

## 1. INTRODUCTION

Cavan Waste Disposal Ltd. Killygarry Industrial Park, Cavan, Co. Cavan, hold a Waste License (Reg. No. W0207-01), issued on the 28<sup>th</sup> June 2005, to operate a Waste Transfer Station. In accordance with the requirements of Condition 12.6 of the Waste License, an Annual Environmental Report (AER) for the facility must be submitted to the Environmental Protection Agency (EPA).

The facility is located at:-

Cavan Waste Disposal,  
Killygarry Industrial Park,  
Cavan,  
Co. Cavan.

Tel: (049) 4362 930 Fax: (049) 4362 151

## 2. DESCRIPTION OF THE SITE

The facility is situated approximately 1km south-east of Cavan Town and lies on the periphery of the Killygarry Industrial estate. The site is bounded by the industrial estate to the east and south, with a wastewater treatment plant located to the north and agricultural pastoral lands to the west.

Waste handling activities at the site consist of accepting and bulk loading of Commercial & Industrial waste and C&D waste for transfer to other recycling depots. In addition, where possible, Recyclable Waste (cardboard, glass, plastic, timber and metal) is recovered from the waste streams and sent for further recycling.

The licensed waste activities, permitted under the Third and Fourth Schedule of the Waste Management Acts (1996 to 2003), in the Waste Licence (W0207-01) are as detailed below:

*Third Schedule, Class 11.* Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this schedule.

*Third Schedule, Class 12.* Repackaging prior to submission to any activity referred to in a preceding paragraph of this schedule.

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

*Fourth Schedule, Class 2.* Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).

*Fourth Schedule, Class 3.* Recycling or reclamation of metals or metal compounds.

*Fourth Schedule, Class 4.* Recycling or reclamation of other inorganic materials.

*Fourth Schedule, Class 11.* Use of waste obtained from any activity referred to in a preceding paragraph of this schedule.

*Fourth Schedule, Class 12.* Exchange of waste for submission to any activity referred to in a preceding paragraph of this schedule.

*Fourth 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.

No hazardous wastes or liquid wastes are accepted at the facility. Waste that enters the facility is mostly unprocessed. On arrival the waste is checked and load details recorded at the weighbridge. Waste is then inspected and segregated into either recyclable or non-recyclable waste, processed and the materials are loaded for recycling at another waste licensed facility. Non-Recyclable waste is sent for disposal.

## **2.1 Process Operations**

There are a number of waste operations that are in place. Table 1 details the operations involved with each of the waste types received:

**Table 1: Waste Processing Operations**

<b>Waste Description</b>	<b>Process Operation</b>
Commercial/Industrial Skip Waste	Waste is brought on site in either skip or roll on roll off type container. Loads consist of mixed waste types that require further processing or may be of a specific waste type. All loads are weighed in with the load details being recorded on the weighbridge system. On clearance from the weighbridge the loads are directed to either the waste transfer building or to specific bays located outside the waste transfer building. Waste entering the transfer building is tipped, inspected and segregated into recyclable waste requiring further processing. Residual waste is sent to Corranure/Scotch Corner landfill.
Construction and Demolition Waste (C&D)	Mixed C&D waste is tipped in the waste transfer building. The load is then inspected for unacceptable items such as plasterboard and styrofoam. The remaining waste is then stockpiled prior to being sent for further processing.
Wood Products	Wood is tipped in a timber bay. Timber is shredded on site and sent to Finsa for further processing. Some is sent to farmers for use as animal bedding, and to Corranure Landfill. Timber Shredding ceased in May with wood being sent to Enrich Environmental for further processing
Mixed Ferrous Metals and non Ferrous metals	Mixed metals are stored in a metal bay and sent predominantly to Clearway Recycling Ltd. Other outlets for segregated metals e.g. Steel/ Aluminium Packaging to Gormley Metals, Old Aluminium to Treanor Metals and Copper Wire to P.Carneys Ltd.
Glass	Glass is stored separately in bays on site and sent to either Glassdon Recycling, Co.Antrim, Oxigen Environmental, Ballymount or Glassco Recycling Co. Kildare.
Cardboard & Paper	Cardboard and Papers are sent to Oxigen Environmental Ltd. Ballymount.

<b>Waste Description</b>	<b>Process Operation</b>
Plastic	Segregated plastic is sent to mainly Retech Processing Ltd., with plastic bottles/container sent to Oxigen Environmental Ltd. Ballymount.
Household/Municipal Waste	No Household Municipal Waste is currently accepted on site. Municipal waste was accepted however for a period period in December as agreed by the EPA. During this period the waste tipped in the processing shed, where it was loaded on the same day into open top ejector trailers and brought to a licensed facility/landfill, namely Scotch Corner Landfill, Monaghan.
Dry Recyclables	Cavan Waste Disposal collects Dry Recyclables from a large number of households/Commercial customers in the Cavan and the surrounding region. The dry recyclables is tipped in the processing shed, where it is inspected prior to being sent to Oxigen Environmental Ltd. Ballymount and Oxigen Environmental Ltd. Dundalk.
Gypsum	Gypsum material is sent to Envirogrind, Co. Donegal
Green Waste	Green waste material is mainly sent to Enrich Environmental Co. Meath, with some sent to Envirogrind, Co. Donegal.

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### 3.0 ENVIRONMENTAL MONITORING AND EMISSIONS DATA

Environmental monitoring results for the reporting period are outlined in the following sections. An interpretation of the results and impacts on the environment are also presented. Copies of the original monitoring reports are submitted to the Agency once the report has been completed and received by Cavan Waste Disposal.

#### 3.1 Wastewater Emissions

Schedule D of Waste License W0207-01 requires that wastewater emissions be monitored bi-annually. The samples collected are analysed for pH, Biological Oxygen Demand, Chemical Oxygen Demand, Suspended Solids, Ammonia Nitrogen, Mineral Oil and Sulphate. All sampling and analysis was carried out by trained BHP personnel.

One wastewater sampling point is present on the site. This has been designated as FW1. Monitoring was undertaken in March and July as per requirements of Schedule D.5.1 Wastewater Emissions.

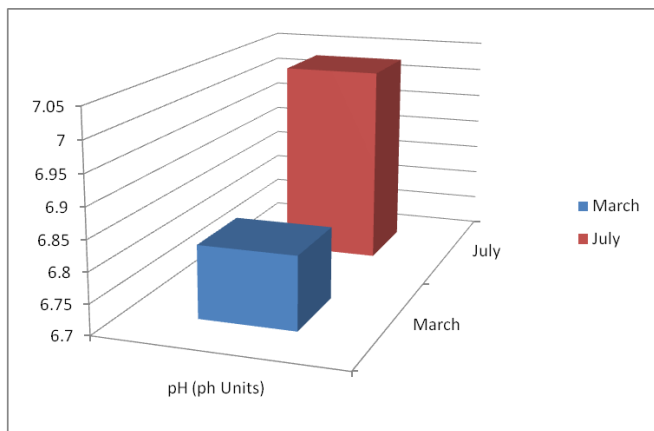
A summary of results for all samples taken from the 1<sup>st</sup> of January to 31<sup>st</sup> of December 2009 is given in Table 2 and illustrated in Figures 1 to 7.

**Table 2: Wastewater Emissions (FW1)**

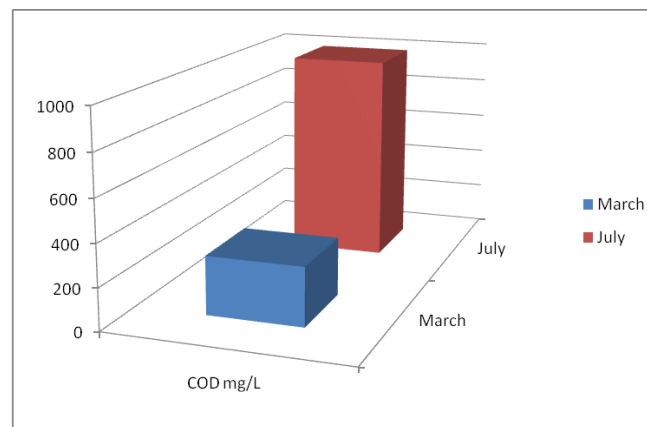
Month	pH pH Units	COD mg/L	BOD mg/L	Ammonia mg/L	Mineral Oil ug/L	Suspended Solids mg/L	Sulphate mg/L
March	6.82	280	417	7.5	<0.1	134	751.4
July	7.03	996	360	5.7	<0.1	59	232.4

Schedule C of Waste License W0207-01 sets specific emission limit values. No Emission limits are stated for Wastewater Emissions.

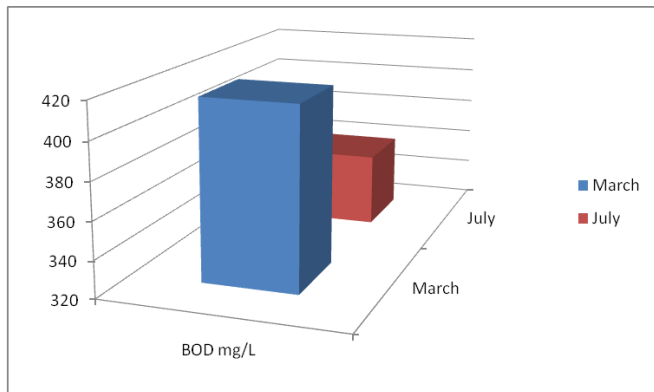
**Figure 1: pH**



**Figure 3: COD**



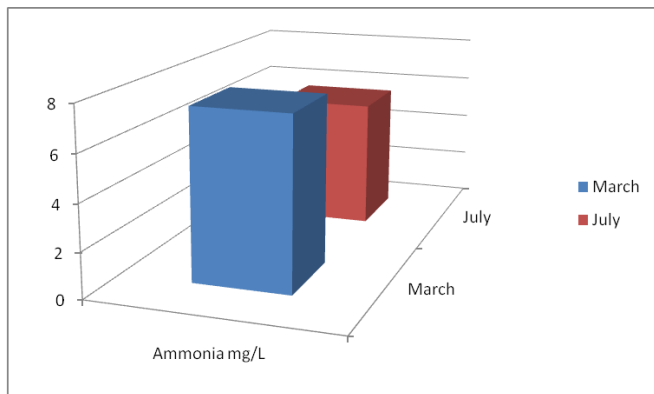
**Figure 2: BOD**



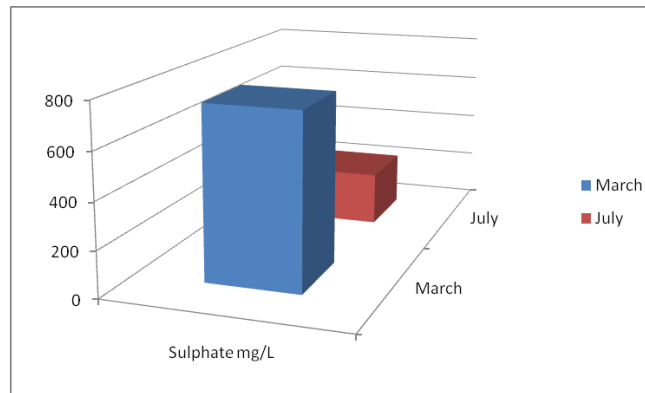
**Figure 4: Suspended Solids**



**Figure 5: Ammonia**



**Figure 7: Sulphate**



**Figure 6: Mineral Oil**

(Both Samples were less than 0.1mg/l)

### 3.2 Surface Water Monitoring

Schedule D: Monitoring of Waste Licence W0207-01 states surface water monitoring is to be undertaken quarterly. Monitoring was undertaken on the 22<sup>nd</sup> of January, the 22<sup>nd</sup> of April, the 16<sup>th</sup> of July and the 16<sup>th</sup> of October 2009.

Monitoring was undertaken for pH, COD, Ammonia Nitrogen, Chloride, Sulphate, Suspended Solids, Conductivity and Mineral Oils. Monitoring points SW-1 to SW-4 are presented in Tables 3 to 6 and illustrated in Figures 8 to 14. SW-5 is a nonexistent monitoring location on the site.

**Table 3: SW-1**

SW1	pH (ph Units)	COD mg/L	Ammonia mg/L	Conductivity uScm-1	Chloride mg/L	Mineral Oil mg/L	Suspended Solids mg/L	Sulphate mg/L
Jan	6.62	120	0.02	683	52.7	<0.01	85	91.3
April	7.18	87	0.12	897	38.8	<0.01	36	206.7
July	7.45	26	0.02	594	66.3	<0.01	12	125.7
Oct	7.05	12	<0.01	634	8.2	<0.01	1765	34.2

**Table 4: SW-2**

SW2	pH (ph Units)	COD mg/L	Ammonia mg/L	Conductivity uScm-1	Chloride mg/L	Mineral Oil mg/L	Suspended Solids mg/L	Sulphate mg/L
Jan	6.85	1	<0.01	447	19.4	<0.01	33.2	24.3
April	7.21	18	10	557	20	<0.01	43	72.7
July	7.26	360	0.38	658	32	<0.01	108	71.5
Oct	7.42	41	0.34	600	11.1	<0.01	415	26.2

**Table 5: SW-3**

SW3	pH (ph Units)	COD mg/L	Ammonia mg/L	Conductivity uScm-1	Chloride mg/L	Mineral Oil mg/L	Suspended Solids mg/L	Sulphate mg/L
Jan	6.85	<1	<0.01	704	35.4	<0.01	4	82.9
April	7.36	19	21	595	16.3	<0.01	28	82
July	7.29	58	<0.01	631	33.5	<0.01	43	160.5
Oct	7.42	13	0.07	637	10.9	<0.01	22	34.7



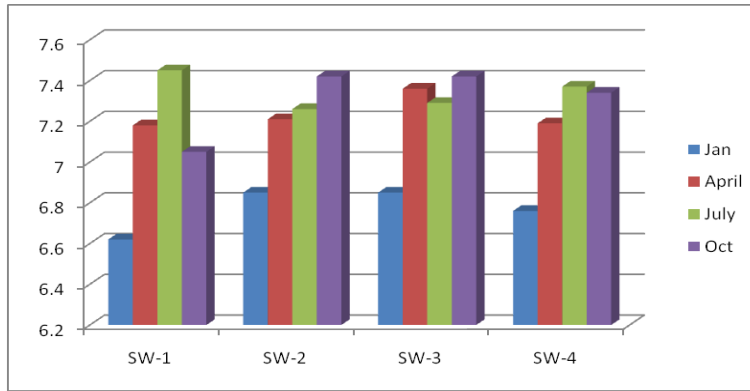
**Table 6: SW-4**

<b>SW4</b>	<b>pH (ph Units)</b>	<b>COD mg/L</b>	<b>Ammonia mg/L</b>	<b>Conductivity uScm-1</b>	<b>Chloride mg/L</b>	<b>Mineral Oil mg/L</b>	<b>Suspended Solids mg/L</b>	<b>Sulphate mg/L</b>
<b>Jan</b>	6.76	<1	<0.01	639	31	<0.01	12.8	68.6
<b>April</b>	7.19	40	0.2	576	35.9	<0.01	117	67.1
<b>July</b>	7.37	31	0.01	649	27.4	<0.01	26	162.3
<b>Oct</b>	7.34	46	7.04	677	10.4	<0.01	482	25.1

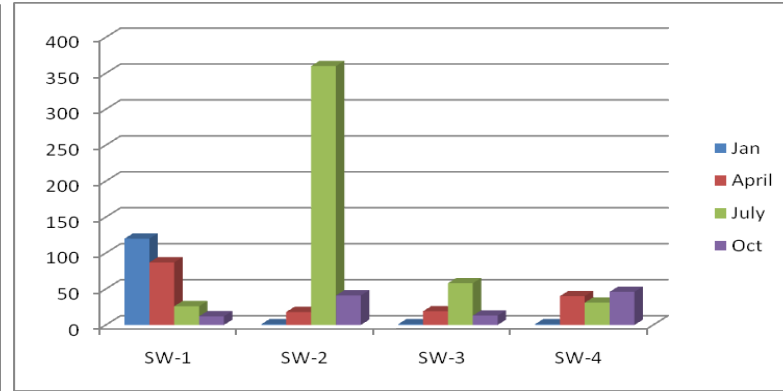
The only emission limit provided on the Waste Licence W0207-01 is for Mineral Oils, a limit of 5mg/l applies.

In all quarterly samples, the Mineral Oil results for each monitoring point SW-1 to SW-4 were <0.01mg/L.

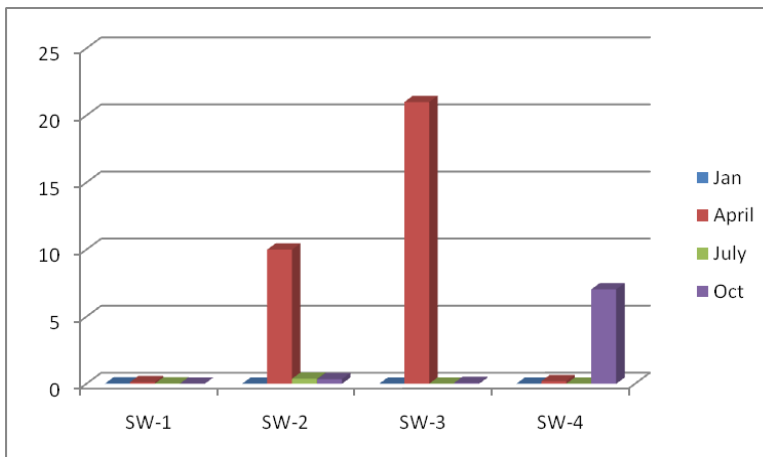
**Figure 8: pH (pH units)**



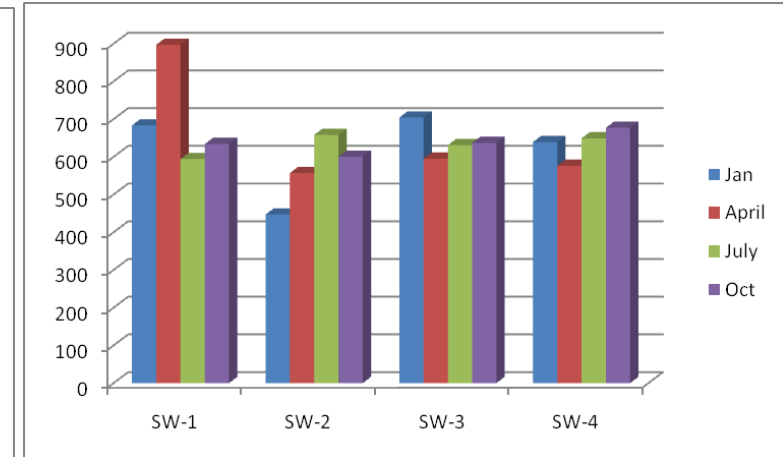
**Figure 10: COD (mg/L)**



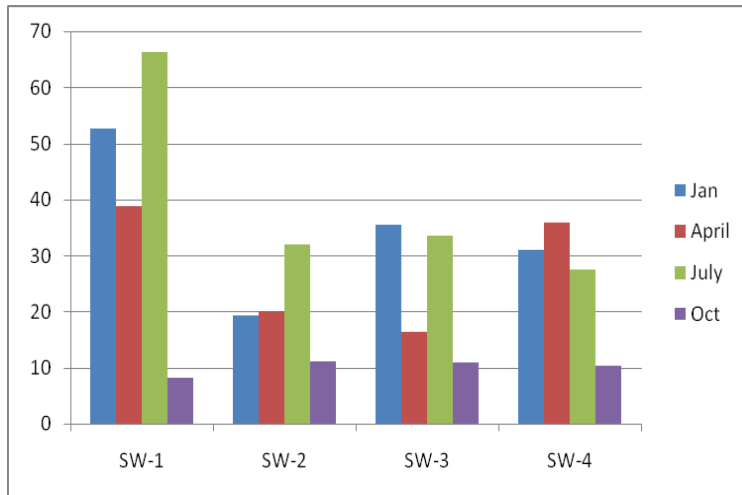
**Figure 9: Ammonia (mg/L)**



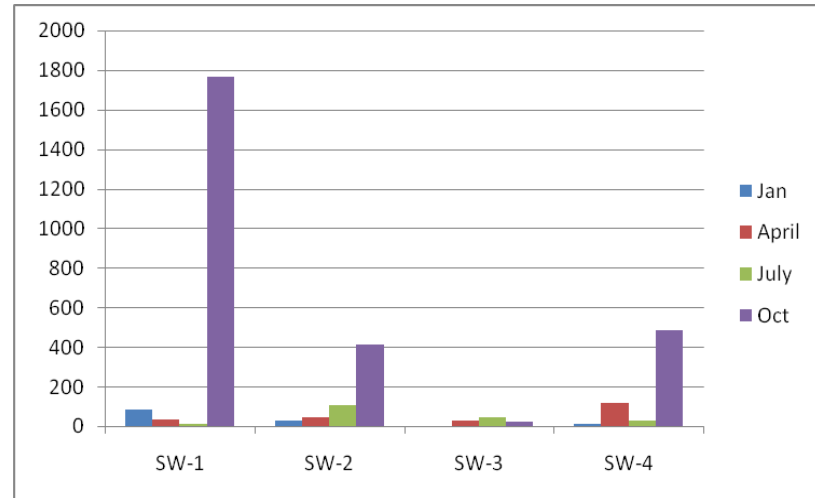
**Figure 11: Conductivity (uScm<sup>-1</sup>)**



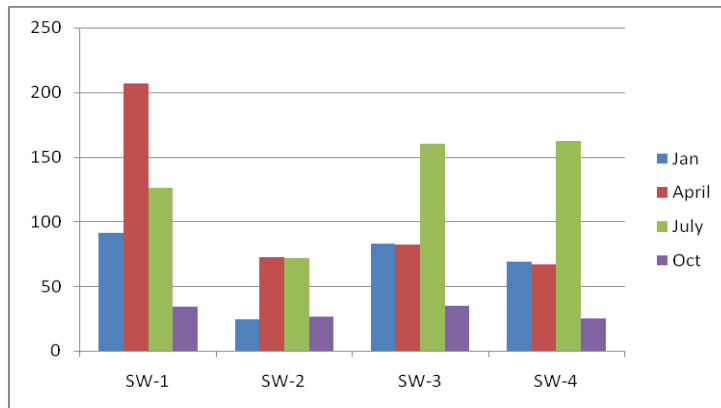
**Figure 12: Chloride (mg/L)**



**Figure 14: Suspended Solids (mg/L)**



**Figure 13: Sulphate (mg/L)**



### 3.2 Noise Monitoring

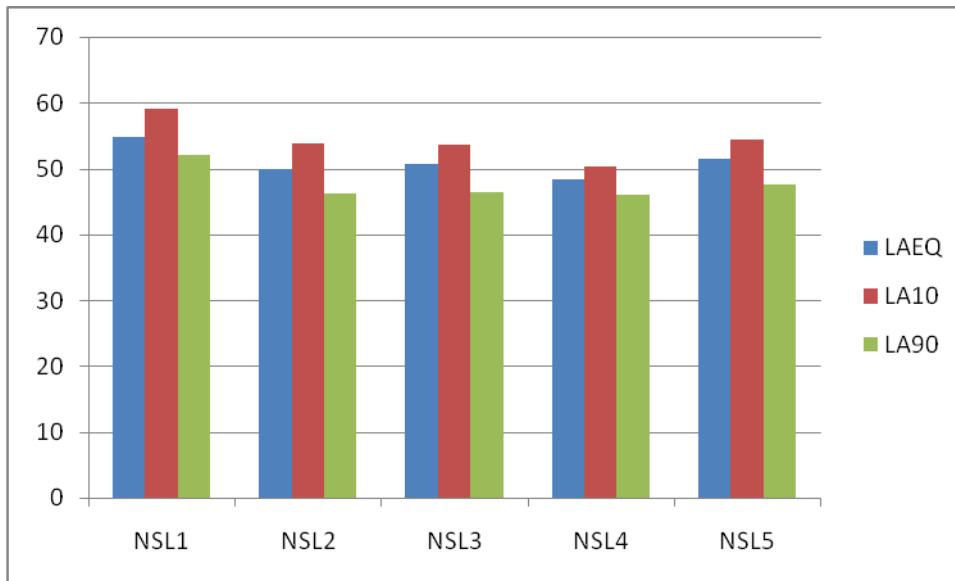
As required in Schedule C.1 of Waste License W0207-01, noise monitoring is required on an annual basis at 5 locations on the site. The noise monitoring survey was undertaken on the 22<sup>nd</sup> of December 2009.

Ambient monitoring results are presented in Table 7 and Figure 15. Octave band analysis was also carried out to determine whether tonal or impulsive noise components existed as a result of the on-site activities.

**Table 7: Daytime Noise Monitoring Results (dB)**

December	NSL1	NSL2	NSL3	NSL4	NSL5
L <sub>AEQ</sub>	54.8	49.9	50.7	48.3	51.4
L <sub>A10</sub>	59	53.8	53.6	50.4	54.4
L <sub>A90</sub>	52	46.3	46.5	46.1	47.5

**Figure 15: Daytime Noise Monitoring Results Summary (December 2009)**



The locations chosen for the survey were at points along the boundary walls of the site locations N1, N2, N3, N5 and NSL5. The purpose of selecting the boundary locations was to evaluate the noise being generated during normal daytime working conditions at the site. Noise Location N4 is located to the east of the site centre. NSL 2 was chosen as a Noise Sensitive location as a dwelling house located North-West of the site.

Cavan Waste Disposal is located at the back of an industrial park, with agricultural lands surrounding the site. The main contributory offsite noise sources are birdsong and intermittent animal noises and distant traffic noise. Site noise sources include general noise of machinery movement to, from and around the site, including revving and reverse warning signals, also activities in the Processing shed.

The Emission Limit Values specified in Waste License W0207-01, Schedule C.1 were 55 dB(A) for daytime and 45 dB(A) for night-time activities.

All day time Noise Levels at monitoring locations were below the recommended daytime noise limit value of 55dB (A). There was no evidence of a tonal or impulsive component to the noise attributable to the site operation.

### 3.3 Air Quality/Dust Monitoring

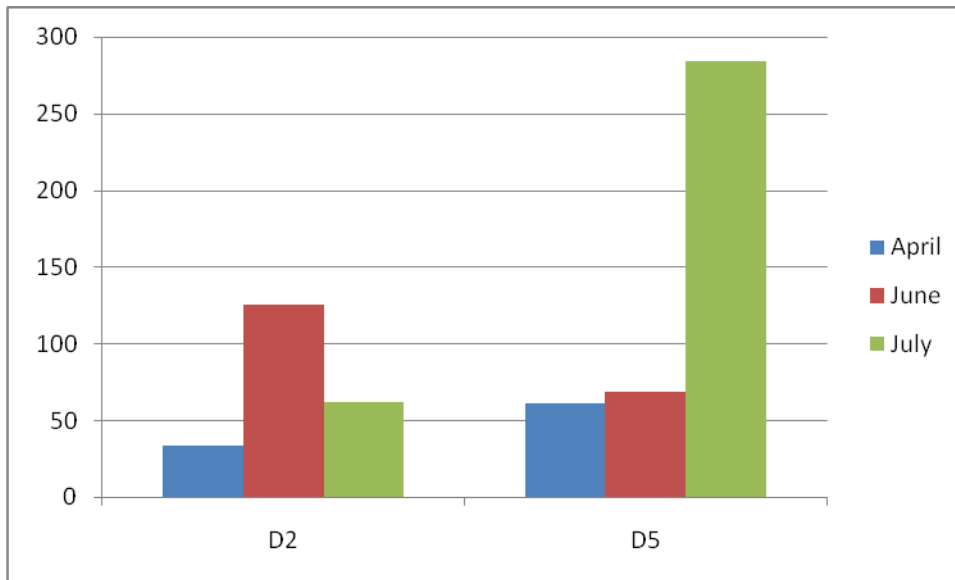
Three dust monitoring surveys were carried out during 2009, April, June and July at two locations D2 and D5, in compliance with Schedule D.2 of Waste License W0207-01, to determine the impact of site operations on the surrounding environment.

The locations of the dust gauges are shown on the attached monitoring location map. Results of monitoring are presented in Table 8 and Figure 17.

**Table 8: Dust Monitoring Results**

Location	April	June	July	ELV(mg/m <sup>2</sup> /day)
D2	33.7	125.6	62.2	350
D5	61.2	68.3	283.9	350

**Figure 16: Dust Deposition Rates (mg/m<sup>2</sup>/day)**



The Emission Limit Values specified in Waste License W0207-01, Schedule C.2 stipulates a dust deposition limit of 350 (mg/m<sup>2</sup>/day).

The results show dust monitoring at D2 and D5 were both compliant.

### **3.4 Complaints handling**

There were no complaints received at the Cavan Waste Disposal facility in 2009.

#### 4.0 SITE DEVELOPMENT WORKS

The site development works carried out during the reporting period are summarized in Table 9 below:

**Table 9: Site Development Works during the Reporting Year 2009**

<b>Development</b>	<b>Date</b>
Operation of Wood Chipping on the site ceased	June
Operation of onsite Trommel Segregation ceased	June
Introduction of Manual Weigh In System	August



## 5.0 WASTE RECEIVED AND CONSIGNED BY THE FACILITY

### 5.1 Waste Received

Waste accepted at the waste transfer and recycling facility is comprised of Commercial and Industrial Waste, C&D Waste and Dry Recyclables from the “green bin” collection service. The waste received at the facility during the reporting period amounted to 15,803 tonnes which is 9,187 tonnes below the limit of 24,990 tonnes per annum set in Waste License W0207-01.

Table 10 gives the total quantities of waste accepted into the facility as opposed to the total quantities of materials specified to be accepted as per waste Licence W0207-01.

**Table 10: Waste Transferred Waste Transfer Facility (Metric Tonnes)**

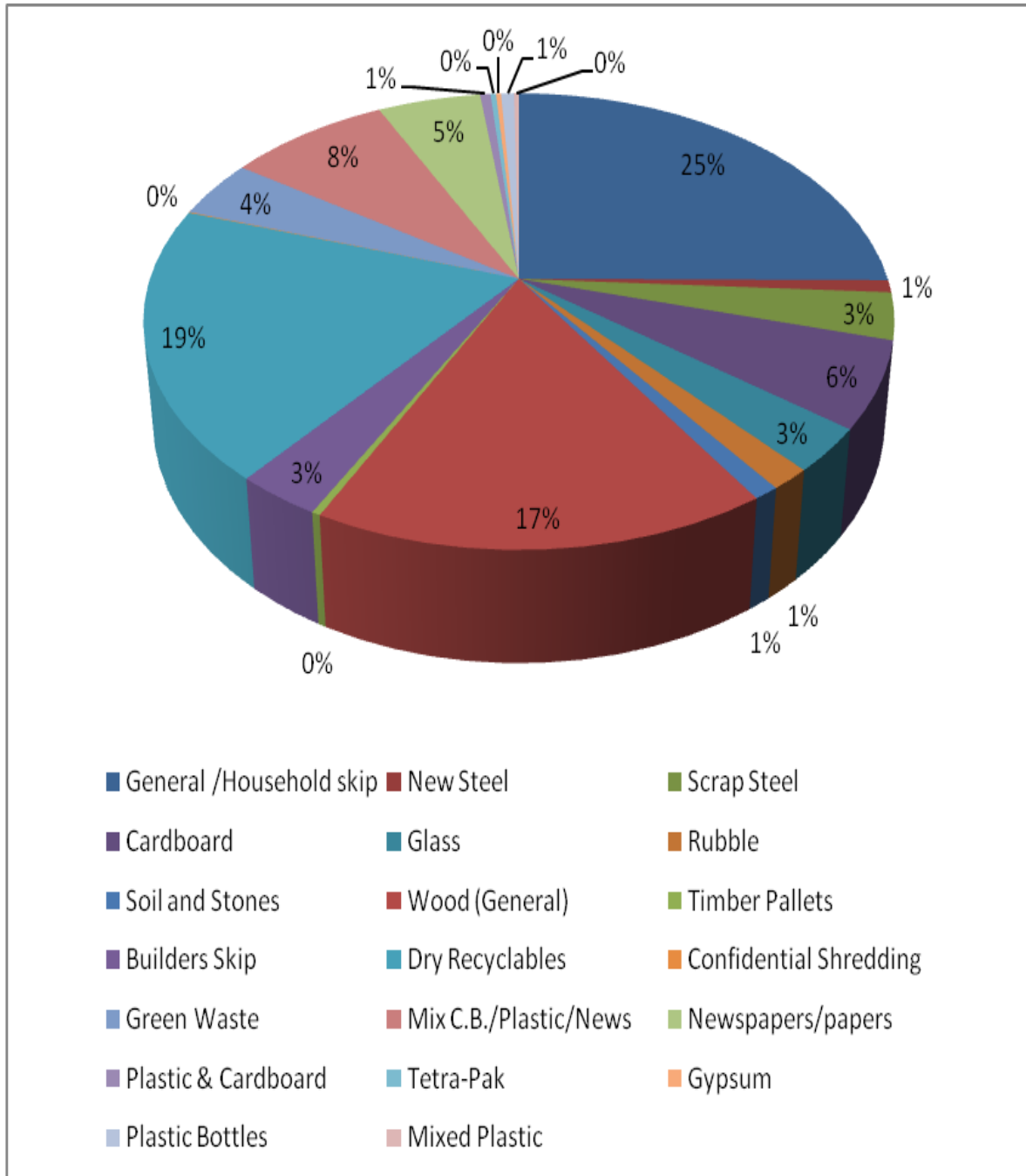
<b>Waste Type</b>	<b>Max(Tonnes per annum) as per Waste Licence W0207-01</b>	<b>Tonnes accepted into the facility 2009</b>
<b>Total</b>	24,990	15,803

The relative quantities of waste accepted into the facility during the reporting period are summarised in Table 11 and a graphical representation of the waste types can be seen in Figure17.

**Table 11: Breakdown of Waste coming into Facility on a month by month basis (Metric Tonnes)**

Waste Type	EWC Codes	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
General /Household skip	20 03 01	410.12	302.28	320.88	296.38	284.96	297.76	286.42	309.14	369.62	302.2	277.36	499.82	3956.94
New Steel	20 01 40	14.66	19.12	8.9	8.22	6.88	0	17.4	12.68	19.16	11.34	6.88	12.6	137.84
Scrap Steel	20 01 40	37.44	44.16	46.06	61.54	46.24	59.94	42.13	40.5	47.38	43.7	26.96	27	523.05
Cardboard	15 01 01	88.38	83.1	76.5	83.22	87.22	85	80.74	82.4	79.11	78.84	64.12	69.1	957.73
Glass	15 01 07	49.92	35.54	33.36	48.5	35.18	38.06	42.32	42.7	35.52	43.86	28.26	48.08	481.3
Glass Clear	15 01 07	0	0	0	0.84	1.48	0	0	0	0	0	0	0.76	3.08
Rubble	17 01 07	24.86	17.58	17.32	22.34	13.96	20.6	26.76	8.72	15.28	28.2	21.84	17.66	235.12
Soil and Stones	17 05 04	0		0	31.96	33.7	22.46	21.36	0	39.04	0	0	0	148.52
Wood (General)	20 01 38	452.3	582.28	551.4	509.52	82.2	66.58	68.14	75.24	80.78	55.36	53.48	33.9	2611.18
Timber Pallets	15 01 03	7.32	8.22	4.56	5.14	3.04	3.82	2.62	0.86	2.62	2.88	6.26	2.72	50.06
Builders Skip	17 09 04	29.56	39.94	46.9	51.24	36.72	30.74	137.98	79.68	8.42	5.24	12.3	15.62	494.34
Dry Recyclables	20 03 01	260.18	258.38	219.98	274.86	232.11	257.78	257.87	256.1	253.9	251.84	290.08	227.08	3040.16
Confidential Shredding	20 01 01	1.26	0.28	1.18	1.98	2.14	1.56	0.68	0.2	0.32	0.08	0.1	0	9.78
Green Waste	20 02 01	37.22	27.74	41.82	49.22	64.68	82.76	67	79.06	85.98	48.92	60.2	19.1	663.7
Mix C.B./Plastic/News	15 01 06	119.32	99.74	104.92	123.07	111.66	101.12	124.28	102.92	104.92	122.14	76.68	114.92	1305.69
Newspapers	20 01 01	46.52	47.82	51.58	49.14	54.2	56.88	78.6	58.08	64.62	61.72	62.14	63.82	695.12
Plastic & Cardboard	15 01 06	11.82	4.48	4.7	6.4	14.16	14.4	4.7	0	4.52	4.74	0	14.18	84.1
Tetra-Pak	15 01 05	3.96	3.18	4.28	3.74	4.36	3.46	4.78	3.18	3.26	4.42	3.28	3.46	45.36
Mixed Papers	20 01 01	33.34	9.72	23.84	17.42	9.82	15.12	0	14.18	9	0	8.8	0	141.24
Gypsum	17 08 02	1.88	4.52	2.48	4.38	6.36	2.52	2.72	2.58	7.12	0.9	3.68	1.66	40.8
Plastic Bottles	20 01 39	9	6.82	7.26	11.16	8.52	9.54	10.72	7.54	9.46	8.5	7.5	10.1	106.12
Mixed Plastic	15 01 02	1.22	0	2.28	0.72	2.68	1.72	0	8.82	4.14	9.4	5.24	1.92	38.14
Aluminium Packaging	15 01 04	1.28	0	0	0.92	1.36	0	0.06	0	0	1.64	0.76	2.06	8.08
Tyres	16 01 03	0	0	4.8	0	0	0	4.46	0	0	4.14	0	0	13.4
hard plastics	20 01 39	0	0	0	0	0	0	1.94	0	0	0	0	0	1.94
Copper Wire											0.84	0	0	0.84
Steel Pkn	15 01 04	0	0	0	0	0	0	0	0	0	0	0.58	8.56	9.14
<b>TOTALS</b>		<b>1641.56</b>	<b>1594.9</b>	<b>1575</b>	<b>1661.91</b>	<b>1143.63</b>	<b>1171.82</b>	<b>1283.7</b>	<b>1184.58</b>	<b>1244.17</b>	<b>1090.9</b>	<b>1016.5</b>	<b>1194.12</b>	<b>15802.8</b>

**Figure 17: Waste Accepted into Cavan Waste Disposal facility**



## **5.2 Quantities of Waste Disposed or Recycled**

Waste collected and brought to Cavan Waste Disposal facility was sent for recycling/disposal to a number of different licensed facilities.

Non-Recyclable waste is disposed of at Corranure landfill, with some material sent to Scotch Corner Landfill, Co. Monaghan in December.

Cardboard was sent to Oxigen Environmental, Ballymount, Paper and Confidential Shredding is also sent to Oxigen Environmental, Ballymount.

Shredded timber was sent to Finsa, Co. Clare, Corranure Landfill, and also individual farmers who accepted shredded timber for use as animal bedding. In June 2009, timber shredding ceased on site and wood received from this date was then sent to Enrich Environmental, Co. Meath.

Dry recyclables collected from the “green bin” operations were sent to Oxigen Environmental, Ballymount and also to Oxigen Environmental, Dundalk.

Tetra Pak was sent to Oxigen Environmental, Ballymount.

C&D material went mainly to Oxigen Environmental, Ballymount and Clean Rubble to Corranure landfill, and some sent to individual farmers for infilling/development works.

Metal packaging and scrap metals are primarily sent to Clearway Disposal Ltd., Co. Armagh, with a small proportion to Gormley Metals and Treanor Metals. Copper Wire is sent to P.Carney Ltd.

All glass types were sent to Glassdon Recycling, Co. Antrim, Oxigen Environmental, Ballymount or Glassco Recycling in Co. Kildare.

Gypsum was sent to Enviro Grind Ltd, Co. Donegal. With green waste sent to both Enviro Grind Ltd, Co. Donegal and Enrich Environmental, Co. Meath.

Plastic packaging is sent mainly to Retech Processing, Cootehill, Co. Cavan.

Batteries recovered on site were sent to The Recycling Village, Co. Louth and Returnbatt, Co. Kildare.

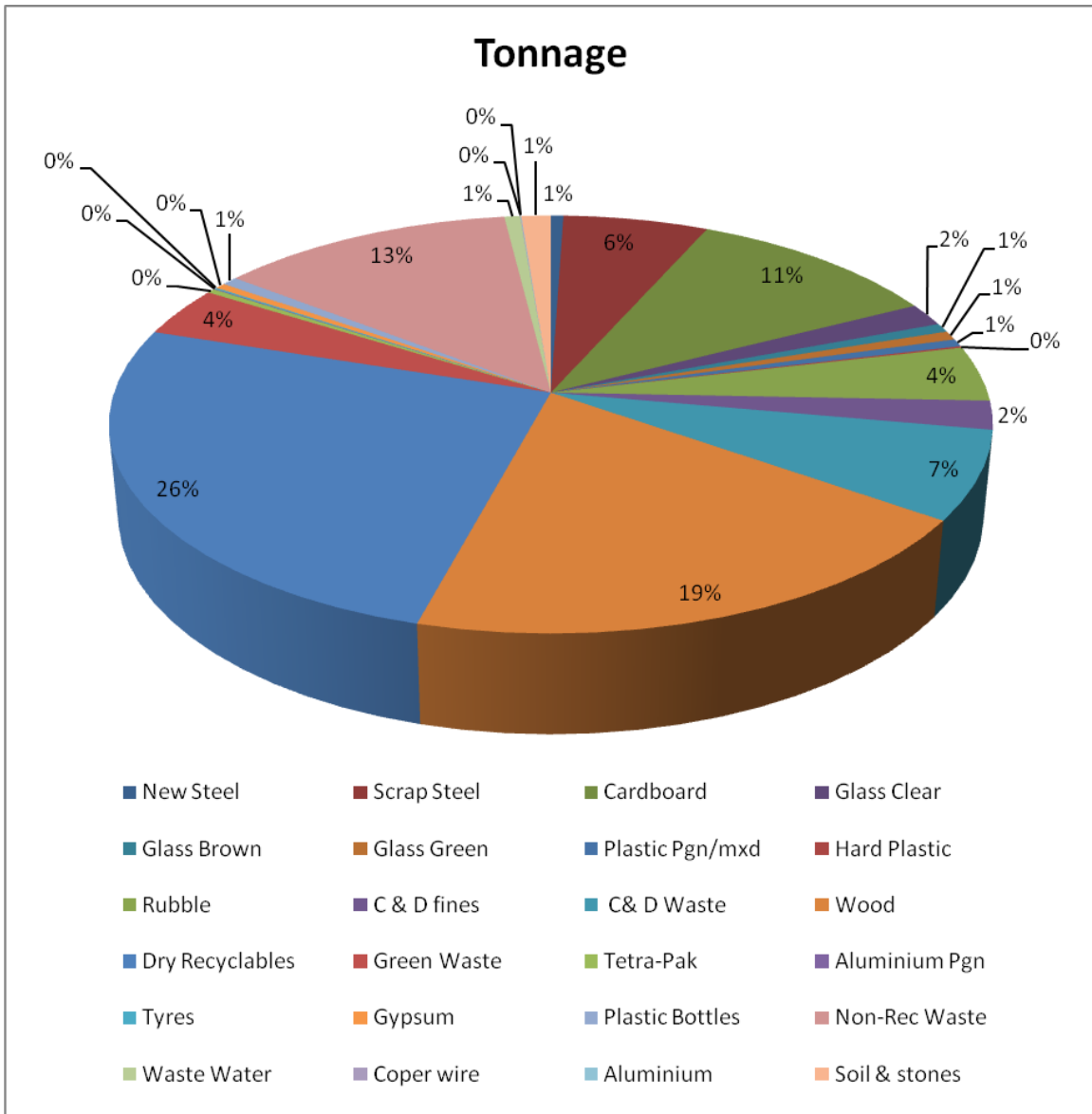
All facilities are either fully licensed by the EPA or permitted by the relevant Local Authority. Consignments to facilities in the North of Ireland are covered by Trans Frontier Shipment Forms (TFS) obtained from Cavan County Council and the relevant Northern Ireland Authorities where applicable.

The relative quantities of waste removed from the facility for disposal/recycling during the reporting period are summarised in Table 12 and a graphical representation of the waste types can be seen in Figure14.

**Table 12: Monthly Waste Quantities removed from Cavan Waste Transfer and Recycling Facility (Metric Tonnes)**

Waste Type	EWC Codes	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
New Steel	20 01 40	22.4	11.06	0	9.54	0	0	11.26	0	0	8.82	10.24	12.78	<b>86.1</b>
Scrap Steel	20 01 40	82.54	82.12	99.36	87.38	86.38	119.4	84.72	77.06	112.53	69.12	59.19	39.4	<b>999.16</b>
Cardboard	15 01 01	176.4	161.78	153.12	172.7	151.28	140.3	149.06	132.24	137.9	136.94	134.8	108.82	<b>1755.28</b>
Glass Clear	15 01 07	46.7	0	26.62	27.92	13.82	23.28	38.74	12.78	23.52	22.2	25.3	23.78	<b>284.66</b>
Glass Brown	15 01 07	14.64	0	15.62	14.02	0	15.3	13.66	0	13.24	12.78	0	13.08	<b>112.34</b>
Glass Green	15 01 07	16.6	0	15.28	14.94	0	14.24	11.26	0	13.18	14	12.66	0	<b>112.16</b>
Plastic Pgn/mxd	15 01 02	9.46	8.34	6.8	11.38	6.5	5.14	6.6	2.4	13.3	7.16	14.96	3.54	<b>95.58</b>
Hard Plastic	20 01 39	2.42	2.06	0.42	1.22	0	0	6.58	0	2.26	1.96	2.88	0.76	<b>20.56</b>
Rubble	17 01 07	91.58	81.9	109.22	85.66	33.28	61.9	54.5	35.02	20	56.92	41.94	23.88	<b>695.8</b>
C & D fines	19 12 12	69.16	19.76	109.66	86	47.76	28.38	0	0	0	0	0	0	<b>360.72</b>
C& D Waste	170904	0	0	0	0	95	114.4	199.66	188.1	156.52	135.86	109.58	116.24	<b>1115.34</b>
Wood	20 01 38	599.6	569.16	631.38	591.2	157.2	104.7	101.36	90.34	106.38	74.88	84.52	54.78	<b>3165.46</b>
Dry Recyclables	20 01 01	361.4	304.8	288.46	325.8	353	367.9	385.38	341.11	379.39	351.72	363.46	370.38	<b>4192.72</b>
Green Waste	20 02 01	41.7	30.66	42.1	41.32	54.6	91.14	68.54	67.82	91.4	44.42	29.5	25.76	<b>628.96</b>
Tetra-Pak	15 01 05	7.16	4.02	5.12	2.76	7.94	3.7	5.44	5.4	5.46	3.02	0	4.68	<b>54.7</b>
Aluminium Pgn	15 01 04	0.72	0.38	1.06	0.64	0	0.38	1.22	0	1.34	0	2.38	0.7	<b>8.82</b>
Tyres	16 01 03	0	0	6.24	0	0	0	4.84	0	0	6.78	0	0	<b>17.86</b>
Gypsum	17 08 02	0	11.42	7.7	7.68	7.42	0	0	10.04	15.8	0	10.4	0	<b>70.46</b>
Plastic Bottles	20 01 39	12.74	7.82	7.06	10.5	9.42	9.86	8.24	7.16	10.4	8.9	7.66	8.92	<b>108.68</b>
Non-Rec Waste	20 39 01	297.46	143.6	224.42	184.8	140.74	122.6	103.2	101.36	121.42	99.84	123.96	372.81	<b>2036.21</b>
Waste Water	20 03 99	9.28	9.86	0	23.16	15.24	4.36	5.38	10.92	5.56	5.14	10.46	8.62	<b>107.98</b>
Coper wire	20 01 40	0	0	0	0	0	1.8	0	0	0	0	1.92	0	<b>3.72</b>
Aluminium	20 0140	0	0	0	0	0	2.98	1.28	0	0	0	0	0	<b>4.26</b>
Soil & stones	17 05 04	0	0	0	0	0	0	83.98	29.92	63.64	25.44	0	0	<b>202.98</b>
Gas cylinders	16 05 04	0	0	0	0	0	0	0.72	0	0	0	0	0	<b>0.72</b>
batteries	16 06 01	0	0	0	0	0	0	0.94	0	0	0	0	0	<b>0.94</b>
Clothes	20 01 10	0	0	0	0	0	0	0	0	0.56	0	0	0	<b>0.56</b>
Copper	20 01 40	0	0	0	0	0	0	0	0	0	0	0.48	0	<b>0.48</b>
Steel Pkn	15 01 04	0	0	0	0	0	0	0	0	0	0	1.1	7.08	<b>8.18</b>
<b>Total</b>		<b>1861.96</b>	<b>1448.74</b>	<b>1749.6</b>	<b>1699</b>	<b>1179.6</b>	<b>1232</b>	<b>1346.6</b>	<b>1111.7</b>	<b>1293.8</b>	<b>1085.9</b>	<b>1047.39</b>	<b>1196.01</b>	<b>16251.4</b>

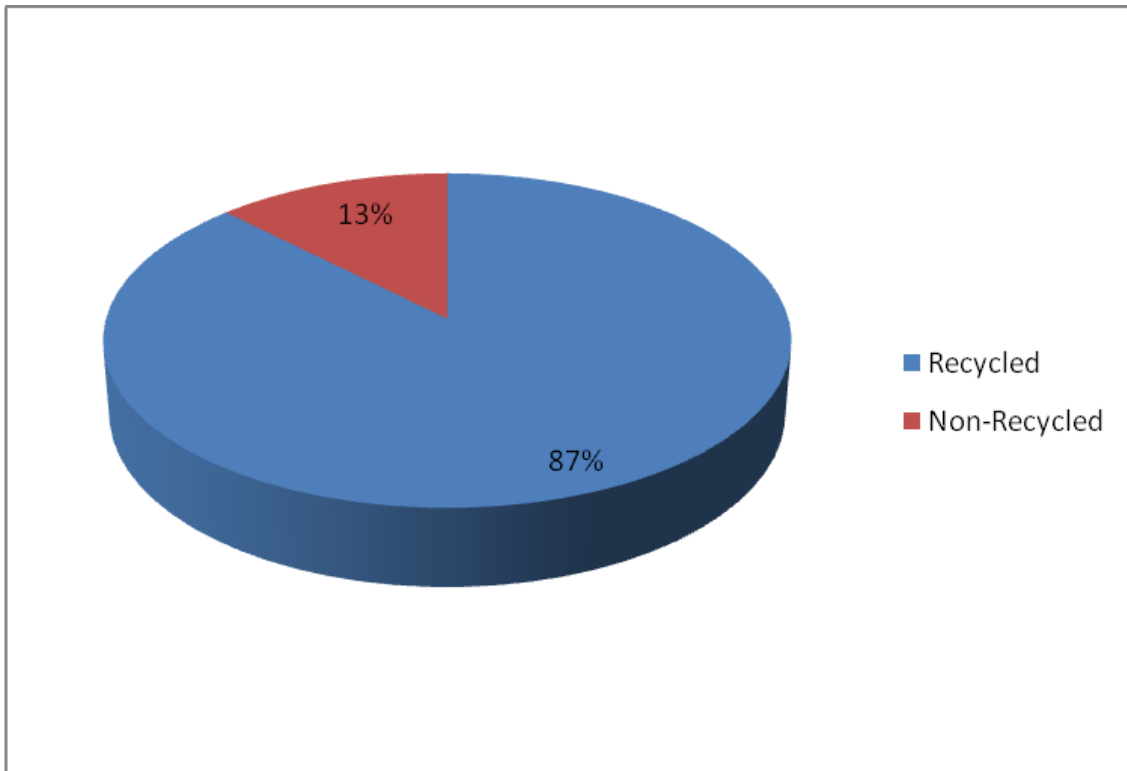
**Figure 19: Waste out of the Cavan Waste Disposal facility**



### Recycling Rates

The Following figure shows the Recycling trend for the Cavan Waste Disposal Facility from January to December 2009. As shown below, of all waste received on site 87% of waste was recycled with only 13% being sent to landfill.

**Figure 20: Recycling trend**





**5.4 Unacceptable Waste List**

Cavan Waste Disposal does not accept the following waste types into the facility.

<u>WASTE TYPE</u>	<u>DESCRIPTION</u>
Waste Oil	Oil liquids
Oil Filters	Vehicle/Machine types
Oil/Sand mixtures and/or mixtures or Oil and other materials	Oil spill clean ups and soak ups
Petroleum wastes	Petrol liquids and sludges
Chemical Wastes	Drum chemicals
Paint, Inks and Thinners	Solvent based liquids
Infectious Healthcare Wastes	Hospital and Industry waste
Lead Acid Batteries	Vehicle and Machine types
Fluorescent Light Bulbs	Tube and Bulb types
Odorous Waste	Odorous and putricible waste
Gas bottles/Cylinders/Kegs	Empty/full metal types
CFC gases from refrigerators	Waste fridges/freezers
Large volumes of liquids	Volumes greater than 200 litres
Asbestos	Sheeting, Cement, Packaging
Toner	Printer Cartilages
Municipal Waste	Food and Yard Waste
WEEE	Televisions and Microwaves

## 6.0 Register of Waste Contractors and offsite Waste Facilities approved by the EPA

Facility Name and Address	License/Permit no.	EWC Code	Description	Letter Ref Number (EPA)
African Clothing Exports Ltd.,145 Fenaghy Rd.,Cullybackey, Co. Antrim, N. Ireland	WMEX 04/12	20 01 10	Clothes	
	WCP/MH/2006/84B			
Enva Oil Laboratories Limited, Clonminam Industrial Estate, Portlaoise, Count Laois	WL184-01	17 05 04	Soil & Stones	WO207-01 (07)Gen09JG
	WCP/MH/2001/107B	15 02 02	Paint Waste	
Cavan County Council Treatment Works, Keaduage Lane, Cavan	Treatment works	20 03 99	Waste Water	WO207-01 (05)gen1JG
Clearpoint Recycling Ltd, Ballylynch, Carrick on Suir, Co. Tipperary	WM/WP/12/05	15 01 02	Plastic Packaging	WO207-01 (07) Gen10JG
Clearway Disposal Ltd. 41 Dobbin Road, Portadown, Co. Armagh	LN/09/29/A	20 01 40	Metals	WO207-01 (06) Gen06JG
	WCP/MH/2006/68B	15 01 04	AL Packaging	
		20 01 40	Aluminium	
Corranue Landfill, Cootehill Road, Co. Cavan	W077-02	20 03 01	Municipal	WO207-01 (05)gen1JG
		19 12 12	Mixed C&D	
		20 03 99	NR waste	
		17 01 07	C&D Waste	
		20 01 38	Woodchips	
Crum Rubber Ireland Ltd. Mooretown, Dromiskin, Dundalk, Co. Louth	WP2007-01	16 01 03	Tyres	WO207-01 (05)gen1JG
EnviroGrind Ltd. Pettigo, Co. Donegal	ENV/143/WP04-08	20 02 01	Green Waste	WO207-01 (07) Gen09JG
		17 08 02	Gypsum	
D.M Waste, Labadish, Letterkenny, Co. Donegal	ENV 143 11-1207	20 01 01	Dry Recyclables	W0207-

				1(08)Gen12JG
Enrich Environmental Ltd, Larch Hill Stud, Kilcock, Co. Kildare		02 01 03	Plant tissue Waste	W0207-1(08)Gen13JG
		02 01 07	Waste from Forestry	
		20 02 01	Biodegradable Waste	
		20 02 02	Soil	
	WFP/MH/08/0001/01	17 02 01	Wood	W0207-01(09)AP05JG.doc
		15 02 01	Wood	
Finsa, Scarrif, Co. Clare	P022-01	20 01 38	Wood chips	WO207-01(05)gen1JG
Glassdon Recycling, 52 Creagh Rd, Toomebridge, Co. Antrim	ROC 84	15 01 07	Green, Clear and Brown Glass	WO207-01(07) Gen 08JG
	LN/06/08			
Hammond Lane Metal Co., Garycastle, Athlone, Co. Westmeath.	WP173-2008	20 01 40	Metals	Approval sought 06/07/06
JVC Ltd, Unit 27B Clonshaugh Industrial Estate, Dublin 17	WP/98086	15 01 02	Plastic Packaging	WO207-01(05)gen1JG
		15 01 01	Paper & Card	
		20 01 01	Dry Recyclables	
Longford County Council Treatment Works		20 03 99	Wastewater	
Monaghan County Council Treatment Works		20 03 99	Waste Water	
Monaghan County Council, Scotch Corner Landfill, Letterbane, Annyalla, Castleblaney,	W020-01	20 03 01	Municipal/ Nr Waste	WO207-01(05)gen1JG
Co. Monaghan		20 03 99	NR waste	
		19 12 12	Mixed C&D waste	
Mc Elvaney's Waste and Recycling, Corcaghan, Monaghan, Co. Monaghan	WO20-2	20 01 01	Dry Recyclables	WO207-1(07)Gen11JG

	WCP/MH/2005/89B			
Oxigen Environmental Ltd., Merrywell Industrial Estate, Ballymount, Dublin 22	W0208-01	15 01 02	Plastic Packaging	WO207-01 (07) Gen09JG
		20 01 01	Dry Recyclables	
		15 01 01	Cardboard	
		20 03 01	Municipal Waste	
		20 01 01	Newspapers	
		15 01 07	Glass	
		15 01 04	Aluminium Packaging	
		15 01 04	Steel Packaging	
Oxigen Environmental Ltd., Coes Rd, Dundalk, Co. Louth	W0144-01	15 01 01	Cardboard	WO207-1(08)Gen13JG
		20 03 01	Dry Recyclables	
Oxigen Environmental Ltd., Robinhood Industrial Estate, Robinhood Road, Ballymount, Dublin 22	W0152-03	15 01 02	Plastic	WO207-01 (05)gen1JG
P.Carney Ltd., Crossaliel, Kells, Co. Meath.	P0402-2	20 01 04	Beer Kegs	WO207-01 (05)gen1JG
		20 01 40	Copper wire	
Retech Processing Ltd. IDA estate, Cootehill, Co. Cavan	WP07-04	15 01 02	Plastic Packaging	WO207-01 (05)gen1JG
				WO207-01(07)Gen11JG
ReGen Waste Ltd. Shephards Drive, Carnbane, Industrial Estate, Newry, Co. Down	LN/04/08/A	15 01 01	Cardboard	WO207-1(08)Gen13JG
		20 03 01	Dry Recyclables	
Rilta Environmental Ltd. Greenogue Business Park, Rathcoole, Dublin (Sita Environmental)	W0192-02	17 05 03	Contaminated soil	WO207-01 (06)Gen05JG
Returnbatt Ltd. Unit A Oldmill Industrial Estate, Oldmilltown, Kill, Co. Kildare	W0105-01	16 06 01	Batteries	

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The Recycling Village. Unit 4 Tenure Business Park, Manasterboice, Drogheda, Co. Louth.	WP2007/20	16 06 01	Batteries	W0207-1(08)Gen13JG
Smurfit Ireland Ltd. Ballymount Road, Walkinstown, Dublin 12	WPR021/3	15 01 01	Paper & Card	WO207-01(05)gen1JG
		15 01 01	Cardboard	
		20 01 01	Conf shredding	
		15 01 05	Tetra pak	
Textile Recycling Ltd, Glenabbey Complex, Belgard Rd, Tallaght, Dublin 24	WPR014/2	20 01 10	Clothes	
Treanor Metals (T-Met), 84 Armagh rd, Moy, Dungannon, Co. Armagh	WDL/13	20 01 40	Metals	WO207-01(05)gen1JG
	WCP/MH/2004/38B	20 01 40	Aluminium	
	NI 00216			
Farmers-Variou	N/A	20 01 38	Wood Chips	Approved
Farmers-Variou	N/A	17 01 07	Clean Masonry	Approved
Glassgo Recycling Ltd. Naas,Co. Kildare	WP247/2006	15 01 07 17 02 02 20 01 02 20 01 40	Glass Glass (non-pagn) Glass (non-pagn) Metallic pgn	W0207-01(09)AP06JG.doc
James W Corry and Sons Ltd.(Campsie and Thorndale Ltd) 77 Clooney rd, Campsie,Co. Derry	WDL 14	15 01 02 20 01 39	Plastic Plastic	W0207-01(09)AP07JG.doc
Ballydonagh landfill, Co. Westmeath	W028-03	20 01 03	Domestic/Com waste	W0207-01(10)AP09JG.doc
Gormley felix, Monery, Crosdooney, Co. Cavan	WP/07/15	20 01 40 15 01 04	Metals Aluminium/steel Pgn	
Derryclure Landfill, Tullamore, Co. Offaly	W029-02	20 03 01	Municipal Waste	
Knockharley Landfill, Knockharley,Navan Co.Meath	W0146-01	20 03 01	Municipal Waste	

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Kyletalesha Landfill, Clonsoughy, Kyleclonhobert, Co. Laois	W0026-02	20 03 01	Municipal Waste	
KTK Landfill Ltd., Brownstown and Carnalway, Kilcullen, Co. Kildare	W0081-03	17 05 04	Soil & Stones	
Whiteriver Landfill, Dunleer, Co. Louth	W0060-02	20 03 01	Mun/Com waste	
		19 12 09	Minerals (sand/stone)	
		19 12 12	Fine material	

## 7.0 ENVIRONMENTAL INCIDENTS

### 7.1. Incidents Summary

Condition 12.3 requires that the licensee shall submit a written record of environmental incidents to the agency. No limit for suspended solids is stated in the Waste Licence, however high levels of suspended solids were recorded from SW1 in October. A summary of incidents are presented in Table 13.

**Table 13: Summary of Environmental Incidents**

<b>Nature Of Incident</b>	<b>Date</b>	<b>Action Taken</b>
High level of Suspended solids in SW1	October 2009	In December 2009, Mc Breen Environmental emptied the silt trap and interceptor for disposal in Rilta Environmental Ltd.

## 8.0 ENVIRONMENTAL OBJECTIVES AND TARGETS.

### 8.1 Progress Report on the Achievement of 2008 Objectives and Targets

#### Objective 1

**Target 1.1:** Aim to initiate a brown bin system to all customers to increase further customer recycling rates.

The introduction of a brown bin system has not been implemented by Cavan Waste Disposal during 2009. It is hoped to introduce the 3 Bin-System by late 2010.

**Target 1.2:** Aim to provide a greater recycling service to all customers, particularly from commercial sources.

Distribution of Cavan Waste Disposal Ltd green/recycling bins continued to increase throughout 2009 with greens bins supplied to all new customers. Commercial recycling has increased with source segregation improving by customers.

**Target 1.3:** Aim to increase recycling rates with all of the customers through the promotion of recycling. Achieve annual recycling targets.

Recycling rates increased by 2% in 2009 (compared with 2008) with an over all of 87% of waste material accepted on site recycled. This is a continued improvement on an annual basis.

**Target 1.4:** Implement an auditing system for customers/suppliers associated with Cavan Waste Disposal

Cavan Waste Disposal have a varied customer base and are satisfied with waste acceptance from these customers. Customers to include households are given an unacceptable waste list, if unacceptable materials are found in the skip the customer is contacted and arrangements are made to ensure this material is not placed in skips in future. Audits may be completed when required as per the discretion of the facility manager.

**Target 1.5:** Carry out de-sludging of Oil Interceptor by an approved contractor and have all drains jet washed so as to ensure that the yard drainage system is operating successfully.

Desludging of the Oil Interceptor was completed by McBreen Environmental in December 2009.

**Objective 2**

**Target 2.1:** Review and update the EMS as is necessary.

Cavan Waste Disposal Ltd company policy specifies that the company's EMS is appropriately updated and changed as deemed necessary. It is proposed to amend the EMS in 2010.

**Objective 3**

**Target 3.1:** Update on-site and off-site training and awareness as required.

Charlie Galligan (Site Manager) to complete a Health and Safety Course in February 2010, he will be the Site H&S Manager and will be responsible for training of personnel and site safety.

**Target 3.2:** Provide induction training to all new staff in Cavan Waste Disposal

No new staff were employed by Cavan Waste Disposal in 2009. Records of training completed are kept in the training file on-site.

**Objective 4**

**Target 4.1:** Commence the process of attaining an ISO14001 in 2009

ISO 14001 was achieved by Oxigen Environmental for the Ballymount, Coles Road and Corranure Landfill Sites. Cavan Waste Disposal has not had the resources to complete this process during 2009 and will aim to implement ISO 14001 at a later date.



**Table 14: Objectives and Targets for 2010**

<b>Objective</b>	<b>Description</b>
<b>Objective 1</b> Target 1.1  Target 1.2  Target 1.3	<b>Continued compliance with Waste License W0207-1</b> Aim to initiate a brown bin system to all customers to increase further customer recycling rates. The aim is to implement the 3 Bin System by September 2010. Continue to maximize recycling services to all customers, particularly from commercial sources. Achieve annual recycling targets. Carry out de-sludging of Oil Interceptor by an approved contractor on an annual basis
<b>Objective 2</b> Target 2.1	<b>Continued compliance and updating of the EMS</b> Review and update the EMS as required.
<b>Objective 3</b> Target 3.1 Target 3.2	<b>Staff Training</b> Update on-site and off-site training and awareness as required Provide induction training to all new staff in Cavan Waste Disposal.

Cavan Waste Disposal continues to aim for increased recycling rates and thereby reducing waste to landfill. Recycling rates on site have increased by 2% in comparison to the previous year, however it is noted that the volume of material accepted onto the site has decreased by 7,526 tonne from 2008. The substantial reduction in materials accepted on the site is noted from May 2009, this is due mainly in the reduction of wood acceptance and the reduced volume of Builders Skip material received on the site, which continues to decline to the end of the year.

It is the responsibility of the compliance officer and site manager to work towards continual improvement as set in the objectives and targets for 2010. This schedule is ongoing and objectives /targets may be added as deemed necessary over the coming year.

## **9.0 TANK AND BUND TESTING**

Portable Bunds are maintained on site for the storage of hydraulic oil, engine oil, gear oil and waste oil. These bunds were tested onsite and are resistant to penetration by water. Bunds were all tested as per procedure in the site EMS on the 30<sup>th</sup> August 2006. The Diesel tank is contained in a concrete bund, this bund was tested in December 2005.

## **10.0 RESOURCE AND ENERGY CONSUMPTION SUMMARY**

Energy and resource consumption at the facility from 1<sup>st</sup> January to 31<sup>st</sup> December 2009 can be summarised as water consumption, electricity consumption and diesel usage on the site.

There is a noticeable decline in all energy consumption used on the site in comparison to the previous year and this is reflective of the reduction in the incoming waste and reduced activities on the site. This is particularly evident in the last 6 months of the year.

### **10.1 Water Consumption**

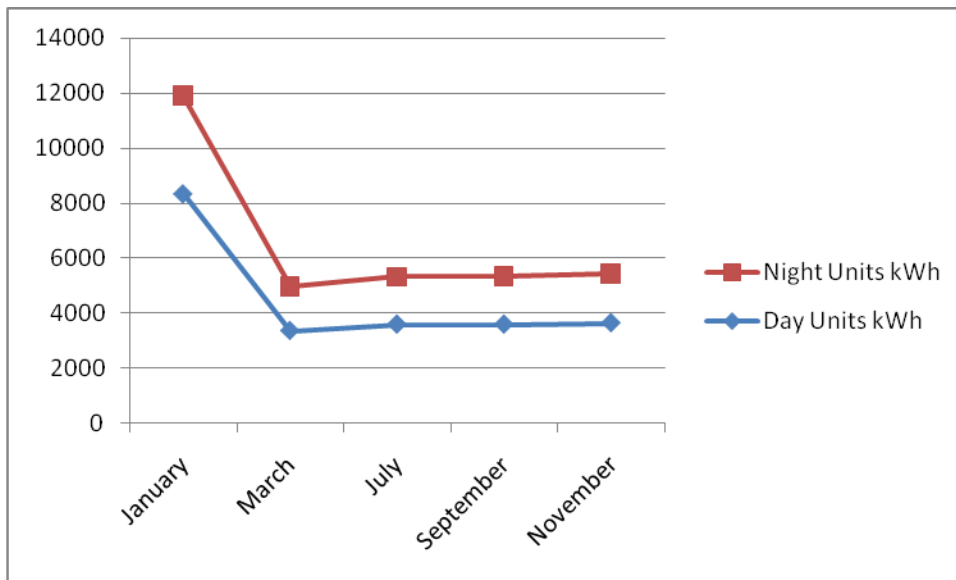
Water consumption for 2009 was 597,000 Litres.

## 10.2 Electricity Consumption

**Table 15: Summary Table of Electricity Usage during the reporting period**

Month	Day Units kWh	Night Units kWh
January	8350	3550
March	3358	1603
July	3590	1721
September	3590	1753
November	3644	1791
<b>Total</b>	<b>22,532</b>	<b>10,418</b>

**Figure 21: Graph showing Electricity usages for reporting period**



As shown in Figure 21, both day and night time units show a seasonal pattern throughout the year, with general electricity consumption far lower in summer months compared to winter months. This change in consumption is due to a greater need for electricity in the short days of winter and late autumn. Conversely, the electricity demand in summer is far less than in winter as most operational work is carried out during periods of natural light.

The variation in night time consumption is less than that of daytime as no operational take place at night.

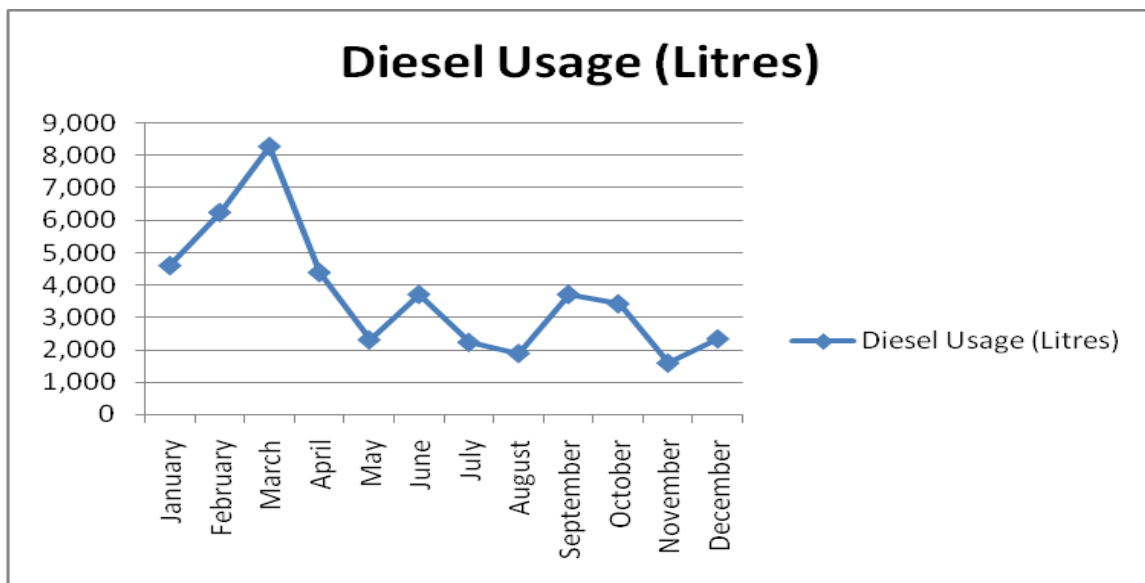
## 10.2 Diesel Consumption

**Table 16: Summary Table of Diesel Usage during the reporting period**

Month	Diesel Usage (Litres)
January	4,611
February	6,252
March	8,291
April	4,399
May	2,317
June	3,721
July	2,240
August	1,897
September	3,720
October	3,431
November	1,600
December	2,348
<b>Total-2009</b>	<b>44,827</b>

**Figure 22: Graph showing diesel usages for reporting period**

### 2009 Diesel Usage



## 11.0 WASTE WATER REMOVED FROM THE FACILITY

Waste Water is removed from the facility once the storage tank is full. A record is kept onsite of each consignment of wastewater removed from the facility. PC Drain Cleaning transports the waste water to Monaghan Wastewater Treatment Works, Co. Monaghan.

The tonnages removed from Cavan Waste Disposal to Monaghan Wastewater Treatment Works are shown in Table 17.

**Table 17: Tonnages removed from the Cavan Waste Disposal Facility**

<b>Date of transport</b>	<b>Tonnage</b>	<b>Destination</b>
19-Jan-09 17:02	4.52	Monaghan Wastewater Treatment Plant
20-Jan-09 13:02	4.76	Monaghan Wastewater Treatment Plant
12-Feb-09 17:26	4.16	Monaghan Wastewater Treatment Plant
13-Feb-09 15:50	5.70	Monaghan Wastewater Treatment Plant
07-Apr-09 13:08	4.72	Monaghan Wastewater Treatment Plant
14-Apr-09 14:03	4.68	Monaghan Wastewater Treatment Plant
16-Apr-09 11:26	4.98	Monaghan Wastewater Treatment Plant
24-Apr-09 15:52	5.02	Monaghan Wastewater Treatment Plant
27-Apr-09 14:23	3.76	Monaghan Wastewater Treatment Plant
05-May-09 12:34	5.36	Monaghan Wastewater Treatment Plant
18-May-09 14:46	4.84	Monaghan Wastewater Treatment Plant
25-May-09 12:54	5.04	Monaghan Wastewater Treatment Plant
24-Jun-09 14:01	4.36	Monaghan Wastewater Treatment Plant
15-Jul-09 15:16	5.38	Monaghan Wastewater Treatment Plant
17-Aug-09 10:56	5.36	Monaghan Wastewater Treatment Plant
17-Aug-09 12:30	5.56	Monaghan Wastewater Treatment Plant
01-Sep-09 11:10	5.56	Monaghan Wastewater Treatment Plant
20-Oct-09 16:56	5.14	Monaghan Wastewater Treatment Plant
09-Nov-09 12:33	5.32	Monaghan Wastewater Treatment Plant
09-Nov-09 15:36	5.14	Monaghan Wastewater Treatment Plant
07-Dec-09 12:57	4.16	Monaghan Wastewater Treatment Plant
07-Dec-09 16:16	4.46	Monaghan Wastewater Treatment Plant
<b>Total</b>	<b>107.98</b>	

## **12.0 NUISANCE CONTROL**

A pest prevention service is provided by Rentokil Pest Control Company. Sixteen bait locations are positioned onsite.

During 2009 a total of seven site visits were made by Rentokil. A Pest Prevention Report is completed and a record of each visit is maintained on site.

Cavan Waste Disposal has no fly infestations or complaints to-date.

Daily weather records for 2009 are maintained on the site from the weather station located at Corranure Landfill.

## **13.0 FINANCIAL PROVISIONS**

Cavan Waste Disposal Ltd. shall pay to the agency an annual contribution of 5,438euro or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the agency, towards the cost of monitoring the activity, as the Agency considers necessary for the performance of its functions under the Waste Management Acts, 1996 to 2003.

## 14.0 SITE MANAGEMENT STRUCTURE

The management structure at the facility is detailed below:

**Table 18: Management Structure**

Name	Job Title	Responsibilities	Qualifications	Courses attended
Charlie Galligan	Facility Manager	Responsible for the day to day site operations, waste acceptance and dispatch and ensuring activities are carried on effectively and in a manner so as to minimise environmental nuisance.	14 years experience in the Waste and Recycling Industry	FAS Waste Management Course Manual Handling/Fire Training
Claire Keogh	Compliance Officer (January-March)	Compliance with EPA Licence Conditions. Liaising with EPA and Local Authority. Overseeing Environmental Monitoring and Operation of the Weighbridge	BSc in Environmental Health, M.Sc Applied (Environmental) Science	Safe Pass/Fire Training
Brian Abbott	Compliance Officer (March-May)		BSc in Environmental Health,	Safe Pass/Fire Training
Joan Harrington	Compliance Officer (June-Dec)		BSc (Hons) Environmental Science	FAS Waste Management Course Manual Handling/Fire Training
Aine Brady	Assistant to Facility Manager	Responsible for day to day operation of the site	8 years experience in the Waste Industry	Manual Handling/Fire Training
John Tierney (Jan- April)	Weighbridge Operator	Data Capture in and out. Reporting of data	22 years experience as Weighbridge Operator	Manual Handling/Fire Training
Igor Chakin	Site Supervisor	Responsible for yard operations	8 years experience in waste recycling and disposal	Manual Handling/Fire Training
6 x Staff	Site Operatives	Responsible for the segregation and recycling of waste on site		Manual Handling/Fire Training
10 x Skip Drivers (1 relief driver)	Lorry Driver	Collection /disposal of waste, Lorry maintenance		Manual Handling/Fire Training/Safe Pass

## **15.0 PUBLIC INFORMATION PROGRAMME**

A program for public information is in place at the facility. During the reporting period there were no requests from the public to inspect any of the records and files listed in the submission.

The list of documents available for inspection is as follows:

### **Communications Folder**

- Environmental Monitoring Results
- Complaints Register
- List of Unacceptable Waste accepted at the site
- Pest/Vermin Control Records
- Current Waste License
- CWD Environmental Policy

Members of the public who wish to inspect these files may do so Monday to Friday between the times 10am-12pm and 2pm to 4pm or by making an appointment either with the Facility Manager or Compliance Officer at the telephone number posted on the main facility entrance sign erected in accordance with Condition 3.3. The names of the appropriate personnel are as follows:

Charlie Galligan  
Facility Manager

Joan Harrington  
Compliance Officer