# 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, and the materials for recycling are transported to at another waste licensed facility. Non-Recyclable waste material 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** 

Waste Description	<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 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. Wood is stockpiled and 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	Municipal waste was accepted on site as agreed by the										
	EPA. The waste material is tipped in the processing										
	shed, where it was loaded into open top ejector trailers										
	and brought to a licensed facility/landfill, namely Scotch										
	Corner Landfill, Co. Monaghan, Whiteriver landfill, Co. Louth Ballydonagh Landfill Co. Westmooth										
	Louth, Ballydonagh Landfill, Co. Westmeath,										
	Derrryclure Landfill, Co.Tullamore, Drehid Landfill,										
	Co. Kildare and Rampier landfill, Co. Wicklow										
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.										
G	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.										

## 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 Oxigen Demand, Chemical Oxigen 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 May 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 2010 is given in Table 2 and illustrated in Figures 1 to 7.

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

Month	pН	COD	BOD	Ammonia	Mineral	Suspended	Sulphate
	pH Units	П	/T		Oil	Solids	
	Units	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L
May	6.27	540	296	6.1	< 0.1	220	37.9
July	6.97	760	123	10.9	<0.1	480	17.9

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

Figure 1: pH

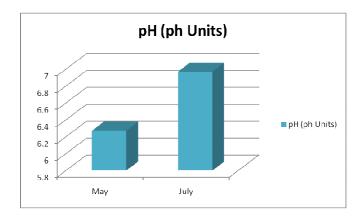


Figure 2: BOD

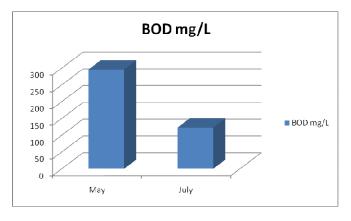


Figure 3: COD

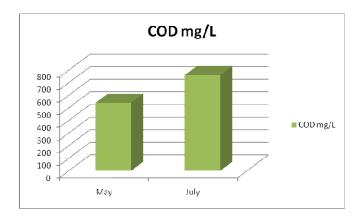


Figure 4: Suspended Solids

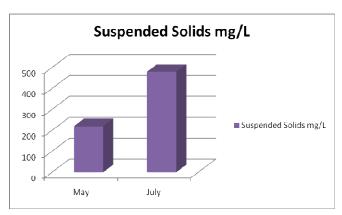


Figure 5: Ammonia

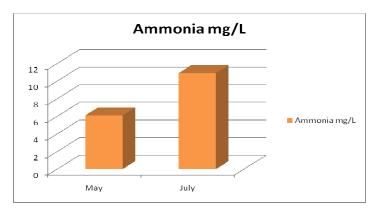
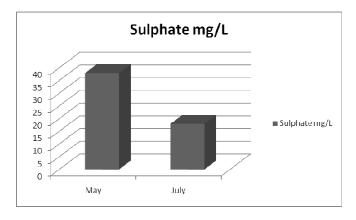


Figure 6: Mineral Oil

(Both Samples were less than 0.1mg/l)

Figure 7: Sulphate



# 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  $25^{th}$  of February, the  $13^{th}$  of May, the  $22^{nd}$  of July and the  $22^{nd}$  of November 2010.

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	
Feb	6.71	75	1.9	801	12.8	< 0.01	46	15.9	
May	7.35	6000	6.07	649	157.2	< 0.01	3830	61.8	
July	6.89	66	0.28	498	14.4	< 0.01	17	104.3	
Nov	7.16	400	2.46	577	46.2	< 0.01	606	29.9	

**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	
Feb	6.96	23	1.1	437	14.2	< 0.01	34	18.2	
May	7.23	850	2.06	679	121.8	< 0.01	4112	55.6	
July	7.27	140	0.6	489	8.2	< 0.01	71	52.9	
Nov	7.10	200	1.57	454	36.2	< 0.01	155	78.3	

**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	
Feb	6.81	13	0.25	490	25.2	< 0.01	19	32.2	
May	7.3	22	0.35	1011	17.1	< 0.01	3	18.4	
July	7.1	52	0.33	805	23.6	< 0.01	15	210.8	
Nov	7.08	34	0.39	339	12.4	< 0.01	47	80.8	

Table 6: SW-4

SW4	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	
Feb	6.83	24	0.86	496	19.8	< 0.01	9	44.2	
May	6.9	32	0.01	890	25.1	< 0.01	36	18.9	
July	7.3	56	0.19	765	54.2	< 0.01	15	22.9	
Nov	7.06	23	0.05	474	15.6	< 0.01	61	36.2	

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 < 0.01 mg/L.

Figure 8: pH (pH units)

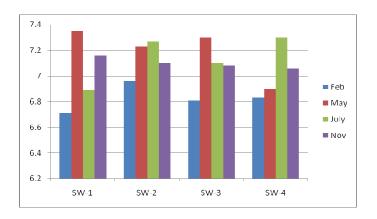


Figure 9: Ammonia (mg/L)

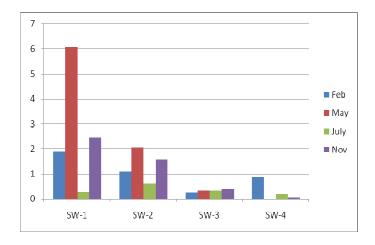


Figure 10: COD (mg/L)

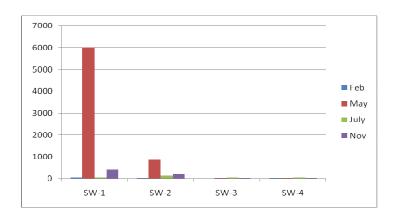


Figure 11: Conductivity (uScm<sup>-1</sup>)

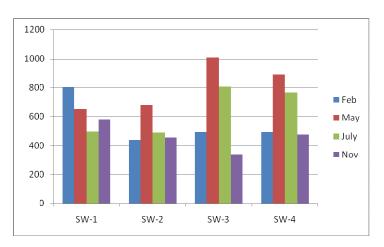


Figure 12: Chloride (mg/L)

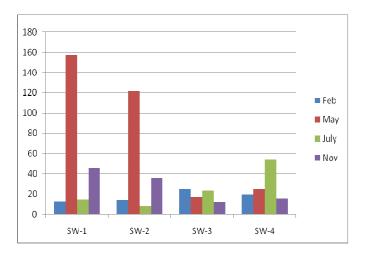


Figure 13: Sulphate (mg/L)

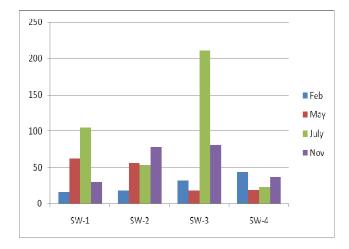
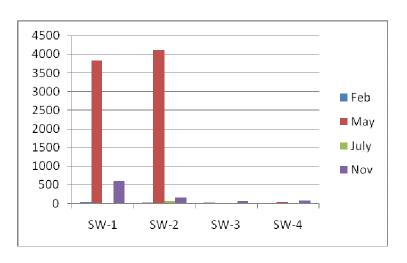


Figure 14: Suspended Solids (mg/L)



#### 3.2 **Noise Monitoring**

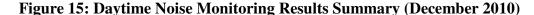
 $L_{A90}$ 

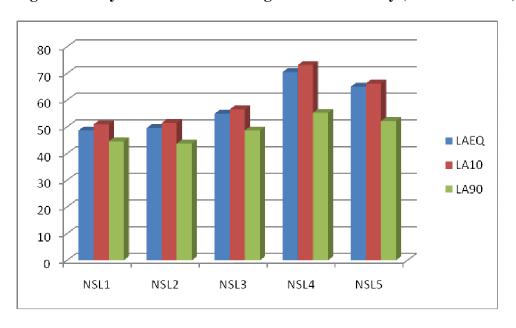
As required in Schedule C.1 of Waste License W0207-01, noise monitoring is required on an annual basis at 5 locations on the site. The noise monitoring survey was undertaken on the 16<sup>th</sup> of December 2010.

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.

December	NSL1	NSL2	NSL3	NSL4	NSL5
L <sub>AEQ</sub>	48.6	49.5	54.9	70.5	65
$L_{A10}$	50.9	51.4	56.5	73.1	66.2
$L_{A90}$	44.5	43.7	48.6	55.2	52.1

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





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 1 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**

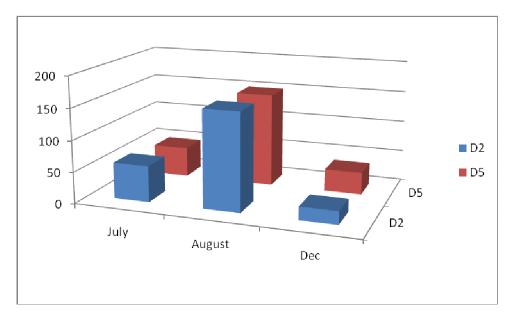
Three dust monitoring surveys were carried out during 2010, July, August and December at two locations D2 and D5, in compliance with Schedule D.2 of Waste License W0207-01, to determine the impact of site operations on the surrounding environment.

The locations of the dust gauges are shown on the attached monitoring location map. Results of monitoring are presented in Table 8 and Figure 16.

**Table 8: Dust Monitoring Results** 

ELV(mg/m<sup>2</sup>/day) Location July August Dec 155.6 **D2** 57.7 21 350 **D5** 48.3 150 35.6 350

**Dust Deposition Rates (mg/m²/day)** Figure 16:



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 2010.

# 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 2010** 

Development	Date
Installation of power washer	December
Installation of onsite Diesel tank	December
Upgrade of roadway into site	October

#### 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 28,994 tonnes which is 4,004 tonnes above the limit of 24,990 tonnes per annum set in Waste License W0207-01.

Cavan Waste Disposal was issued with a non Compliance as per Condition 1.1 and Schedule A of the waste licence in December 2010.

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

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

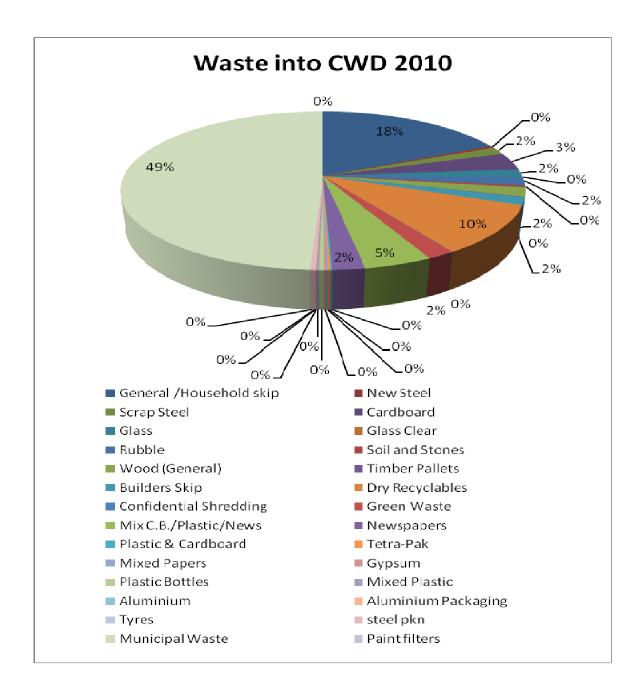
Waste Type	Max(Tonnes per annum) as per Waste Licence W0207-01	Tonnes accepted into the facility 20010
Total	24,990	28,994

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 Figure 17.

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	20 03 01/20 03	-			-					-				
skip	07	205.78	416.01	551	491.3	463.66	445.36	495.24	462.7	461.22	474.94	483.11	287.08	5237.4
New Steel	20 01 40	12.16	8.58	11.44	4.68	11.64	5.74	2.76	12.16	22.8	9.76	13.7	14.26	129.68
Scrap Steel	20 01 40	30.34	34.94	40.48	42.44	42.62	46.24	41.04	40.04	45.22	35.48	33.82	16.66	449.32
Cardboard	15 01 01	83.32	100.24	95.44	80.58	101.98	72.06	84.66	77.98	93.62	58.34	74.84	86.88	1009.94
Glass	15 01 07	35.74	31	40.18	42.26	37.02	44.9	38.22	57.46	39.6	29.08	30.72	40.38	466.56
Glass Clear	15 01 07	0	0.64	0	0	0	0	0	0	0	0	0.86	0	1.5
Rubble	17 01 07	7.44	20.3	18.7	44.56	31.72	69.22	69.38	95.46	90.47	30.6	31.28	4.8	513.93
Soil and Stones	17 05 04	0	0	7.32	10.6	44.14	5.64	28	3.88	6.76	0	9.02	0	115.36
Wood (General)	20 01 38	36.02	43.78	48.16	60.62	38.08	60.06	63.76	43.18	47.86	40.28	30.64	36.26	548.7
Timber Pallets	15 01 03	0.58	0	0	4.64	5.54	3.44	0	1.54	1.56	0.76	7.7	0	25.76
Builders Skip	17 09 04	13.1	11.26	21.6	11.8	17.18	32.98	42.62	133.02	42.88	35.94	46.08	31.7	440.16
Dry Recyclables	20 03 01	288.55	187.94	261.94	226.3	242.58	247	226.96	238.48	238.82	255.14	216.6	247.36	2877.67
Confidential Shredding	20 01 01	0.18	0.18	0	0.98	0.36	5.16	3.84	0.1	1.24	0.9	0	0	12.94
Green Waste	20 02 01	8.3	10.1	45.9	54.18	47.58	61.86	74.46	101.06	59.44	47.04	27.96	3	540.88
Mix C.B./Plastic/News	15 01 06	89.06	96.12	100.84	115.88	97.64	117.58	126.9	118.84	127.32	111.04	119.72	103.08	1324.02
Newspapers	20 01 01	42.2	47.34	50.3	66.12	37.4	58.42	62.68	72.32	45.46	52.7	47.08	43.76	625.78
Plastic & Cardboard	15 01 06	4.3	0	0	5.68	5.28	0	5.24	0	8.04	0	0	6.48	35.02
Tetra-Pak	15 01 05	4.12	3.3	4.42	3.06	2.92	3.3	3.12	2.6	4.62	2.36	4.5	2	40.32
Mixed Papers	20 01 01	8.16	15.76	13.72	0	0	0	0	0	0	0	0	0	37.64
Gypsum	17 08 02	3.92	4.24	5.06	4.26	2.06	2.08	3.78	2.04	1.34	3.38	1.28	2.12	35.56
Plastic Bottles	20 01 39	9.54	6.5	10.1	10.46	9.08	10.62	10.48	10.04	9.94	9.52	6.8	9.2	112.28
Mixed Plastic	15 01 02	2.82	10.6	0.94	8.8	0.62	0.68	0.44	14.04	1.36	2.96	1.54	9.3	54.1
Aluminium	20 01 40	0	0	0	0	0	0	0	0	0	2.78	0	0	2.78
Aluminium Packaging	15 01 04	3.58	1.58	1.7	1.76	2.06	1.98	1.92	2.44	2.38	1.7	1.44	2.91	25.45
Tyres	16 01 03	0	0	0	0	0	0	2.34	0	0	0	0	0	2.34
hard plastics	20 01 39	0	0	0	0	0	0	0	0	0	0	0	0	0
Copper wire	20 01 40	0	0	0	0	0	0	0	0	0	0	0	0	0
steel pkn	15 01 04	8.32	7.66	8.28	5.76	6.98	6.95	8.16	5.64	9.94	4.34	7.92	4.4	84.35
Municipal Waste	20 03 01	295.4	650.92	994.22	1521.59	1252.38	1433.96	1361.14	1430.48	1401.84	1224.88	1432.23	1244.32	14243.4
Paint filters(masonite)	08 01 18	0	0.48	0	0	0	0.82	0	0	0	0	0	0	1.3
TOTALS		1192.93	1709.47	2331.74	2818.31	2500.52	2736.05	2757.14	2925.5	2763.73	2433.92	2628.84	2195.95	28994.1

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 was disposed of at Corranure landfill for January and the site closed in February, materials were then sent to Scotch Corner Landfill, Co. Monaghan, Whiteriver Landfill, Co. Louth, Derryclure Landfill, Co. Offaly, Ballydonagh landfill, Co. Westmeath, Drehid Landfill, Co. Kildare, and Rampier Landfill, Co. Wicklow. Some waste was sent for processing to Oxigen Environmental, Robinhood and Oxigen Environmental, Co. Dundalk.

Cardboard was sent to Oxigen Environmental, Ballymount, Paper, Confidential Shredding, tetra pac and plastic bottles were also sent to Oxigen Environmental, Ballymount.

Wood received onsite is stockpiled and sent to Enrich Environmental and Panda Waste Services, both in Co. Meath.

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

C&D material went 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 Oxigen Environmental, Ballymount or Glassco Recycling in Co. Kildare.

Gypsum material was sent to Enviro Grind Ltd, Co. Donegal.

Green waste sent to Enrich Environmental, Co. Meath.

Plastic packaging is sent mainly to Retech Processing, Cootehill, Co. Cavan and some to Thorndale Environmental Recycling, Co. Derry.

Batteries recovered on site were sent to The Recycling Village, Co. Louth, Tyres to Crumb Rubber, Co. Dublin.

Interceptor waste was sent to Rilta Environmental (Sita), Co. Dublin

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 Figure 18.

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

Table 12: Monu	ny waste Qu	ianunes i	emoveu	Hom Ca	vali vva	isie IIa	lister a	nu Kecy	yening Fa	actifity (IVI	enic 10	illies)	ı	
Waste Type	EWC Codes	January	February	March	April	May	June	July	August	September	October	November	December	Total
New Steel	20 01 40	13.28	9.88	9.44	10.18	12.2	0	0	15.84	13.74	9.14	9.72	13.32	116.74
Scrap Steel	20 01 40	21.9	49.18	90.64	65.44	54.86	52.02	77.76	54.08	85.72	56.04	58.1	34.77	700.51
Cardboard	15 01 01	119.1	140.34	119.52	103.48	124.06	107.34	105.2	88.4	126.48	79.94	109.02	114.12	1337
Glass Clear	15 01 07	11.62	13.28	28.34	38	0	26.7	40.24	18.56	27.14	25.04	0	31.18	260.1
Glass Brown	15 01 07	0	14.08	0	0	16.28	18.56	0	18.88	0	14.14	0	0	81.94
Glass Green	15 01 07	16.12	0	16.16	0	16.38	21.64	0	16.6	11.68	0	15.7	11.14	125.42
Plastic Packaging/ Mxd Plastic	15 01 02	6.22	10.42	3.06	6.74	3.48	3.32	6.72	13.28	6.78	17.82	4.56	4.94	87.34
Hard Plastic	20 01 39	0	1.8	1.38	3.24	0	1.56	6.66	0	0	1.98	5.86	0	22.48
Rubble	17 01 07	30.8	20.8	29.7	20.7	42.64	43.4	103.84	116.5	104.51	31.64	0	13.66	558.19
C& D Waste	170904	64.22	107.38	216.38	214.2	287.1	232.62	322.54	347.58	280.5	252.15	280.82	166.86	2772.35
Wood	20 01 38/17 02 01	41.52	50.18	76.38	84.06	70.93	56.68	94.48	49.32	64.28	43.7	64.82	43.76	740.11
Dry Recyclables	20 01 01	351.19	322.52	394.28	378.52	341.36	400.14	398.62	407.7	379.56	382.1	350.76	356.8	4463.55
Green Waste	20 02 01	9.36	10.46	48	47.2	39.84	54.92	70.64	99.64	35.06	62.58	30.58	0	508.28
Tetra-Pak	15 01 05	6.86	0	6.74	0	3.78	4.02	0	4.54	0	5.68	4.28	0	35.9
Aluminium Packaging	15 01 04	3.7	2.72	1.42	2.3	3.14	2.24	2	1.72	2.84	3	0	3.08	28.16
Tyres	16 01 03	0	0	0	0	4.26	0	0	0	0	1.88	0	0	6.14
Gypsum	17 08 02	0	13.72	3.88	8.02	0	0	6.2	0	0	0	0	0	31.82
Plastic Bottles	20 01 39	9.64	5.38	10.04	8.22	9.12	12.18	9.96	8.8	9.9	10.36	5.9	28.42	127.92
Municipal Waste	20 03 01	450.44	933.05	1330.89	1794.98	1447.93	1630.2	1616.92	1558.22	1678.04	1451	1690.04	1420.69	17002.4
Waste Water	20 03 99	8.24	0	9.84	9.38	0	3.96	5.38	10.12	15.04	2.98	4.72	0	69.66
Coper wire	20 01 40	0	0	0	0	0	0	0	0	0	1.28	0	0	1.28
Aluminium	20 0140	0	0	0	0	0	0.9	0	0	0	1.52	0	0	2.42
Soil & stones	17 05 04	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas cylinders	16 05 04	0	0	0	0	0	0	0	0	0	0	0	0	0
batteries	16 06 01	0	0	0	0	0	1.28	0	0	0	0	0	0	1.28
Copper	17 04 01	0	0	0	0	0	0	0	0	0	0	0	0	0
Beer kegs	20 01 04	0	0	0	0	0	0	0	0	0	1.14	0	0	1.14
Interceptor waste		0	0	0	0	0	0	0	7.9	0	0	10.02	0	17.92
steel pkn	15 01 04	11.78	8.72	5.58	7.04	8.54	3.26	0	9.34	6.56	3.82	4.62	0	69.26
Total		1175.99	1713.91	2401.67	2801.7	2485.9	2676.9	2867.16	2847.02	2847.83	2458.93	2649.52	2242.74	29169.31

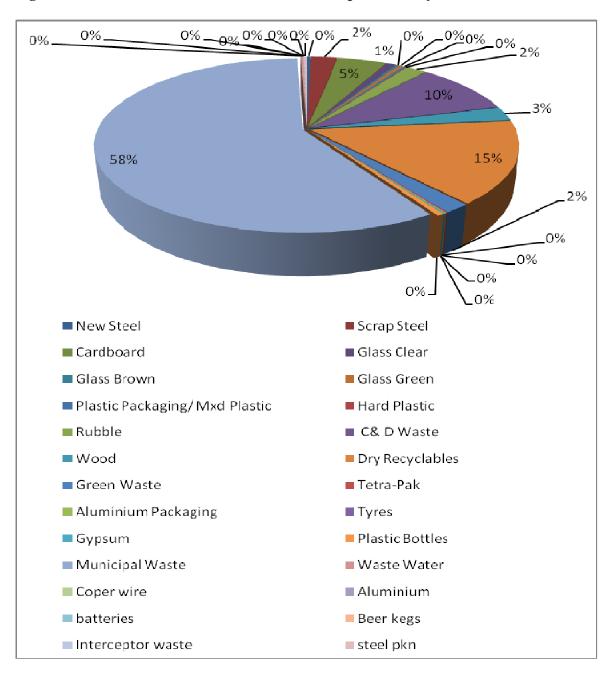


Figure 18: Waste out of the Cavan Waste Disposal facility

# **Recycling Rates**

The Following figure shows the Recycling trend for the Cavan Waste Disposal Facility from January to December 2010. As shown below, of all waste received on site 62% of waste was recycled with 38% being sent to landfill.

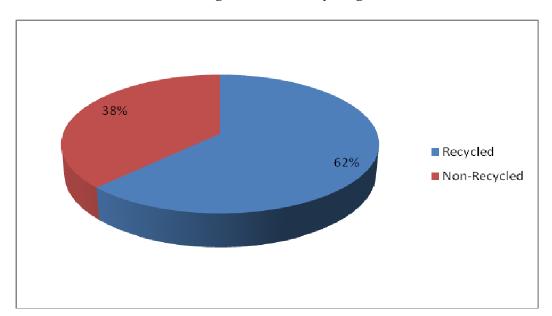


Figure 19: Recycling trend

# **5.4** Unacceptable Waste List

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

WASTE TYPE	<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
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
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	W0207- 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	W0207- 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	

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-Various	N/A	20 01 38	Wood Chips	Approved
Farmers-Various	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	

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 Minerals	
		19 12 09	(sand/stone)	
		19 12 12	Fine material	
Rampier Landfill,Baltinglass,Co.Wicklow	W006603	20 03 01	Municipal Waste	W0207-1(10)APJGdocx
O'Tooles Composting,Co.Carlow	WFP-CW-10-0003-01	20 02 01	Green Waste	
		20 01 08	Brown Bin	
Nurendale t/a Panda Waste Services, Navan Co.Meath	W0140-03	20 01 38	wood	
		17 01 02	bricks	
Nurendale t/a Panda Waste Services, Finglas, Co.Dublin	W0261-01	20 01 38	wood	
		17 01 02	bricks	
Rehab Glassco, Ballymount, Dublin 4	WPR-004	15 01 07	Glass	
John Gannon Concrete Ltd. Kilbeggan, Co.Westmeath	WFP-WM-2009- 0007-01	15 01 07	Glass	
		17 02 02	Glass	
Bord Na Mona PLC, Drehid Landfill, Carbury, Co. Kildare	W0213-03	20 03 01	Muncipal waste	
Irish Packaging Recycling Ltd.Ballymount Road, Dublin 12	W0263-01	15 01 01	Paper & Card	W0207- 1(11)AP13JG.docx
		20 01 01	Cardboard	

## 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.

On the 25<sup>th</sup> November 2010, Cavan Waste Disposal reported a Category 3 incident detailing tonnage acceptance, with the limit of 24,990 tonne for the year exceeded.

Measures were introduced to reduce the volume of incoming waste to the facility once it was evident Corranure landfill was not going to reopen, however Cavan Waste Disposal accepted 4,004 tonnes more than the licence limit of 24,990.

A strict quota system monitored weekly and reviewed quarterly, is now in place to ensure Cavan Waste Disposal do not accept more than the licence limit for the year. This has been in place from January 2011.

**Table 13:** Summary of Environmental Incidents

Nature Of Incident	Date	Action Taken
Facility Tonnage	November 2010	Monitoring and limit of waste intake

## 8.0 ENVIRONMENTAL OBJECTIVES AND TARGETS.

# 8.1 Progress Report on the Achievement of 2010 Objectives and Targets

# **Objective 1** Continued compliance with Waste License W0207-1

**Target 1.1:** Aim to initiate a brown bin system to all customers to increase further customer recycling rates and to introduce the 3 Bin-System by late 2010

A information letter was sent to all commercial customers in 2010 to avail of a brown bin collection service and information leaflets have been produced to increase customer awareness and help meet national recycling targets.

**Target 1.2:** Continue to maximize recycling services to all customers, particularly from commercial sources. Achieve annual recycling targets.

Distribution of Cavan Waste Disposal Ltd green/recycling bins continued to increase throughout 2010 with greens bins supplied to all new and existing customers. Commercial recycling has increased with increased source segregation, separate cardboard and glass collections have seen an increase in recycling rates, and Cavan Waste Disposal provide a free onsite waste audit service to minimise and best manage waste for commercial customers.

**Target 1.3:** Carry out de-sludging of Oil Interceptor by an approved contractor on an annual basis

De-sludging of the Site Interceptor was completed in both August and November 2010 by McBreen Environmental and the waste material sent to Rilta Environmental (SITA).

# **Objective 2** Continued compliance and updating of the EMS

**Target 2.1:** Review and update the EMS as required.

Cavan Waste Disposal Ltd company policy specifies that the company's EMS is appropriately updated and changed as deemed necessary. It is proposed to review and amend the EMS in 2011. This has been scheduled for May and to be approved/implemented by management prior to September 2011.

# **Objective 3** Staff Training

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

Charlie Galligan (Site Manager) has completed a Health and Safety Course in February 2010. He is the Site H&S Manager and will be responsible for training of personnel for 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 2010. Records of training completed are kept in the training file on-site.

# 8.2 Objectives and Targets for 2011

Cavan Waste Disposal aim to achieve environmental compliance at all times. The facility operates and is managed to ensure activities do not cause nuisance or environmental pollution.

It is the responsibility of the compliance officer and site manager to work towards continual improvement as set in the objectives and targets for 2011. This schedule is ongoing and objectives /targets may be added as deemed necessary over the coming year.

Table 14: Objectives and Targets for 2011

Objective	Description
Objective 1	Compliance with Waste Licence W0207-1
Target 1.1	Review of operations and processes on site and in waste collection to ensure energy and resource efficiency in all aspects of waste management.
Target 1.2	Upgrading of the site to include repair and maintenance of concrete areas in the facility, upgrade of roadway entrance and fencing and gates maintained to ensure adequate security. Re-paint gullies, drainage grids and manhole covers.
Target 1.3	To test the integrity and water tightness of the existing portable bunds and diesel tank on the site, replace if required and test any new tank and drum storage at the facility.
Target 1.4	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.
Objective 2	Compliance with National Recycling Targets
Target 2.1	Aim to initiate further roll out of brown bins to all commercial customers to help meet national recycling targets.
Target 2.2	Increase and achieve annual recycling targets. Provide increased

	waste collection options and services to all customers to encourage and promote increased recycling.
Objective 3	Continued compliance and updating of the EMS
Target 3.1	Review and update the EMS, scheduled for completion in 2011. This shall be implemented and maintained by all relevant personnel and updated as necessary.
Objective 4	Staff Awareness and Training
Target 4.1	Update and provide on-site and off-site training and awareness to all staff of Cavan Waste Disposal.
Target 4.2	Provide induction training to all new staff in Cavan Waste Disposal and maintain records at the facility.

#### 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 2010 can be summarised as water consumption, electricity consumption and diesel usage on the site.

There is a decline in energy consumption for electricity and diesel used at the facility in comparison to the previous year, with a slight increase in water consumption. This is reflective of the reduced operation activities on the site, with incoming waste bulked up and transported to another facility for processing.

## **10.1 Water Consumption**

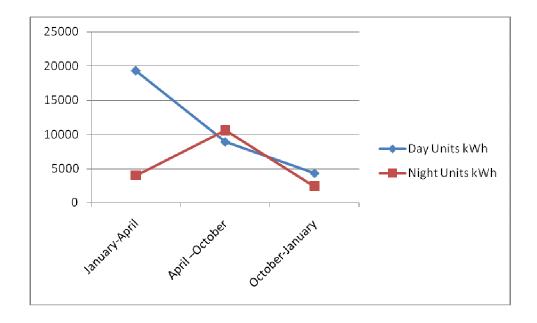
Water consumption for 2010 was 645,000 Litres; this is approximately 54 Litres per month.

# **10.2 Electricity Consumption**

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

	Day Units	Night Units
Month	kWh	kWh
January- April	19350	3950
April – October	8900	10600
October- January	4300	2400
Total	32,550	16,950

Figure 20: Graph showing Electricity usages for reporting period



As shown in Figure 20, 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. The day time consumption declines from the start to the end of year, showing the reduced electricity consumption over the year reflective of reduced site operation and activities and shorter working hours.

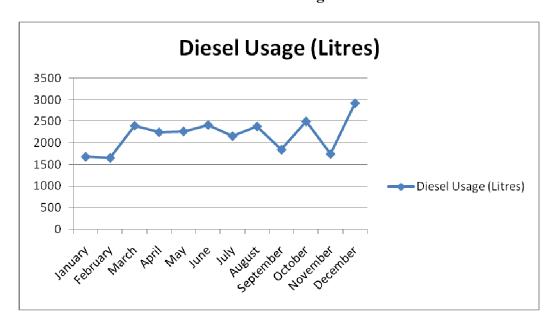
# **10.2 Diesel Consumption**

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

Month	Diesel Usage (Litres)
January	1684
February	1660
March	2400
April	2250
May	2270
June	2418
July	2160
August	2384
September	1847
October	2499
November	1749
December	2919
Total- 2010	26,240

Figure 21: Graph showing diesel usages for reporting period

2010 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

Date of transport	Tonnage	Destination
13/01/2010	4,280	Monaghan Wastewater Treatment Plant
13/01/2010	3,960	Monaghan Wastewater Treatment Plant
22/03/2010	4,820	Monaghan Wastewater Treatment Plant
22/03/2010	5,020	Monaghan Wastewater Treatment Plant
06/04/2010	4,540	Monaghan Wastewater Treatment Plant
06/04/2010	4,840	Monaghan Wastewater Treatment Plant
02/07/2010	5,380	Monaghan Wastewater Treatment Plant
22/06/2010	3,960	Monaghan Wastewater Treatment Plant
06/08/2010	10,120	Monaghan Wastewater Treatment Plant
02/09/2010	4,980	Monaghan Wastewater Treatment Plant
22/09/2010	4,820	Monaghan Wastewater Treatment Plant
22/09/2010	5,240	Monaghan Wastewater Treatment Plant
15/10/2010	2,980	Monaghan Wastewater Treatment Plant
09/11/2010	4,720	Monaghan Wastewater Treatment Plant
Total	69,660	

#### 12.0 NUISANCE CONTROL

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

During 2010 a total of seven site visits were made by Rentokil. A Pest Prevention Report is completed and a record of each visit is maintained at the facility.

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

Daily weather records for 2010 are maintained on the site, this information is from the weather station located at Corranure Landfill on the Cootehill Road, Cavan.

# 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 for 2010 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.	15 years experience in the Waste and Recycling Industry	FAS Waste Management Course Manual Handling/Fire Training H&S Rep
Brian Abbott	Compliance Officer (April-Nov)	Compliance with EPA Licence Conditions. Liaising with EPA and Local Authority.	BSc in Environmental Health,	Safe Pass/Fire Training /manual Handling
Joan Harrington	Compliance Officer (Jan-April and December)	Overseeing Environmental Monitoring and Operation of the Weighbridge. Reporting of data	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	9 years experience in the Waste Industry	Manual Handling/Fire Training
Igor Chakin	Site Supervisor	Responsible for yard operations	9 years experience in waste recycling and disposal	Manual Handling/Fire Training

## 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