTIFICATION

Parent Company Name	Bruscar Bhearna Teoranta
Facility Name	Bruscar Bhearna Teoranta
PRTR Identification Number	W0106
Licence Number	W0106-02

Waste or IPPC Classes of Activity

No.	class_name
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.12	Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.
4.13	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.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Address 1	Carrowbrowne
Address 2	Headford Road
Address 3	Galway
Address 4	
Country	Ireland
Coordinates of Location	363700.000
River Basin District	IEWE
NACE Code	382
Main Economic Activity	Waste treatment and disposal
AER Returns Contact Name	Campbell Finnie
AER Returns Contact Email Address	cfinnie@barnawaste.com
AER Returns Contact Position	Facility Manager
AER Returns Contact Telephone Number	091-553491
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Number of Installations	1
Number of Operating Hours in Year	4940
Number of Employees	350
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5c	Installations for the disposal of non-hazardous waste

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

Is it applicable?	
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?	

4.1 RELEASES TO AIR

199709E W0109.11.docx Name: Bharat Bhawan Toronto | Name: W0109.2001.wk | Indian Year: 2001

31/03/2024 10:25

SECTION A : SECTOR SPECIFIC PRRR POLLUTANTS

POLLUTANT	RELEASES TO AIR		METHOD Method Used Designation or Description	Emission Point 1	T (Total) KGYear	QUANTITY	
	M/C/E	Method Code				A (Accidental) KGYear	F (Fugitive) KGYear
No. Annex II					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 PRRR POLLUTANTS

POLLUTANT	RELEASES TO AIR		METHOD Method Used Designation or Description	Emission Point 1	T (Total) KGYear	QUANTITY	
	M/C/E	Method Code				A (Accidental) KGYear	F (Fugitive) KGYear
No. Annex II					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 License)

POLLUTANT	RELEASES TO AIR		METHOD Method Used Designation or Description	Emission Point 1	T (Total) KGYear	QUANTITY	
	M/C/E	Method Code				A (Accidental) KGYear	F (Fugitive) KGYear
Pollutant No.					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 utilized on their facilities to accompany the figures for total methane generated. Operators should only report their net methane (CH₄) emissions to the environment under (Total) KGY for section A: Sector specific PRRR pollutants above. Please complete the table below.

Landfill:	Please enter summary data on the quantities of methane flared and / or utilized		Method Used		Facility Total Capacity m3 per hour	T (Total) KGYear	T (Total Flaring Capacity) KGYear
	T (Total) KGYear	M/C/E	Method Code	Designation or Description			
Bharat Bhawan Toronto					N/A	0.0	0.0
					N/A	0.0	0.0
					N/A	0.0	0.0

Total estimated methane generation (as per site model)

Methane flared in engines

Net methane emission (as reported in Section A above)

4.2 RELEASES TO WATERS

PERMIT: W01094 | Facility Name: Duncas Brewery, Toxares | Permit No.: W01094_2003 | Return Year: 2003

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Ones on ambient monitoring or stormwater water or groundwater conducted as part of your licence requirements, should NOT be submitted under ATR (PRTR Reporting as the only concerns Releases from your facility

POLLUTANT		RELEASES TO WATERS		QUANTITY			
No. Annex II	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	I (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
				SC1	0.0	0.0	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		RELEASES TO WATERS		QUANTITY			
No. Annex II	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	I (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0

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

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

POLLUTANT		RELEASES TO WATERS		QUANTITY			
Pollutant No.	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	I (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0

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

4.3 RELEASES TO WASTEWATER OR SEWER

Facility: WOODRIF Truckle Mine Physical Chemical Treatment Plant, Mine No. WDR06, 2005, via Permit V

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SECTION A: PRRR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER									
No. Annex II	Name	M/C/E	METHOD		Emission Point 1	QUANTITY			
			Method Code	Description of Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	F (Fugitive) KG/Year
41	Hexachlor	M	US EPA 8087A		0.01	0.01	0.0	0.0	0.0
39	Endrin	M	US EPA 8087A		0.01	0.01	0.0	0.0	0.0
36	Dieldrin	M	US EPA 8087A		0.01	0.01	0.0	0.0	0.0
25	Aldrin	M	US EPA 8087A		0.01	0.01	0.0	0.0	0.0

* Check a row by double-clicking on the Pollutant Name (Column D) 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									
Pollutant No	Name	M/C/E	METHOD		Emission Point 1	QUANTITY			
			Method Code	Description of Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	F (Fugitive) KG/Year
303	BOD	M	ISO 17025 - Standard Methods for the Examination of Water and Wastewater*, 21ed, 2005		1908.55	1908.55	0.0	0.0	0.0
306	COD	M	USEPA approved Hach Method 8000 ISO 17025 - Standard Methods for the Examination of Water and Wastewater*, 21ed, 2005		4301.925	4301.925	0.0	0.0	0.0
240	Suspended Solids	M	ISO 17025 - Methods for the Examination of Waters and Associated Materials published by the HMSO (UK) ISO 17025 - Standard Methods for the Examination of Water and Wastewater*, 21ed, 2005		900.975	900.975	0.0	0.0	0.0
343	Sulphate	M	ISO 17025 - Methods for the Examination of Waters and Associated Materials published by the HMSO (UK) ISO 17025 - Standard Methods for the Examination of Water and Wastewater*, 21ed, 2005		609.352	609.352	0.0	0.0	0.0
314	Fats, Oils and Greases	M	ISO 17025 - Methods for the Examination of Waters and Associated Materials published by the HMSO (UK)		65.6	65.6	0.0	0.0	0.0
238	Ammonia (as N)	M			27.028	27.028	0.0	0.0	0.0

* Check a row by double-clicking on the Pollutant Name (Column D) then click the delete button

4.4 RELEASES TO LAND

| PRTR#: W0105 | Facility Name : Bussar Bhasma Teerana | Filename : W0105_2009.xls | Return Year : 2009 |

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SECTION A : PRTR POLLUTANTS

No. Annex II	POLLUTANT Name	M/C/E	RELEASES TO LAND		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
			METHOD Method Code	METHOD Designation or Description			
					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 No.	POLLUTANT Name	M/C/E	RELEASES TO LAND		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
			METHOD Method Code	METHOD Designation or Description			
					0.0	0.0	0.0

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

PRFR#: W0100 | Facility Name: Bence Biomira Treanta | Permit: W0100_2000_M | Report Year: 2000

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Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Name and Licence / Permit No. of Receiver / Disposer / Broker	Address of Receiver / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	Licence / Permit No. of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	19 12 12	No	39362.81	Mechanically Treated Mixed Waste for Landfill (Commercial / Domestic)	D15	M	Weighted	Offsite in Ireland	Connaught Regional Residual Landfill W0179-01 / Ballydonagh Landfill W0028-02 / Ballyghaderreen Landfill W0059-02 / Derrinmura Landfill W0021-01 / Rathroeen Landfill W0067-01	Connaught Regional Residual Landfill, Kilmacall, Co. Galway / Ballydonagh Landfill, Ballydonagh, Dublin Road, Athlone, Co. Westmeath / Ballyghaderreen Landfill, Aghalusia Townland, Ballyghaderreen, Co. Roscommon / Derrinmura Landfill, Newport, Co. Mayo		
Within the Country	20 02 02	No	4846.37	met	R5	M	Weighted	Onsite in Ireland	Barna Waste W0106-02 / Galway City Council, Carrowbrowne Landfill Site W0013-01	Carrowbrowne, Headford Road, Galway / Galway City Council, Carrowbrowne Landfill Site, Carrowbrowne, Headford Road, Galway		
Within the Country	20 01 01	No	19115.88	Cardboard and Paper	R12	M	Weighted	Abroad	Highlander International Ltd (Broker) SC0044794/CB / Peute Papier Recycling (End User) DO 02.2017 MDO / AWS, Unit 2, Brannia Business Park, Port Pleasant Industrial Estate, Walsend, Newcastle-Upon-Tyne, NE28 6HA / Highlander International Ltd, Highlander House, 1 Teign Grove, East Kilbride, Glasgow G75 8UZ / Asia Global Trade Ltd, 57, Lancaster Gate, London, W2 3NA / Leinster (Broker) SC0044794/CB / Environmentalis, Clermont Business Park, Haggardstown, Dundalk, Co.Louth / Capital Silver Recycling, Quindao, China / Global Material Recycling Limited, Millaphetratum, Corandulla Co. Galway / Material Recycling (Broker) / Marwin Environmental Trading Ltd (Broker), Crookstown, Co. Cork			
To Other Counties	20 01 39	No	3272.2	Plastics	R12	M	Weighted	Abroad				

Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Name and Licence / Permit No. of Receiver / Disposer / Broker	Address of Receiver / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	Licence / Permit No. of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the County	20 01 38	No	7743.46	Timber / Wood / Green	R3	M	Weighted	Offsite in Ireland	Finsa Forest Products Ltd W0013-01	Finsa Forest Products Ltd Scarrif, Co. Clare / Weyherhauser Europe Ltd Redmondstown, Clonmel, Co Tipperary / Midwest Pallets, Station Rd, Ballinroe, Co. Mayo / Greenstar, Cornaught, Regional Residual Landfill, Kilconnell, Co. Galway / Greenstar Galway (End User) / Galway City Council Carrowbrowne Landfill Site, Carrowbrowne, Headford Road, Galway	Returnbatt Ltd, Old Mill Industrial Estate, Kill, Co. Kildare / The Recycling Village, Unit 4 Tenure Business Park, Monasterboice, Drogheda, Co. Louth	Returnbatt EPA – W0105-01 / The Recycling Village WP2007/20
Within the County	16 01 03	No	114.99	Tyres	R12	M	Weighted	Offsite in Ireland	Crossmore Transport WPO22/202 PER 212 & Collection/ Ruane Tyre Recycling Ltd. Permit CW523	Crossmore Transport, Carrigdownane, Kildorrey, Co Cork / Ruane Tyre Recycling Ltd. Carradine, Ballisodare, Co. Mayo	Returnbatt Ltd, Old Mill Industrial Estate, Kill, Co. Kildare / The Recycling Village, Unit 4 Tenure Business Park, Monasterboice, Drogheda, Co. Louth	Returnbatt EPA – W0105-01 / The Recycling Village WP2007/20
To Other Countries	17 04 07	No	1816.43	Metal	R12	M	Weighted	Abroad	S. Norton & Co Ltd (Recycler) NSO / 543946 or WML 195/02/M01 / Emerald Salvage and Recycling Ltd (Recycler) WP-SO-4-27 /AWS YNA/838807/CB / Asia Global Trade Ltd. (Broker)TNE/377134/B / Galway Metal Company (Recycler) WR/05-3 / Davis Materials Recycling Limited, Mulloghadrum, Corundulla, Co. Galway	Newcastle-Upon-Tyne, NE28 6HA / Asia Global Trade Ltd, 57, Lancaster Gate, London, W2 3NA / Galway Metal Company, Oranmore, Co. Galway / Davis Recycling Ltd., 10 The Anchorage Charlotte Quay 4, Co. Dublin / Global Materials Recycling Limited, Mulloghadrum, Corundulla, Co. Galway	Returnbatt Ltd, Old Mill Industrial Estate, Kill, Co. Kildare / The Recycling Village, Unit 4 Tenure Business Park, Monasterboice, Drogheda, Co. Louth	Returnbatt EPA – W0105-01 / The Recycling Village WP2007/20
Within the County	20 01 02	No	1411.75	Glass	R12	M	Weighted	Offsite in Ireland	Tullagower Quarries Ltd 015/05/WP/TCL / Glasston Recycling LN/06/08	Returnbatt Ltd, Old Mill Industrial Estate, Kill, Co. Kildare / The Recycling Village, Unit 4 Tenure Business Park, Monasterboice, Drogheda, Co. Louth	Returnbatt EPA – W0105-01 / The Recycling Village WP2007/20	
Within the County	16 06 01	Yes	10.82	Batteries	R12	M	Weighted	Offsite in Ireland	Returnbatt EPA – W0105-01 / The Recycling Village WP2007/20	Returnbatt Ltd, Old Mill Industrial Estate, Kill, Co. Kildare / The Recycling Village, Unit 4 Tenure Business Park, Monasterboice, Drogheda, Co. Louth	Returnbatt EPA – W0105-01 / The Recycling Village WP2007/20	

Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Name and Licence / Permit No. of Recoverer / Disposer / Broker	Address of Recoverer / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	Licence / Permit No. of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	20 01 10	No	35.26	Clothes	R12	M	Weighted	Offsite in Ireland	Textile Recycling Ltd	Textile Recycling Ltd, Glen Abbey Complex, Belgard Rd., Tallaght, Dublin 24	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12
Within the Country	17 08 02	No	284.7	Gypsum / Plasterboard	R12	M	Weighted	Offsite in Ireland	Gypsum Recycling Ireland Ltd WIP 238/2006	Gypsum Recycling Ireland Ltd, Rathcoffey, Donecdea, Naas, Co. Kildare	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12
Within the Country	20 01 23	Yes	37.65	Fridges& Freezers	R12	E	Volume Calculation	Offsite in Ireland	Technec Ireland Ltd W0233-01	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12	Technec Ireland Ltd W0233-01
Within the Country	20 01 35	Yes	60.24	TVs and PC monitors	R12	E	Volume Calculation	Offsite in Ireland	Technec Ireland Ltd W0233-01	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12	Technec Ireland Ltd W0233-01
Within the Country	20 01 36	No	52.71	Mixed WEEE	R12	E	Volume Calculation	Offsite in Ireland	Technec Ireland Ltd W0233-01	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12	Technec Ireland Ltd, Unit 51, Park West Industrial Estate, Nangor Road, Dublin 12	Technec Ireland Ltd W0233-01
Within the Country	20 03 04	No	256.38	Sludge	R12	M	Weighted	Offsite in Ireland	Enviro-Grind Ltd ENV/143W/P4/ Galway City Council, Carrubrowne Landfill Site W0013-01	Enviro-Grind Ltd, Donegal Rd, Pettigo, Co. Donegal / Galway City Council, Carrubrowne Landfill Site, Headford Road, Galway	Enviro-Grind Ltd, Donegal Rd, Pettigo, Co. Donegal / Galway City Council, Carrubrowne Landfill Site, Headford Road, Galway	Enviro-Grind Ltd, Donegal Rd, Pettigo, Co. Donegal / Galway City Council, Carrubrowne Landfill Site, Headford Road, Galway
Within the Country	20 01 08	No	443.4	Food Waste	R12	M	Weighted	Offsite in Ireland	Enviro-Grind Ltd ENV/143W/P4/ Galway City Council, Carrubrowne Landfill Site W0013-01	Enviro-Grind Ltd, Donegal Rd, Pettigo, Co. Donegal / Galway City Council, Carrubrowne Landfill Site, Headford Road, Galway	Enviro-Grind Ltd, Donegal Rd, Pettigo, Co. Donegal / Galway City Council, Carrubrowne Landfill Site, Headford Road, Galway	Enviro-Grind Ltd, Donegal Rd, Pettigo, Co. Donegal / Galway City Council, Carrubrowne Landfill Site, Headford Road, Galway

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