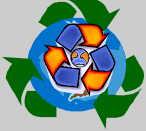


# ASHGROVE RECYCLING



And Waste Management

Churchfield Industrial Estate, Cork.

*E.P.A. Waste Licensed (Reg. W0147-1)*



Postal Address: Lehenaghmore, Togher, Cork

**Tel: 021-4310333**

**Email: [info@ashgroverecycling.ie](mailto:info@ashgroverecycling.ie)**

**Fax: 021-4305399**

## ANNUAL ENVIRONMENTAL REPORT 2008

Reporting Period 1<sup>st</sup> January – December 31<sup>st</sup> 2008

**Waste Transfer Station,  
John F. Connolly Road.  
Churchfield Industrial Estate, Cork  
Tel:- 021 4310333  
Fax:- 021-4323068  
E-mail:- [info@ashgroverecycling.ie](mailto:info@ashgroverecycling.ie)**

## Table of Contents

	Page No
Introduction	2
Annual Waste Metrics	3
Summary Report on Emissions	12
Summary report and Interpretations	13
Summary of Dust Monitoring	15
Noise Monitoring	17
Environmental Management Plan	32
Progress Review on Targets & Objectives	51
Resource Usage/ Energy Consumption	52
Tank Integrity / Drainage Integrity	53
Financial Provision / Management Structure	54
AER / PRTR	56

### **Facility Details:-**

Licence Registration Number: -	W0147/01
Name: -	Ashgrove Plant, t/a Ashgrove Recycling
Location: -	Churchfield Industrial Estate
Reporting Period: -	1 <sup>st</sup> January – December 31 <sup>st</sup> 2008

### **Introduction:-**

Ashgrove Recycling operates a materials recovery facility at Churchfield Industrial Estate, Cork. The Company began operations in July 2002. The facility is Located in an Industrial Estate north of Cork City. The site prior to construction was a Greenfield site in industrial zoned land. The site occupies 1.1 hectares and consists of a materials recovery building with associated offices and impermeable concreted surfaces. The operations at Ashgrove have positively helped the environment in diverting materials away from unnecessary land filling.

### **Waste Activities:-**

The waste streams that are processed at the facility are non hazardous. The facility does not accept liquid wastes. The majority of waste accepted at the facility is derived from construction and demolition activities.

Incoming waste is weighed on a Precia Molen weighbridge, and is then consigned to the material recovery building. The material is visually inspected to determine its compliance with waste acceptance criteria. Large items of timber and metal are removed mechanically and placed in to designated containers. Material that is not readily separated is fed into the Viper 123 city sizer and the action of the vibrating screen box separates out the soils and the fines. Larger material that does not fall through the screen mesh is deposited onto a conveyor belt and passes underneath a powerful over band magnet, which in turn removes the metal fraction. From here the remaining material moves through a Viper picking station where recoverable material is manually picked and deposited into hoppers which conveys the material into suitable containers. Plastic, glass, wood, non ferrous metal are separated from the material and the remaining material consists of light fractions of paper and plastic, along with a mixture of rubble and stones.

As this mixture falls below from the end of the belt, a high velocity air stream blows the lighter material into a catch net. The heavier material falls below into an awaiting receptacle. The recyclable material is brought to the respective industry for use as a raw material for further processing

**Wastes Received and consigned by the facility**

**Period:- 8<sup>th</sup> July 2002 to 26<sup>th</sup> Feb 2003**

Total Quantity of material handled (Incoming)	2,268,000 Kg	
<b>Recovery</b>	<b>Weight/Kg</b>	<b>EWC Codes</b>
<b>Wood</b>		15 01 03
Dunlee waste management	273,000.00	17 02 01
		19 12 07
CTO Environmental Solutions	151,290.00	20 01 38
<b>Cardboard/Paper</b>		15 01 01
Cork Recycling	48,000.00	19 12 01
		20 01 01
<b>Glass</b>		
Cork Mini Skips	25,140.00	15 01 07
		17 02 02
		19 12 05
		20 01 02
<b>Metals</b>		
Cork Metal	154,140.00	15 01 04
		17 04 07
		19 12 02
		19 12 03
		20 01 40
<b>Plastic</b>		
Cork Recycling	22,000.00	15 01 02
		17 02 03
		19 12 04
		20 01 39
<b>Rubble/Soil</b>		
Loftus Engineering, Kinsale Rd	647,070.00	17 01 01
	400,000.00	17 01 02
		17 01 03
		17 01 07
		17 05 04
<b>Disposal</b>		
<b>Residual Material</b>		
Kinsale Road Landfill	300,560.00	19 12 12
<b>Transferred to other facilities for Recovery/Disposal</b>		
Aherne Waste Management	170,000.00	20 03 01
Tyrone Recycling	76,800.00	15 01 05
		19 12 12
		20 01 0 8
		20 01 02

**Wastes Received and consigned by the facility**

**Period:- 01/01/03 to 31/12/03**

Total Quantity of material handled (Incoming)	10,741,510Kg	
<b>Recovery</b>	<b>Weight/Kg</b>	<b>EWC Codes</b>
<b>Wood</b>		15 01 03
Dunlee waste management	667,240	17 02 01
Medite	12,180	19 12 07
CTO Environmental Solutions	408,160	20 01 38
<b>Cardboard/Paper</b>		15 01 01
Cork Recycling	207,940	19 12 01
KRL	4,580	20 01 01
<b>Glass</b>		
MSM	9,190	15 01 07
		17 02 02
<b>Metals</b>		
Cork Metal	632,340	15 01 04
		17 04 07
		19 12 02
<b>Plastic</b>		
Cork Recycling	18,380	15 01 02
		17 02 03
<b>Rubble/Soil</b>		
Dan Sheehan	1,982,930	17 01 01
John Dunlee	3,169,460	17 01 02
Rossmore	193,470	17 01 03
Youghal	17,560	17 01 07
<b>Green Waste</b>		17 05 04
CTO	31260	20 02 02
<b>Disposal</b>		
<b>Residual Material</b>		
Kinsale Road Landfill	409,000	19 12 12
<b>Transferred to other facilities for Recovery/Disposal</b>		
Greenstar	1,800,970	20 03 01
Tyrone Recycling	76,800.00	15 01 05
Lehane Environmental	641,760	19 12 12
Glanmire	27,890	20 01 0 8
Mulleadys	296,910	20 01 02
Longford	22440	
Rosmore	75570	
Youghal	5820	
KRL	476,840	

**Wastes Received and consigned by the facility**  
**Period:- 01/01/05 to 31/12/05**

Total Quantity of material handled (Incoming)	10,741,510Kg	
<b>Recovery</b>	<b>Weight/Kg</b>	<b>EWC Codes</b>
<b>Wood</b>		15 01 03
		17 02 01
Meditate	3,811,080	19 12 07
CTO Environmental Solutions	32,000	20 01 38
<b>Cardboard/Paper</b>		15 01 01
Glyntown	347,250	19 12 01
		20 01 01
<b>Glass</b>		
SFL	631,160	15 01 07
		17 02 02
<b>Metals</b>		
Cork Metal	1,140,160	15 01 04
		17 04 07
		19 12 02
<b>Plastic</b>		
Glyntown	86,740	15 01 02
		17 02 03
<b>Rubble/Soil</b>		
Dan Sheehan	14,453,530	17 01 01
John Butler		17 01 02
		17 01 03
		17 01 07
<b>Green Waste</b>		17 05 04
CTO	59,520	20 02 02
<b>Disposal</b>		
<b>Residual Material</b>		
Kinsale Road Landfill	409,000	19 12 12
<b>Transferred to other facilities for Recovery/Disposal</b>		
Mulleadys	5,341,730	20 03 01
Rossmore		15 01 05
Thorntons		19 12 12
Portlaoise		20 01 08
Ballymackey		20 01 02

**Wastes Received and consigned by the facility**  
**Period:- 01/01/06 to 31/12/06**

Total Quantity of material handled (Incoming)		
Recovery	Weight/Kg	EWC Codes
<b>Wood</b>		15 01 03
Graingers	39,310	17 02 01
Wayerheuser, formellyMedite	2,830,790	19 12 07
CTO Environmental Solutions-Green Waste	65520	20 01 38
Timber - CTO Environmental Solutions	578700	
<b>Mixed Dry Recyclables</b> Thorntons	1,270,040	
<b>Cardboard/Paper</b>		15 01 01
Glyntown	443,640	19 12 01
		20 01 01
<b>Glass</b>		
SFL	263,520	15 01 07
Tullagower Recycling	920,580	17 02 02
<b>Gypsum</b>		
Cleanbuild	64,620	
Gypsum Industries	60,440	
<b>Metals</b>		
Cork Metal	1,155,040	15 01 04
Cable – National Recycling	246,240	17 04 07
		19 12 02
		17 04 01
<b>Bituminous Mixtures</b>		
John A Wood	75,177	
<b>Plastic</b>		
Glyntown	191800	15 01 02
Clearpoint	108,200	17 02 03
<b>Rubble/Soil</b>		
Con Cronin, Mourneabbey	4,132,890	17 01 01
John Butler	7,560,130	17 01 02
John A Wood	676,593	17 01 03
		17 01 07
<b>Green Waste</b>		17 05 04
CTO		20 02 02
<b>Disposal – Residual Material</b>		
<b>Residual Material</b>		
Ballaghveny	6,120,970	19 12 12
Mulleadys	84,740	
Rossmore	16,110	

**Wastes Received and consigned by the facility**  
**Period:- 01/01/07 to 31/12/07**

Total Quantity of material handled (Incoming)		
Recovery	Weight/Metric Tonnes	EWC Codes
<b>Wood</b>		15 01 03
Graingers		17 02 01
Wayerheuser, formellyMedite	4351.88	19 12 07
		20 01 38
<b>Mixed Dry Recyclables</b>		
Thorntons	4272	20 03 01
<b>Cardboard/Paper</b>		15 01 01
Glyntown		19 12 01
Cork Recycling, Lehenaghmore	474	20 01 01
<b>Glass</b>		
Tullagower Recycling	1448.86	15 01 07
		17 02 02
<b>Gypsum</b>		
Cleanbuild		
Gypsum Industries		
<b>Metals</b>		
Cork Metal	1672.22	15 01 04
Cable – National Recycling	30.32	17 04 07
		19 12 02
<b>Bituminous Mixtures</b>		17 04 01
John A Wood		
<b>Plastic</b>		
Glyntown	64	15 01 02
Clearpoint		17 02 03
Bernard O.Brien, Waterfall	24.02	
<b>Rubble/Soil</b>		
Con Cronin, Mourneabbey	3171	17 01 01
John Butler	7,403	17 01 02
Paudie Sheehan, Donoughmore	1428	17 01 03
Whites Cross	1037	17 01 07
<b>Gypsum/Plasterboard</b>		17 08 02
Cleanbuild	535	
Gypsum Recycling	96	
<b>Dry Recyclables</b>		
Thorntons		20 01 99
Clearpoint	200.38	
<b>Disposal – Residual Material</b>		
<b>Residual Material</b>		
Ballaghveny	1404.43	19 12 12
Youghal	6923.53	



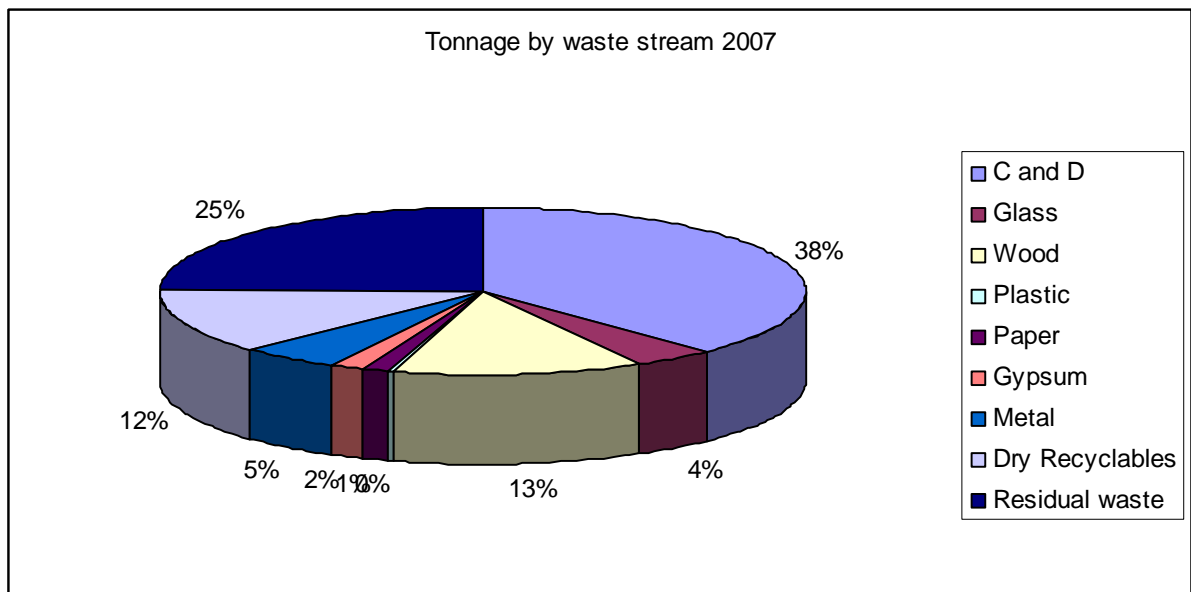
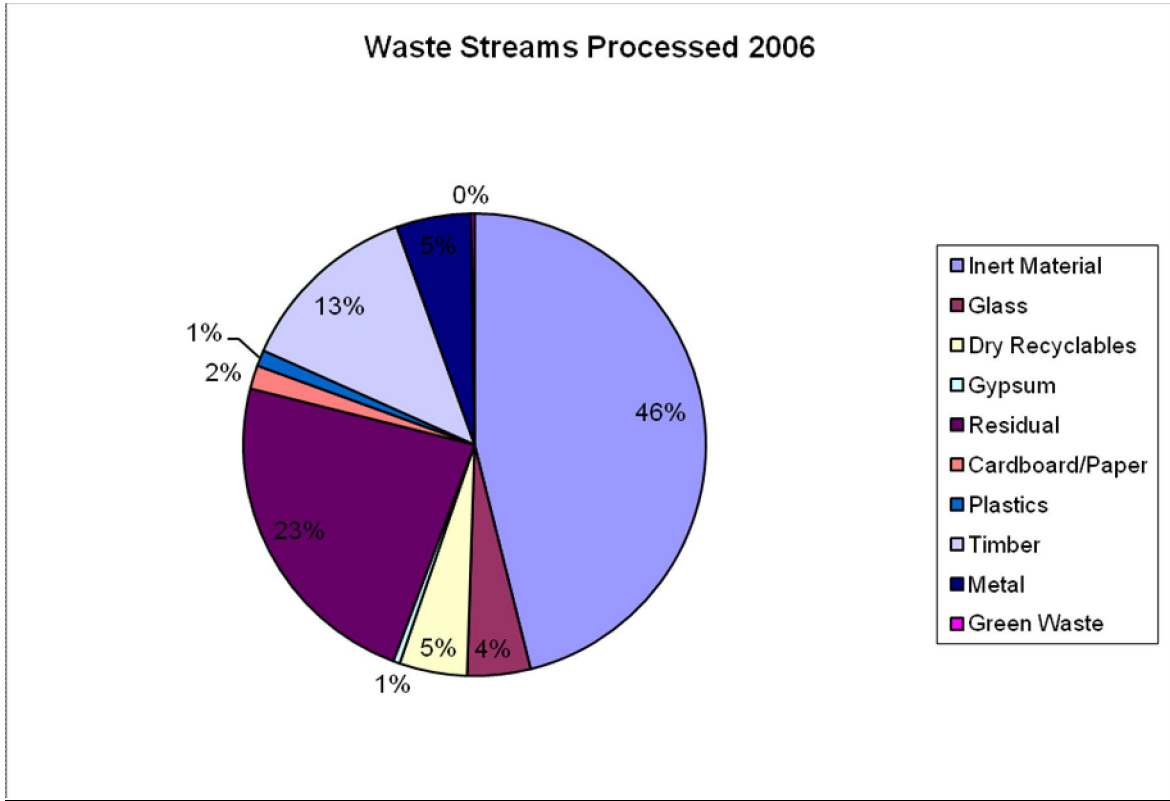
**Wastes Received and consigned by the facility**

**Period:- 01/01/08 to 31/12/08**

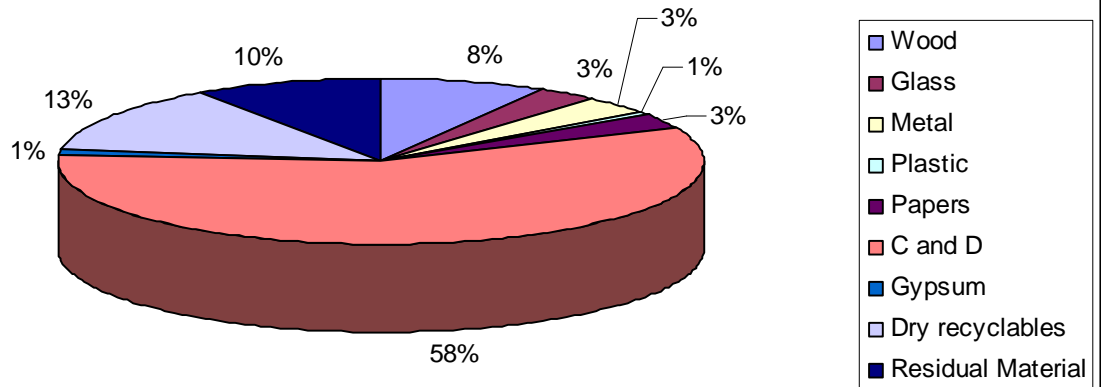
Total Quantity of material handled (Incoming)	Weight/Metric Tonnes	EWC Codes
<b>Recovery</b>		
<b>Wood</b>		15 01 03
Eirbloc	561	17 02 01
Wayerheuser, formellyMedite	2215 1574	15 01 03 17 02 01
Waste recovery services Fermoy	119	20 01 38
<b>WEEE</b>		
Veolia Environmental	.09	16 02 14 / 20 01 36
Veolia Environmental	2,18	16 02 13* / 20 01 35*
Veolia Environmental	.05	20 01 21*
Veolia Environmental	4.31	16 02 14 / 20 01 36
BC Waste Management	4.28	16 02 14 / 20 01 36
<b>Mixed Dry Recyclables</b>		
Thorntons	6991	20 03 01
AVR Safeway, Youghal, Co. Cork	553	20 03 01
<b>Cardboard/Paper</b>	1435	15 01 01
Glyntown		19 12 01
Cork Recycling, Lehenaghmore	55	20 01 01
<b>Glass</b>		
Clare Recycling	1632	15 01 07
<b>End of life tyres</b>		
Crossmore Tyres	11	16 01 03
<b>Mixture of Conc and Bricks</b>		
Mallow Contracts	7707	17 01 07
<b>Paint related materials</b>		
Veolia Environmental	.54	15 01 10
<b>Metals</b>		
Cork Metal	1659	17 04 07
Cable – National Recycling	12	17 04 11
National Recycling	30.33	17 04 02
Thornton's	81	15 01 04
Thornton's	37	15 01 04
<b>Bituminous Mixtures</b>		17 04 01
John A Wood		

<b>Plastic</b>		
Thorntons	318	15 01 02
Cork Recycling	22	17 02 03
Bernard O Brien Waterfall	100	17 02 03
<b>Rubble/Soil</b>		
Mallow Contracts	17,500	17 05 04
John Butler	7,403	17 01 02
Paudie Sheehan, Donoughmore	1428	17 01 03
Whites Cross	1037	17 01 07
<b>Gypsum/Plasterboard</b>		17 08 02
Cleanbuild	166	
Recycleworks, St Margarets, Co. Kildare	458	17 08 02
<b>Dry Recyclables</b>		17 08 02
Thorntons		20 01 99
Clearpoint	200.38	
<b>Disposal – Residual Material</b>		
<b>Residual Material</b>		
Gortadroma Landfill	841	20 03 01
Youghal	5098	
Kinsale road	827	

**2006, 2007 & 2008 Waste Streams Represented Graphically:-**



Tonnage by waste stream 2008



## **Summary Report on Emissions**

### **Emissions to waters/sewers**

There are no discharges directly to waters from the facility. Emissions are made to foul and surface water sewers only. Both effluent and surface water discharge are sampled at the facility. Both effluent types pass through a class 2 interceptor (full retention) prior to being emitted to the public sewer north of the facility. Foul water is cleaned of petrochemical contamination by passing through a 4000 litre full retention separator.

### **Foul effluent**

This consists of process effluent from waste handling activities within the MRF and of discharge (washings and surface water) from the bin washing area of the site. This effluent is monitored on a monthly basis as per conditions of licence W0147/01.

### **Surface water effluent**

This originates from rainwater and washings coming from the areas of hard standing at the site and from rainwater roof discharge. This effluent type is emitted to surface water sewer running west-east direction along the northern boundary of the site. Runoff from the yard also enters this sewer, however it is passed through an interceptor prior to discharging to public sewer.

### **Locations**

Surface and foul water monitoring is carried out at two locations (S01 and S02) to the north of the site.

### **Methods**

Foul water sampling is carried out by taking a grab sample below the V notch weir when there is adequate flow. Surface water sampling was carried out by full submergence of the container into the surface water body. Samples were stored appropriately and transferred within 24 hours for analysis, conducted by Alcontrol Laboratories. The results have been compared to the ELVs contained in Schedule C and D of waste licence 147/1. All surface and foul water results were in compliance with the emission limit values contained in the licence.

### Summary of Results & Interpretations – Environmental Monitoring

Monitoring Point	Grid Reference
F 01	165933 E 73611N

#### Summary of Foul Water Effluent Analysis

Parameter	BOD	COD	Amm. Nitrogen	Suspended Solids	Sulphate	p.H	Temp	MBAS	F.O.Gs
Sampling Date	mg/l	mg/l	mg/l	mg/l	Mg/l		°o	Mg/l	mg/l
31/01/08	210	465	7.6	236	118	7.3	11.2	2	3
28/02/08 *									
27/03/08	25	204	2.8	25	114	7.2	10.4	.2	1
30/04/08	133	361	11.9	45	124	8.1	11.4	2	1
22/05/08	70	274	2.3	13	91	7.8	12.2	2.2	2
30/06/08 *									
31/07/08	20	120	.6	NDP	100	7.4	14		9
28/08/08	83	114	2	<10	109	7.5	15	6.1	1
30/09/08	35	231	3.5	48	88	7.4	16	5.9	3
23/10/08	24	84	1.6	346	91	8	13	2.6	2
27/11/08	27	96	6	20	96	7	15	2	<1
22/12/08		56	2.2	<10	118	8	14	4.4	<1

\* Unable to obtain a representative sample.

#### Summary of Surface Water Effluent Analysis

Sampling Date	BOD Mg/l	Suspended Solids Mg/l	Am. Nitrogen NH 4 Mg/l	pH	Mineral Oils
22/5/08	664	<10	<0.2	8	<10

### **Interpretation of Results:-**

Foul water results have been within the Emission Limit Values as specified within the licence for 2008. This is confirmed also by Agency monitoring, however, on a few occasions the ELV for sulphates have exceeded the allowed limit.

Segregation of waste streams that may give rise to elevated sulphates have been isolated so as to prevent ingress of sulphates within the Drainage system.

BOD and COD levels are all well within allowable limits. This is also true for the other parameters that require testing.

Testing carried out by Cork City Council to determine if effluent is within limits as specified within discharge licence W.P. (S) 608/09 have demonstrated that they are all within the specified limits.

The interceptors are cleared of contents on a regular basis and drainage inspections all help positively in achieving compliance.

### **Summary of Dust Monitoring**

The dust gauges were set up at the locations D1, D2, D3 and D4 as specified in Table D1.1 of the Waste Licence. The gauges were erected such that the containers were 1.8 m above ground level. The containers were exposed for a 30 day period.

D1: This sample location is sited at the southeast corner of the site.

D2: This sample location is sited at the northwest corner of the site.

D3: This sample location is sited at the southwest corner of the site.

D4: This sample location is sited at the northeast corner of the site.

Monitoring Point	Easting	Northing
D1	166017	73499
D2	165915	73549
D3	165941	73484
D4	165990	73619

The results of the dust monitoring are outlined in the tables below, along with graphical representation of results.

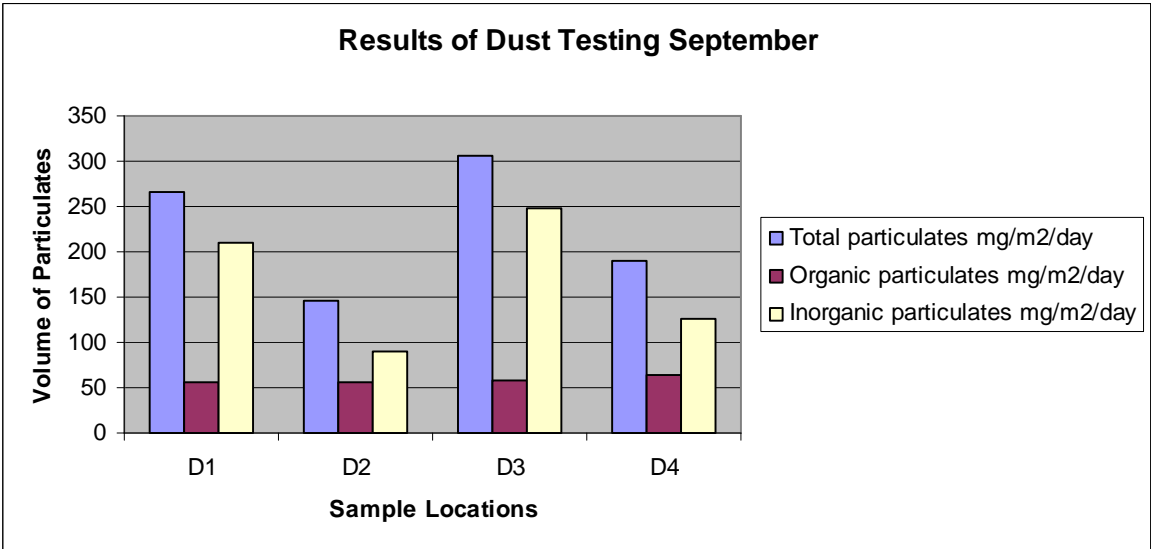
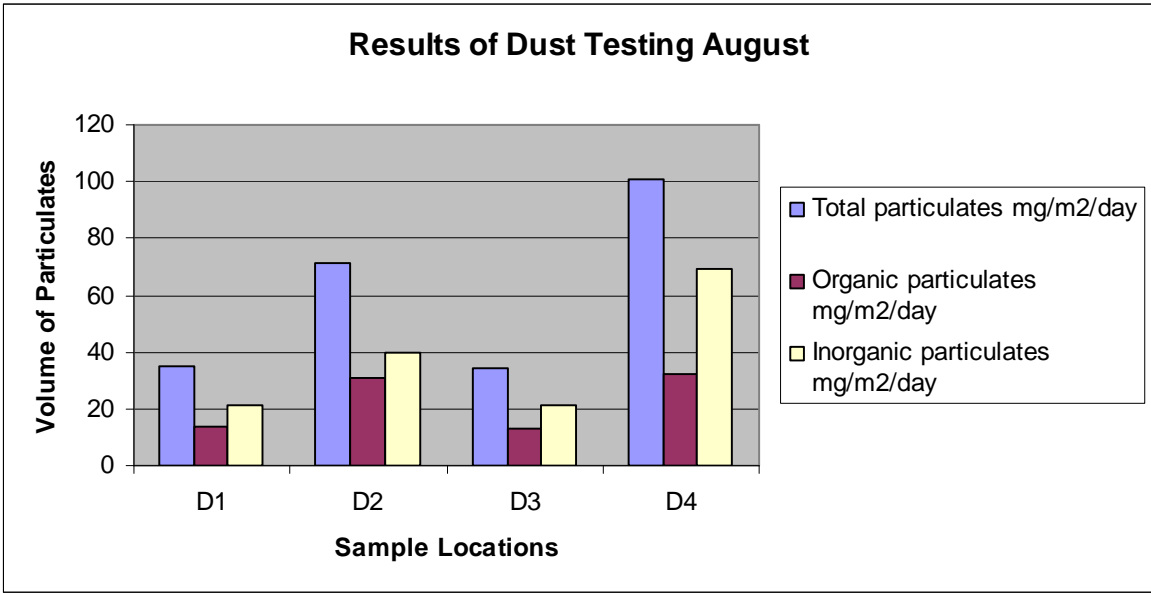
#### **1<sup>st</sup> – 30<sup>th</sup> August 2008**

Station	Total Dust mg/m <sup>2</sup> /day	Organic Dust	Inorganic Dust
D1	35	14	21
D2	71	31	40
D3	34	13	21
D4	101	32	69

#### **1<sup>st</sup> – 30<sup>th</sup> September 2008**

Station	Total Dust mg/m <sup>2</sup> /day	Organic Dust	Inorganic Dust
D1	267	56	211
D2	146	57	90
D3	306	58	248
D4	191	65	126





**Conclusion:-**

The on-site dust levels are within the EPA permitted levels of 350 mg/m<sup>2</sup>/day. This was achieved by regular spraying of the yard during dry gusty conditions and this in conjunction with sweeping using power sweeper. The third batch of samples were damaged in transit and could not undergo accurate analysis.

## **Bi-Annual Noise Monitoring**

### CONTENTS

#### INTRODUCTION

#### SURVEY DETAILS

Measurements

Equipment

Weather Conditions

Permitted Noise Levels

Noise Terminology

Noise Monitoring Locations

#### RESULTS

Ambient Measurements

On-Site Sources

#### OBSERVATIONS

#### CONCLUSIONS

#### APPENDIX A – 1/3 Octave Band Analysis

## INTRODUCTION

Patrick Power B.Sc MIOA was commissioned by Ashgrove Recycling to conduct a bi-annual noise survey at their premises at John F Connelly Road, Cork. This survey was conducted to comply with the requirements of the Waste Licence for the facility. The licence (register no. W0147-1) was issued by the Environmental Protection Agency to the company in March 2002.

## SURVEY DETAILS

The following are the details of the survey as carried out at Ashgrove Recycling on the 4<sup>th</sup> June 2008. The survey was carried out in accordance with the EPA Noise Survey Guidance Document 2006.

### Measurements

Patrick Power B.Sc MIOA carried out measurements at the locations in Schedule D of the licence. All measurements were carried out in accordance with ISO 1996 and EPA Noise Survey Guidance document as specified in the waste licence for the facility.

### *Equipment*

The survey was carried out with a Bruel & Kjaer 2260 Investigator Sound Level Meter. The unit was calibrated before and after use. The instrument was calibrated with a Bruel & Kjaer Type 4231 Sound Level Calibrator, in accordance with ISO 1996-1: 1982 prior to commencing the survey using the recommended calibration procedure and a known pure tone noise source.

### *Weather Conditions*

On the 4th June 2008, weather conditions were recorded with a temperature of 17<sup>0</sup>C, and wind speed of <1 m/s.

### *Permitted Noise Limits*

Table 2.2 below shows the permitted noise levels acceptable outside the site boundaries as given in Schedule D of the waste licence for the facility.

Table 2.1: Noise Monitoring Frequency & Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
$L_{Aeq}$ [30 minutes]	Bi-annual	International Standards Organisation. ISO 1996. Acoustics – Description and Measurement of Environmental Noise. Parts 1, 2 and 3.
$L_{A10}$ [30 minutes]	Bi-annual	
$L_{A90}$ [30 minutes]	Bi-annual	
Frequency Analysis (1/3 Octave Band Analysis)	Bi-annual	

The noise emission limits are given in Schedule C of the licence and are tabulated below.

Table 2.2: Noise Emission Limits

Day dB(A) $L_{Aeq}$ [30 minutes]	Night dB(A) $L_{Aeq}$ [15 minutes]
55	45

Furthermore the EPA requires that there be no audible tones or impulsive components at any noise-sensitive location.

#### Noise Terminology

The noise monitoring results for the noise sensitive locations (M1-M4) are provided in Table 2.3.

In order to understand the terms used, some definitions are outlined as follows:

$L_{AF10}$  Refers to those levels in the Top 10 percentile of the sampling interval; it is the level, which is exceeded for 10% of the measurement period. It is used to determine the intermittent high noise level features of locally generated noise.

$L_{AF90}/L_{AF95}$  Refers to those levels in the lower 90/95 percentile of the sampling interval; it is the level which is exceeded for 90%/95% of the measurement period. It is used to estimate a background level.

$L_{Aeq}$  The average level recorded over the sampling period. The closer the  $L_{Aeq}$  value is to either the  $L_{AF10}$  or  $L_{AF90}$  value indicates the relative impact of the intermittent sources and their contribution. The relative spread between the values determines the impact of noise on the background.

#### Noise Monitoring Locations

The following is a description of the noise sensitive locations monitored during the bi-annual noise survey.

Location	Description
M1 (E 166056 N 73491)	On roadside close to FÁS training centre, east of the Ashgrove recycling facility
M2 (E 165915 N 73549)	At the “old roundabout” to the west of the facility perimeter
M3 (E 166283 N 73727)	Upper Fair Hill Road adjacent to Fair Green
M4 (E 165868 N 73758)	Outside houses on Nash’s Boreen

## RESULTS

### Ambient Measurements

The results of the noise monitoring at locations M1-M4 is presented in octave band data below. The 1/3 octave band data is presented in Appendix A.

Table 3.1 Ambient Measurements (Locations M1 - M4)

Monitoring Location	Time and Date	$L_{Aeq, 30min}$ dB(A)	$L_{A90, 30min}$ dB(A)	$L_{A10, 30min}$ dB(A)
M1	04/06/08 14:42-15:12	58.1	48.2	60.0
M2	04/06/08 14:18-14:38	64.2	57.4	62.6
M3	04/06/08 15:58-16:28	67.7	53.7	71.4
M4	04/06/08 15:21-15:51	55.5	41.0	54.4

### Observations

### Location M1

The main noise source at this location was the activities in an adjacent waste facility. Traffic movements to the Ashgrove facility also contributed to the average noise levels. The  $L_{Aeq}$  was recorded at 64.2dB(A). There was no significant operational noise audible from the Ashgrove facility audible at this location. The background noise was recorded at 48.2dB (A).

### Location M2

Construction works and traffic movements at the newly opened industrial units close to the entrance to the Ashgrove facility together with operational and traffic noise from Ashgrove facility contributed to the ambient noise levels at M1. The average noise level was recorded at 58.1dB (A) and the  $L_{90}$  was 54.1dB (A). The background noise level indicates that the specific noise from the Ashgrove premises is within the 55dB (A) limit as specified in the Waste Licence.

### Location M3

At location M3 the traffic on the Upper Fairhill Road was the dominant source of noise. The high  $L_{AF10}$  levels are an indication of traffic noise. There was no contribution from the Ashgrove facility at this location. The  $L_{Aeq}$  was recorded at 67.7dB (A).

### Location M4

There was only minimal noise audible from the Ashgrove facility at his location. The average noise levels were influenced by local passing traffic and the background levels were influenced by the distant traffic from the Mallow Road. The  $L_{Aeq}$  was recorded at 55.5dB (A) and the  $L_{90}$  was 41.0dB (A).

## CONCLUSIONS

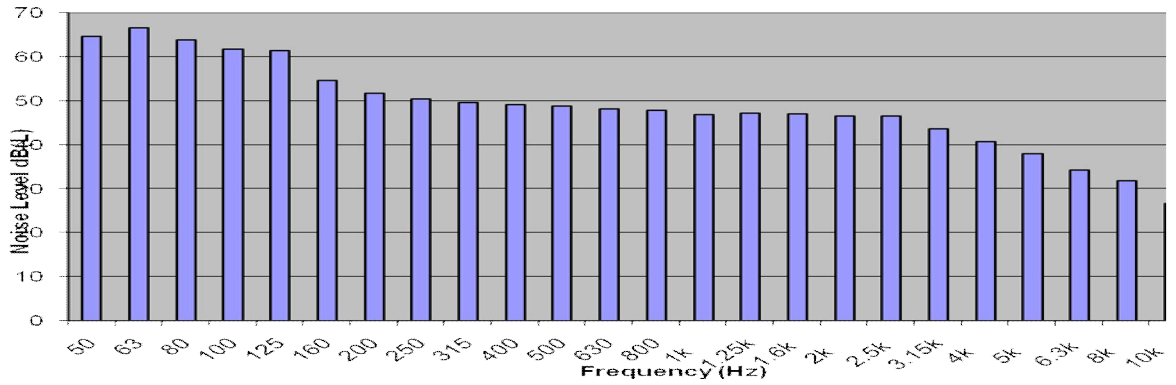
There was no audible noise from the facility at 3 of the 4 monitoring locations. At location M2 close to the facility the average noise level was recorded at 58.1dB (A). Traffic movements and operational noise influenced the average noise levels. The area is zoned industrial and other local industry also contributed to the ambient levels. Other local noise from the Waters Glass facility and construction of industrial units influenced the local noise levels.

In conclusion the noise levels emanating from the Ashgrove facility are considered not to be impacting on local sensitive areas.

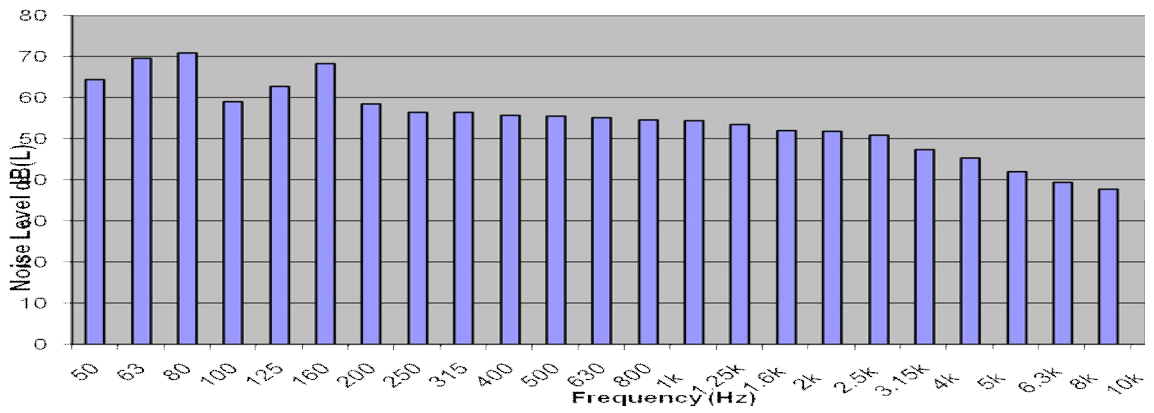
APPENDIX A

NOISE MONITORING SPECTRUM

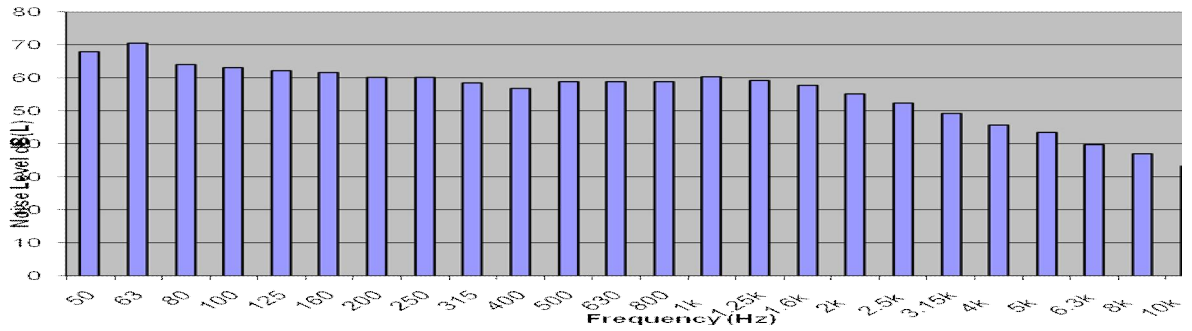
Noise Spectrum at M1



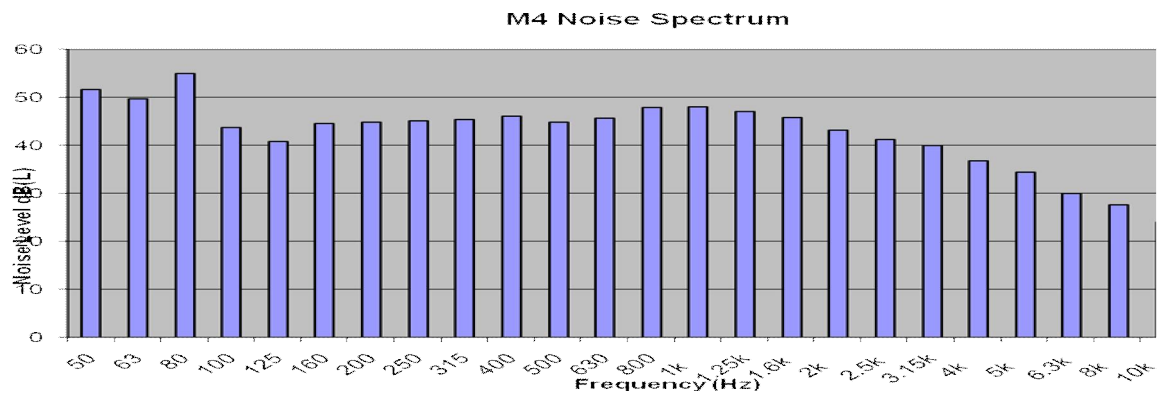
Noise Spectrum at M2



Noise Spectrum at M3







## NOISE MONITORING NOVEMBER 2008

### SURVEY DETAILS

The following are the details of the survey as carried out at Ashgrove Recycling on the 4<sup>th</sup> November 2008. The survey was carried out in accordance with the EPA Noise Survey Guidance Document 2006.

#### Measurements

Patrick Power B.Sc MIOA carried out measurements at the locations in Schedule D of the licence. All measurements were carried out in accordance with ISO 1996 and EPA Noise Survey Guidance document as specified in the waste licence for the facility.

#### *Equipment*

The survey was carried out with a Bruel & Kjaer 2260 Investigator Sound Level Meter. The unit was calibrated before and after use. The instrument was calibrated with a Bruel & Kjaer Type 4231 Sound Level Calibrator, in accordance with ISO 1996-1: 1982 prior to commencing the survey using the recommended calibration procedure and a known pure tone noise source.

#### *Weather Conditions*

On the 4th November 2008, weather conditions were recorded with a temperature of 17<sup>0</sup>C, and wind speed of <1m/s.

#### *Permitted Noise Limits*

Table 2.2 below shows the permitted noise levels acceptable outside the site boundaries as given in Schedule D of the waste licence for the facility.

Table 2.1: Noise Monitoring Frequency & Technique

Parameter	Monitoring Frequency	Analysis Method/Technique
L <sub>Aeq</sub> [30 minutes]	Bi-annual	International Standards Organisation. ISO 1996. Acoustics – Description and Measurement of Environmental Noise. Parts 1, 2 and 3.
L <sub>A10</sub> [30 minutes]	Bi-annual	
L <sub>A90</sub> [30 minutes]	Bi-annual	
Frequency Analysis (1/3 Octave Band Analysis)	Bi-annual	

The noise emission limits are given in Schedule C of the licence and are tabulated below.

Table 2.2: Noise Emission Limits

Day dB(A) $L_{Aeq}$ [30 minutes]	Night dB(A) $L_{Aeq}$ [15 minutes]
55	45

Furthermore the EPA requires that there be no audible tones or impulsive components at any noise-sensitive location.

### Noise Terminology

The noise monitoring results for the noise sensitive locations (M1-M4) are provided in Table 2.3.

In order to understand the terms used, some definitions are outlined as follows:

$L_{AF10}$  Refers to those levels in the Top 10 percentile of the sampling interval; it is the level, which is exceeded for 10% of the measurement period. It is used to determine the intermittent high noise level features of locally generated noise.

$L_{AF90}/L_{AF95}$  Refers to those levels in the lower 90/95 percentile of the sampling interval; it is the level which is exceeded for 90%/95% of the measurement period. It is used to estimate a background level.

$L_{Aeq}$  The average level recorded over the sampling period. The closer the  $L_{Aeq}$  value is to either the  $L_{AF10}$  or  $L_{AF90}$  value indicates the relative impact of the intermittent sources and their contribution. The relative spread between the values determines the impact of noise on the background.

### Noise Monitoring Locations

The following is a description of the noise sensitive locations monitored during the bi-annual noise survey.

Location	Description
M1 (E 166056 N 73491)	On roadside close to FÁS training center, east of the Ashgrove recycling facility
M2 (E 165915 N 73549)	At the “old roundabout” to the west of the facility perimeter

M3 (E 166283 N 73727)	Upper Fair Hill Road adjacent to Fair Green
M4 (E 165868 N 73758)	Outside houses on Nash's Boreen

## RESULTS

### Ambient Measurements

The results of the noise monitoring at locations M1-M4 is presented in octave band data below. The 1/3 octave band data is presented in Appendix A.

Table 3.1 Ambient Measurements (Locations M1 - M4)

Monitoring Location	Time and Date	$L_{Aeq, 30min}$ dB(A)	$L_{A90, 30min}$ dB(A)	$L_{A10, 30min}$ dB(A)
M1	04/09/08 14:42-15:12	63.7	58.8	65.2
M2	04/09/08 14:18-14:38	57.3	51.0	60.4
M3	04/09/08 15:58-16:28	65.5	48.6	68.0
M4	04/09/08 15:21-15:51	56.6	39.6	55.8

### Observations

#### Location M1

The main noise source at this location was the from activities in industrial buildings close to the monitoring location in particular the Waters Glass facility. Traffic movements to the Ashgrove facility also contributed to the average noise levels. The  $L_{Aeq}$  was recorded

at 63.7dB(A). There was no significant operational noise audible from the Ashgrove facility audible at this location. The background noise was recorded at 54.2dB(A).

#### Location M2

Traffic movements to and from the newly opened industrial units close to the entrance of the Ashgrove facility, together with operational and traffic noise from Ashgrove facility contributed to the ambient noise levels at M1. The average noise level was recorded at 57.3dB(A) and the L<sub>90</sub> was 51.0dB(A). The background noise level indicates that the specific noise from the Ashgrove premises is within the 55dB(A) limit as specified in the Waste Licence.

#### Location M3

At location M3 the traffic on the Upper Fairhill Road was the dominant source of noise. The high L<sub>AF10</sub> levels are an indication of traffic noise. There was no contribution from the Ashgrove facility at this location. The L<sub>Aeq</sub> was recorded at 65.5dB(A).

#### Location M4

There was only minimal noise audible from the Ashgrove facility at his location. The average noise levels were influenced by local passing traffic and the background levels were influenced by the distant traffic from the Mallow Road. The L<sub>Aeq</sub> was recorded at 56.6dB(A) and the L<sub>90</sub> was 39.6dB(A).

### CONCLUSIONS

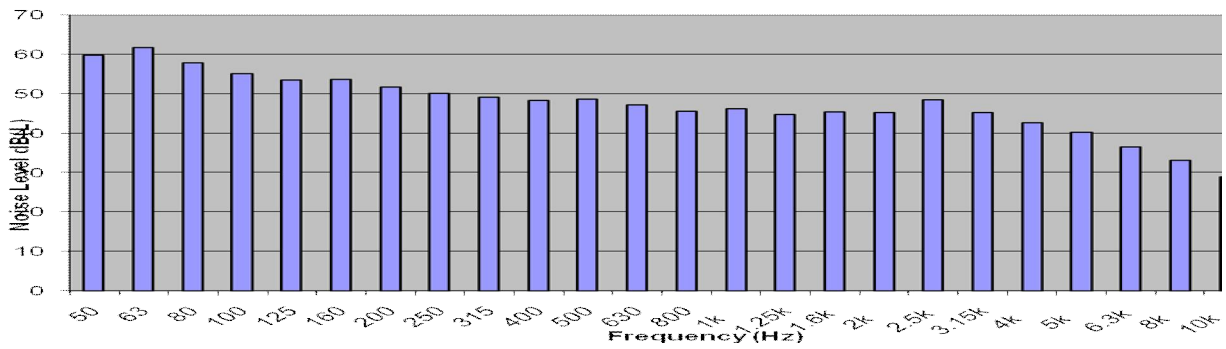
There was no audible noise from the facility at 3 of the 4 monitoring locations. At location M2 close to the facility the average noise level was recorded at 57.3dB (A). Traffic movements and operational noise influenced the average noise levels. The area is zoned industrial and other local industry also contributed to the ambient levels. Other local noise from the Waters Glass facility and construction of industrial units influenced the local noise levels.

In conclusion the noise levels emanating from the Ashgrove facility are considered not to be impacting on local sensitive areas.

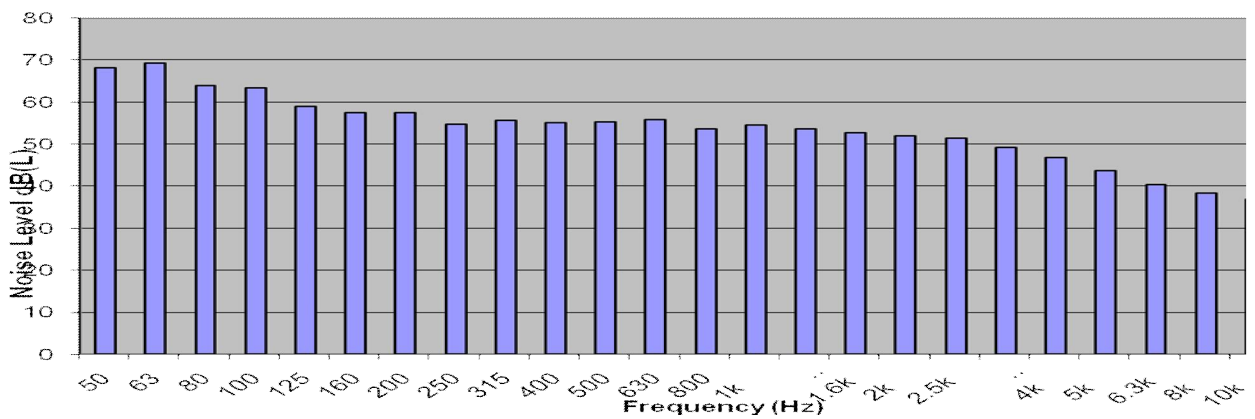
**APPENDIX A**

**NOISE MONITORING SPECTRUM**

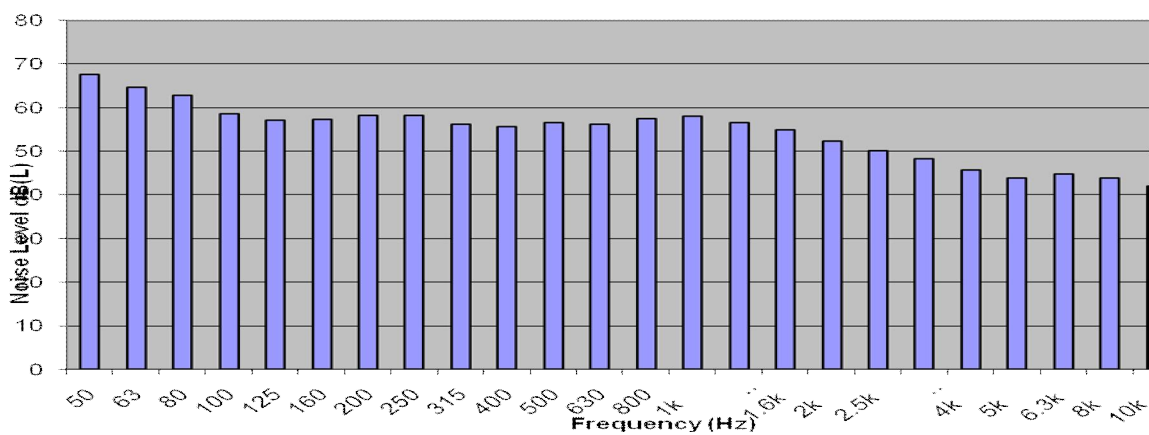
Noise Spectrum at M1



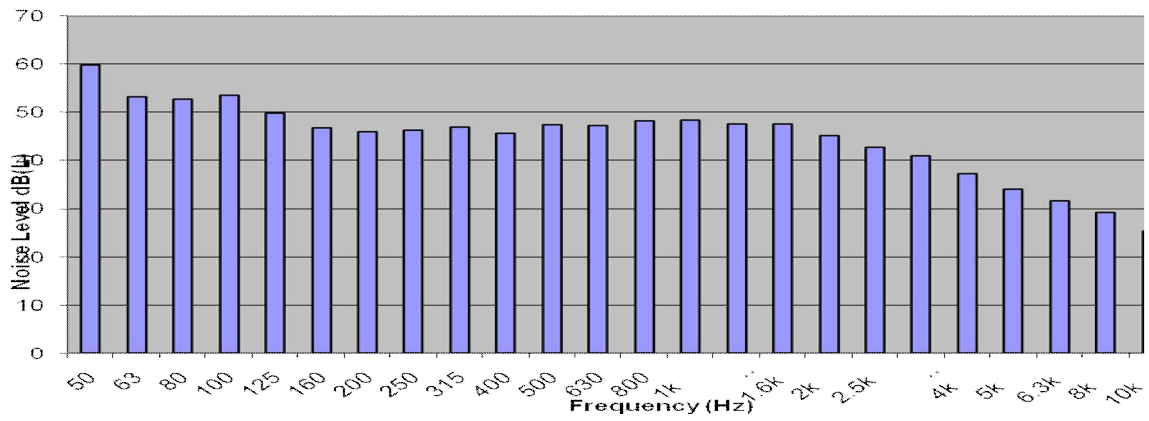
Noise Spectrum at M2



Noise Spectrum at M3



M4 Noise Spectrum





**Environmental Management Plan / Schedule of Targets &  
Objectives**

**Introduction:-**

This Environmental Management Plan was prepared to ensure compliance with Condition 2.3 of EPA Waste licence Registered Number 147/1 with respect to activities concerning:-

**Ashgrove Recycling,  
John. F. Connolly Road,  
Churchfield Industrial Estate,  
Churchfield,  
Cork.**

The Environmental Management System involves the implementation of a system, which forms the basis for continuous, structured and quantifiable improvement in a facilities environmental performance.

Ashgrove Recycling operates a Materials Recovery Facility in conjunction with a skip hire business at Churchfield Industrial Estate, Cork. The waste, which is collected primarily from Construction/Demolition and Commercial Activities within the functional areas of Cork City and County Council, is separated into recyclable and unrecoverable fractions at the facility. The redeemable material is transferred to various associated industries for recycling with the residual unrecoverable materials being landfilled.

**Purpose:-**

The purpose of this Environmental Management Programme is to ensure that the schedule of targets and objectives are supported and fully implemented throughout the company. It will help the company achieve continual improvement in an environmental context. It will provide the facility with the framework to operate in conjunction with the waste licence and strive to achieve good environmental practice for the operation of the facility.

The development of a set of comprehensive procedures for Ashgrove Recycling across all departments continued from what was initiated in 2004. A number of additional procedures have been implemented at Ashgrove Recycling Centre in relation to facility operations in 2005. These include;

- a) **Communications Procedure** – This procedure ensures that effective and responsive measures are in place at Ashgrove Recycling Centre to deal with requests for environmental information at the facility.
- b) **Vehicle Emergency Response Procedure** – This procedure is designed to protect driving employees during emergency situations.
- c) **Fire Extinguisher Installation Standard** – This procedure has unified the way in which fire extinguishers are mounted in Ashgrove Recyclings facility. The standard complies with all aspects of I.S.291: 1986, the Irish standard for the use, sitting, inspection and maintenance of portable fire extinguishers.
- d) **No Smoking Procedure** - This is an important procedure for the protection of the safety of all employees. All aspects of the Public Health (Tobacco) Act 2004 are considered in this procedure and bring the Ashgrove Recycling Operations into line with the requirements of the Act.
- e) **Hot Works Permit Procedure** – In conjunction with the No Smoking Procedure, a ‘Hot Works Procedure’ is now in place at Ashgrove Recycling operations. This is to ensure that all the appropriate measures are taken to reduce the risk of fire in the event of hot works taking place.
- f) **Control of Sub Contractors** – As all employees are exposed to the hazards and risk that the Ashgrove Recycling operations present, so to are all contractors that work on our sites. This procedure will ensure that the contractors that are brought onto work on Ashgrove Recycling operations are trained, certified and experienced operators of there equipment. It will also ensure that the standard of sub-contractors that Ashgrove Recycling utilises, comply with all aspects of the law in regards to there operations whilst on Ashgrove Recycling operations.

## Schedule of Objectives and Targets 2009

<u>Objectives</u>	<u>Targets</u>
1. Increase area of concreted surface, i.e.:- Impermeable Hard standing at the facility	To increase concrete surface area by 1803m <sup>2</sup> within the next 3 years and d to commence in May of this year.
2. To reduce the amount of residual waste going to landfill.	To reduce residual waste going to landfill by 2% per annum.
3. Water Conservation	Reduce annual consumption by 5%.
4. Reduce energy wastage at the facility	10% reduction in consumption compared to last years usage.
5. Reduce litter within and around the site vicinity	Eradicate all extraneous litter from Ashgroves activities in and around the site. Carry out daily Inspections.
6. Reduce emissions from the development	Reduce dust emissions to the atmosphere by 10% for the beginning of 2008. Implement further dust suppression equipment
7. Reduce instances of hazardous waste coming to the facility	Negotiate with customers. Site audits to identify non-compliant waste streams and report back to site/facility manager
8. To eliminate adverse spillages of engine oil	To reduce incidences of oil spillage by regular checks and providing suitable bunding
9. To reduce emissions from vehicles	To reduce vehicular emissions and carry out further research on running Ashgrove's fleet of trucks on bio fuels within a two year period
10. Replacing of all Lighting	To replace all lighting with low energy light fittings/bulbs within the next 2 years .
11. Construction of permanent Offices	To replace temporary offices with permanent offices to make them energy efficient and well constructed to cut down on energy consumption
12. Replacement of all motors and appliances with energy efficient ones	To look at the feasibility of replacing of electric motors and appliances with energy efficient one that consume less power
13. Reduction of Noise Nuisance	To reduce noise nuisance from the operation of the facility, by the housing of all plant.

**The above will be reviewed regularly and notes compiled regularly to identify needs, etc. At the end of the year these reviews will help the compilation of the progress report.**

**Objective 1:- Increase area of concreted surface, i.e.:- Impermeable Hard standing at the facility**

<p><b>Advantages to implement objective:-</b></p>	<p>The success of the project will yield several benefits to the environmental performance of the facility. It will also help the site by increasing the operational area.</p> <p>The concreting development will prevent the development of mud nuisance, and prevent runoff, etc from entering groundwater and possibly effecting soils.</p> <p><i>Note:- Hard standing to conform to British Standard 8110</i></p> <p>In keeping with the EPA Guidance note for Annual Environmental Report, Ashgrove have set targets, which are “demanding”. It should be noted that the targets set in the EMP are just “targets”. However, Ashgrove will endeavour to make every reasonable effort to achieve the set targets.</p>
<p><b>Target:-</b></p>	<p>To have 1803m<sup>2</sup> of the yard concreted within the next 2 years. This is to continue on from the existing concreted area.</p>
<p><b>Programme for achieving Target</b></p>	<p>Task 1:- Identify area to be concreted and calculate area.</p> <p>Task 2 :- Take levels to identify areas that need fill</p> <p>Task 3:- Divide into sections and prepare construction schedule and bill of quantities.</p> <p>Task 4:- Calculate flow rates for maximum rainfall intensity from Irish climatic data and identify if current interceptor is of sufficient size to deal with surface run off.</p> <p>Task 5:- Installation of silt traps and associated works.</p> <p>Task 6:- Order steel, aggregate and 30N Concrete</p> <p>Task 7:- Obtain quotations from Concrete Contractors, subsequent to identifying best tender, set date for commencement of works.</p>
<p><b>Responsibility for Project:-</b></p>	<p>The facility Manager and Environmental Manager are responsible for implementing this project, through to project completion.</p>

Table 1.1:-

2009	Jan	Feb	Mar	April	May	June	July	August	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												
Task 7												

**Objective 2:- To reduce the amount of residual waste going to landfill.**

<b>Advantages to implement objective:-</b>	Any reduction in residual waste going to landfill has several positive environmental effects. It helps to conserve natural resources when recycling, etc is carried out. It also has the added benefit of preventing the unnecessary land filling of materials as land filling must be the last option once all other possibilities have been explored.
<b>Target:-</b>	In keeping with the EPA Guidance note for Annual Environmental Report, Ashgrove have set targets, which are “demanding”. It should be noted that the targets set in the EMP are just “targets”. However, Ashgrove will endeavour to make every reasonable effort to achieve the set targets.  To reduce residual waste going to landfill by 5% per annum.
<b>Programme for achieving Target</b>	Task 1:- Identify existing rates of recovery  Task 2:- Carry out regular assessments within the Material Recovery Building to identify if any recycled material is being waste stockpiled to be destined to landfill.  Task 3:- If it is evident that recyclable material is being stockpiled for landfill, then a meeting will be held with MRB staff whereby the materials which are relevant will be displayed.  Task 4:- Identify the best method to segregate these recyclable materials.  Task 5:- Review process regularly with the possibility of investing more in recycling infrastructure Task 6:- Implement any findings.
<b>Responsibility for Project:-</b>	The Facility Manager is responsible for implementing this project with the assistance of the Waste Controller. The Waste Inspector will assist with Task 2. It will be the responsibility of the Environmental Manager to assist with providing information to the Agency in relation to proposed destination for recovered materials.

**Table 2.1:-**

2009	Jan	Feb	Mar	April	May	June	July	August	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												

**Note:- Tasks 2,3,4 are to be carried out simultaneously**

**Objective 3:- Water Conservation**

<p><b>Advantages to implement objective:-</b></p>	<p>Water conservation is very significant as it's a precious resource whose significance is undermined by many. Water conservation makes good economic sense as an industrial activity the water consumption is metered and any reduction in consumption patterns will have a positive effect in financial savings.</p>
<p><b>Target:-</b></p>	<p>In keeping with the EPA Guidance note for Annual Environmental Report, Ashgrove have set targets, which are “demanding”. It should be noted that the targets set in the EMP are just “targets”. However, Ashgrove will endeavour to make every reasonable effort to achieve the set targets.</p> <p>Reduce annual consumption by 10% compared to last year's usage .i.e. 2008.</p>
<p><b>Programme for achieving Target</b></p>	<p>Task 1:- Identify plant and appliances that consume water</p> <p>Task 2:- Evaluate if the water consumption can be reduced without hindering performance of equipment.</p> <p>Task 3:- Look at water saving equipment such as press valve taps, etc. The use of water sprayer for dust control is being filled off rain water run-off.</p> <p>Task 4:- Compile information sheet and distribute to employees.</p> <p>Task 5:- See if surface water collection from the roof is feasible, water collected from the roof can be used for power washing.</p> <p>Task 6:- Have a meeting with other employees and outline the importance of water conservation.</p> <p>Task 7:- Installation and implementing recommendations</p>
<p><b>Responsibility for Project:-</b></p>	<p>The facility Manager and Environmental Manager will have responsibility for implementing this Objective.</p>

**Table 3.1:-**

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												
Task 7												

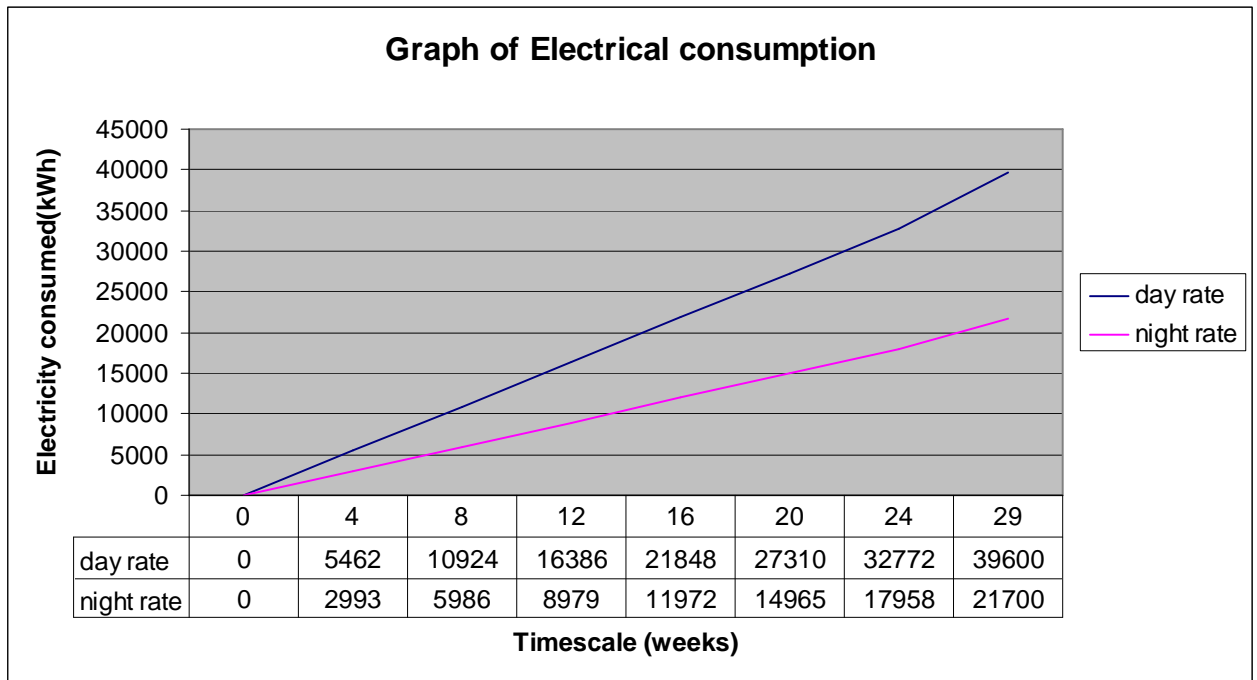
**Objective 4:- Reduce energy wastage at the facility**

<p><b>Advantages to implement objective:-</b></p>	<p>The reduction in energy will prevent the unnecessary release of CO<sub>2</sub>, along with other pollutants to the atmosphere. This is due to the fact that most electricity is generated by fossil fuels in Ireland. Renewable energies are not been exploited to their potential. It will also reduce running costs for the facility as energy costs have rising by over 30% in the past three years.</p>
<p><b>Target:-</b></p>	<p>In keeping with the EPA Guidance note for Annual Environmental Report, Ashgrove have set targets, which are “demanding”. It should be noted that the targets set in the EMP are just “targets”. However, Ashgrove will endeavour to make every reasonable effort to achieve the set targets. 10% reduction in consumption compared to last years usage.</p>
<p><b>Programme for achieving Target</b></p>	<p>Task 1:- Identify the major sources of energy usage at the facility and conduct energy audit.</p> <p>Task 2:- Report findings to licensee. Suggest ways in improving controls, etc.</p> <p>Task 3:- Compile energy awareness literature and distribute amongst staff, incorporating findings of energy audit.</p> <p>Task 4:- Regularly show employees where energy is being wasted, such as leaving heating and light on unnecessarily. Also, switching plant machinery and vehicles off when not in use. This will also have a positive effect on reducing emissions.</p> <p>Task 5:- Asses the effect the above is having on energy consumption. Look at electrical/fuel billing for the previous three months since project implementation and compare with the subsequent three months. Take seasonal variations into account.</p> <p>Task 6:- Install control mechanisms if deemed necessary for project success.</p> <p>Task 7:- Review programme regularly</p>
<p><b>Responsibility for Project:-</b></p>	<p>The responsibility for this lies with the Environmental Manager</p>

**Table 4.1:-**

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												
Task 7												





**Objective 5:- Reduce litter within and around the site vicinity**

<p><b>Advantages to implement objective:-</b></p>	<p>It's a stipulation of the waste licence under condition 7.4 that all loose litter not permitted by the licensee shall be removed from the vicinity of the facility as soon as possible. This type of litter is visually unacceptable and has the potential to create a nuisance.</p>
<p><b>Target:-</b></p>	<p>In keeping with the EPA Guidance note for Annual Environmental Report, Ashgrove have set targets, which are “demanding”. It should be noted that the targets set in the EMP are just “targets”. However, Ashgrove will endeavour to make every reasonable effort to achieve the set targets.</p> <p>To maintain a well maintained site, site boundary and access roads while removing extraneous material from causing visual intrusion and possibly becoming an attraction for vermin.</p>
<p><b>Programme for achieving Target</b></p>	<p>Task 1:- Evaluate regularly the situation with respect to litter. It may be windblown or illegally dumped.</p> <p>Task 2:- Nominate litter patrol personnel.</p> <p>Task 3:- Compile relevant paperwork records</p> <p>Task 4:- Discuss abatement measures with other adjoining facilities that may be a source for some of the litter.</p> <p>Task 5:- Check quality of all netting and replace if necessary.</p> <p>Task 6:- Check Integrity of fencing, and also monitor the growth of trees as this provides screening. If necessary, feed trees with phostrogen to encourage growth and speed up maturing process.</p>
<p><b>Responsibility for Project:-</b></p>	<p>The Waste Controller is responsible for the implementation of this program. The Environmental Manager will assist with Tasks 1, 4 and 5.</p>

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												

**Objective 6:- Reduce emissions from the development**

<p><b>Advantages to implement objective:-</b></p>	<p>Condition 6.2 of the Waste Licence requires that all the activities shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.</p>
<p><b>Target:-</b></p>	<p>In keeping with the EPA Guidance note for Annual Environmental Report, Ashgrove have set targets, which are “demanding”. It should be noted that the targets set in the EMP are just “targets”. However, Ashgrove will endeavour to make every reasonable effort to achieve the set targets.</p> <p>To curb emissions to well within the limits prescribed by the waste licence. To remove any possibility of future emissions being released and having an adverse environmental impact.</p>
<p><b>Programme for achieving Target</b></p>	<p>Task 1 – evaluate and compare current monitoring results with licence limits and current monitoring results with licence limits and current handling figures of the facility.</p> <p>Task 2 – Identify any problems areas that exist with adverse emissions to the environment.</p> <p>Task 3 – Identify sources / processes that may lead to problematic results.</p> <p>Task 4:- Evaluate the effectiveness of all emission abatement equipment currently installed.</p> <p>Task 5 :- Discuss any findings with the Agency</p> <p>Task 6:- Install, subject to approval from the Agency, any abatement equipment deemed necessary by the Agency.</p> <p>Task 7:- Look into possibility of installation of an electrical generator and power machinery from this to reduce source noise emissions.</p>
<p><b>Responsibility for Project:-</b></p>	<p>The Environmental Manager will have responsibility for this project. Any implementations will be overseen by the Facility Manager subsequent to being approved by the Agency.</p>

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												

**Objective 7:- Reduce instances of hazardous waste coming to the facility**

<p><b>Advantages to implement objective:-</b></p>	<p>Condition 1.6 of the Waste Licence states that “ <i>No hazardous wastes or liquid wastes shall be accepted at the facility</i>”.</p> <p><b>Ashgrove Recycling &amp; Waste Management does not wish to allow hazardous waste streams enter the facility.</b></p>
<p><b>Target:-</b></p>	<p>In keeping with the EPA Guidance note for Annual Environmental Report, Ashgrove have set targets, which are “demanding”. It should be noted that the targets set in the EMP are just “targets”. However, Ashgrove will endeavour to make every reasonable effort to achieve the set targets.</p> <p>To reduce instances of hazardous material arriving at the facility.</p>
<p><b>Programme for achieving Target</b></p>	<p>Task 1 – Evaluate current situation with regard to level hazardous waste arriving at the facility.</p> <p>Task 2 – Identify sources &amp; Problematic customers where the majority of the identified waste streams come from.</p> <p>Task 3 – Compile Report on findings (Sources of hazardous waste).</p> <p>Task 4:- Arrange meetings with problematic customers to discuss situation and findings.</p> <p>Task 5:- Assist customer with approach to removing problematic waste from Ashgrove Recycling Receptacles.</p> <p>Task 6:- Review effectiveness of the above regularly.</p>
<p><b>Responsibility for Project:-</b></p>	<p>The Facility Manager is responsible for the implementation of this project. The waste controller will be responsible for communications with customers. The waste inspector will assist with inspection and identification of customers who offend regularly. Environmental Manager will advise in accordance with the Waste Licence Regulations.</p>

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												

**Objective 8:- Eliminate the possibility of adverse spillages**

<p><b>Advantages to implement objective:-</b></p>	<p>To eliminate the ingress of oil, etc to sewers in the event of a spillage. Also this will help the ELV;s not being exceeded.</p>
<p><b>Target:-</b></p>	<p>In keeping with the EPA Guidance note for Annual Environmental Report, Ashgrove have set targets, which are “demanding”. It should be noted that the targets set in the EMP are just “targets”. However, Ashgrove will endeavour to make every reasonable effort to achieve the set targets.</p>
<p><b>Programme for achieving Target</b></p>	<p>To reduce instances of spillages occurring at the facility, and prevent the ingress of spilt liquids into drainage system.</p> <p>Task 1:- Evaluate current situation with regard to level of spillages.</p> <p>Task 2: – Obtain quotes for suitable spillage kits and containment/bunded systems.</p> <p>Task 3: – Conduct Staff Training and also issue copies of procedure for cleaning up spillages.</p> <p>Task 4:- Review effectiveness of the above regularly.</p>
<p><b>Responsibility for Project:-</b></p>	<p>The Facility Manager is responsible for the implementation of this project. The waste controller will be responsible for communications with customers. The waste inspector will assist with inspection and identification of customers who offend regularly. Environmental Manager will advise in accordance with the Waste Licence Regulations.</p>

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												

**Objective 9:- Reduce vehicular emissions**

<p><b>Advantages to implement objective:-</b></p>	<p>Vehicular emissions are harmful to the environment. As the majority of movements by the skip truck fleet are within Cork it will be beneficial in reducing contribution to air pollution in the city. Also, unsightly “smoky” vehicles will not help public image of recycling company.</p>
<p><b>Target:-</b></p>	<p>To maintain all combustion driven machinery in good working order to prevent unnecessary emissions to the atmosphere.</p>
<p><b>Programme for achieving Target</b></p>	<p>Task 1 – Compile list with detailed information on all vehicles and machinery with combustion engines at the facility.</p> <p>Task 2 – Identify any necessary repair work that should be carried out.</p> <p>Task 3 – Put all road vehicles through the roadworthy test</p> <p>Task 4:- Carryout regular servicing of all machinery and vehicles.</p> <p>Task 5:- Create a file for all service records.</p> <p>Task 6:- Use of Fuel Oil Catalyst to increase efficiency and reduce emissions</p> <p>Task 7:- Investigate if it is possible to have all of Ashgroves fleet to be powered on bio fuel within a three year period.</p>
<p><b>Responsibility for Project:-</b></p>	<p>The Mechanic is responsible for the implementation of this project. The Maintenance Manager will carryout all evaluations and works required. The Environmental Manager will assist in carrying out feasibility study to see the viability in using bio fuels.</p>

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												
Task 7												

**Objective 10:- Replacing of all Lighting**

<b>Advantages to implement objective:-</b>	The replacement of all light fitting/bulbs with low energy fixtures/bulbs will reduce the electrical consumption of the company, which in turn will reduce the amount of electricity that needs to be generated.
<b>Target:-</b>	To have all fixtures/ bulbs replaced within 2 years.
<b>Programme for achieving Target</b>	<p>Task 1 – Compile list with detailed information on all types of light fittings, bulb types in use</p> <p>Task 2 – Identify the low energy version type that can replace them.</p> <p>Task 3 – Compile a list of all low energy fittings and bulbs required and obtain quotations from Electrical suppliers.</p> <p>Task 4:- Carryout a Bill of Quantities for the work required changing all fittings by a qualified electrician and obtaining a quotation.</p> <p>Task 5:- Purchases the fixtures and bulbs.</p> <p>Task 6:- Employee a qualified electrician to replace all the fittings</p> <p>Task 7:- Replace all bulbs by a competent member of staff</p>
<b>Responsibility for Project:-</b>	The Environmental Manager will be responsible in carrying out the survey and compiling a list of the required fixtures and fittings. The facility manager will be responsible in the pricing, organisation and supervision of all works done.

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												
Task 6												
Task 7												

### Objective 11:- Construction of Permanent Offices

<b>Advantages to implement objective:-</b>	The replacement temporary offices/canteen with newly constructed offices and canteen. This will help to reduce energy costs by incorporating a better quality of living within the office and canteen by means of insulation and cost effective heating system etc.
<b>Target:-</b>	To have the design and approval of the construction of office within the next 2 years, and to have it constructed within 5 years.
<b>Programme for achieving Target</b>	<p>Task 1 – Draw up design of the offices/canteen</p> <p>Task 2 – Meet with the Local Authorities and discuss planning issues.</p> <p>Task 3 – Complete a planning application and submit it and wait for approval.</p> <p>Task 4 - Compile a Bill of Quantities for the construction and obtain quotations.</p> <p>Task 5 – Employee a construction team to construct the building to the specification.</p>
<b>Responsibility for Project:-</b>	The Environmental Manager will be responsible in carrying out the drawings and planning phases. The facility manager will be responsible in the pricing, organisation and supervision of all works done.

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												



**Objective 12:- Replacement of all motors and appliances with energy efficient ones**

<b>Advantages to implement objective:-</b>	The replacement of all inefficient motors and appliances with more efficient and lower energy ones. This will help to reduce energy costs by using more low energy motors/appliances.
<b>Target:-</b>	To have replaced all motors and appliance with low energy and efficient ones where possible
<b>Programme for achieving Target</b>	<p>Task 1 – Compile a list of all electrical motors and appliance that are used on site.</p> <p>Task 2 – Research into low energy alternatives.</p> <p>Task 3 –Draw up a list of the alternatives and obtain quotations, check the feasibility of changing all of them.</p> <p>Task 4 - Compile a Bill of Quantities for the replacement of them and obtain quotations.</p> <p>Task 5 – Employee a qualified person to replace them.</p>
<b>Responsibility for Project:-</b>	The Environmental Manager will be responsible in carrying out the research phases. The facility manager will be responsible in the pricing, organisation and supervision of all works done.

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												

**Objective 13:- Reduction of Noise Nuisance**

<p><b>Advantages to implement objective:-</b></p>	<p>By reducing noise nuisance by the housing of all plant will improve the sites and adjoining areas quality of life.</p>
<p><b>Target:-</b></p>	<p>To have the design and approval of the construction of any sheds within the next 2 years, and to have it constructed within 5 years.</p>
<p><b>Programme for achieving Target</b></p>	<p>Task 1 – Draw up design of the sheds</p> <p>Task 2 – Meet with the Local Authorities and discuss planning issues.</p> <p>Task 3 –Complete a planning application and submit it and wait for approval.</p> <p>Task 4 - Compile a Bill of Quantities for the construction and obtain quotations.</p> <p>Task 5 – Employee a construction team to construct the building to the specification.</p>
<p><b>Responsibility for Project:-</b></p>	<p>The Environmental Manager will be responsible in carrying out the drawings and planning phases. The facility manager will be responsible in the pricing, organisation and supervision of all works done.</p>

2009	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1												
Task 2												
Task 3												
Task 4												
Task 5												

**Benefits Associated with EMS Implementation**

**The initial drivers, which influenced the scope and focus of EMS development, reflect anticipation of the following benefits:**

- An ability to demonstrate due diligence, and therefore operational confidence, more effectively.
- Improved morale by empowering employees to take ownership of the environmental aspects of their jobs.
- Heightened environmental awareness
- More effective emergency procedures and
- A platform for implementation of green procurement
- Improved communication within and between staff, management, , public, and regulators.
- Improved corporate image—especially within the community.
- Provides a system for continual improvement.
- It can also be seen as a system of continual improvement.

### **Progress Review on Targets & Objectives for 2008**

The following has been done in 2008 as part fulfilment to achieve the objectives and targets set out.

- The area of concreting has increased since 2007 with two more areas of total 1252 m<sup>2</sup>.
- The electrical usage has increased by more than the 10%, this is due to the fact that extra electrical equipment was being used.
- The use of fuel catalyst to reduce emissions and improve efficiency of vehicles.
- A full energy audit took place this year and proposals are taking place to reduce the energy consumption.
- The wheel wash has been installed on site and is fully operational and is a great success.
- Hazardous waste arriving at facility has been negligible due to continual correspondence with customers etc.

#### **Complaints:-**

No public complaints were received at the facility.

#### **Review of Nuisance Controls:-**

Nuisance controls are always being reviewed, and it seems the current nuisance controls employed at the facility are adequate at present. However, if the facility becomes adversely effected by certain nuisances, then a review will be carried out and a new system to be put in place.

### Energy & Water Consumption

#### Energy Consumption 2007

Type	Consumption and Unit
Electricity	49340 kW/h
Diesel Fuel - White	64,318 Gallons

#### Foul Water 2007

The volume of foul water discharged to public sewer for the calendar year of 2007 amounted to 3147m<sup>3</sup>.

---

#### Energy Consumption 2008

Type	Consumption and Unit
Electricity	52148 kW/h
Diesel Fuel – White & Green	69 167.271 Gallons

#### Foul Water 2008

The volume of foul water discharged to public sewer for the calendar year of 2008 amounted to 2912m<sup>3</sup>.

## **Bunded Tank & Underground Drainage Integrity Testing**

### **Bunded Tank:-**

Testing of the fuel bunded tanks, namely the Fuel Flask Model 1000 – UN 1202 and Fuel Flask Model 2000 FF was carried out by Mescal & Associates, Pollution Control Engineers. The bund integrity was observed and the water level was checked on two consecutive days (17 – 18 th December 2008) and the level was unchanged. The conclusion was the bund is holding its contents and is watertight.

### **Drainage Integrity Testing:-**

Pipeline hydrostatic testing of both surface water and foul water was undertaken by Mescal & Associates, Pollution Control Engineers. The testing was carried out in January 2008 and all systems demonstrated to be watertight.

**Financial Provision:-**

The licensee will undertake two different types of financial provision mechanisms to underwrite known and unknown liabilities. A financial credit rating was obtained from an independent company and Ashgrove Plant scored exceptionally high in all financial checks.

Insurance cover for environmental pollution is covered by our Insurance Policy, and a financial bond of €50,000 in favour of the Environmental Protection Agency is guaranteed by Bank of Ireland, Patricks Bridge, Cork.

**Management and Staffing Structure**

**Directors:-** Jim Collins Snr  
Pauline Collins

**Facility Manager:-** Mr. Jim Collins Jnr

**Environmental Manager:-** Mr. Trevor Parry

**HR Manager/ Accounts Manager :-** Mrs. Susan Wallace

**Weighbridge/Dispatch Manager:-** Mr. Alan Meade

**Yard Manager:-** Mr Ger O'Donovan

## **AER / PRTR Emissions Data**



Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment		Address of Recoverer / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery /
						M/C/E	Method Used				
Within the Country	20 03 01	No	6766.0	Residual Waste	D1	M	Weighed	Offsite in Ireland	Gortadroma Landfill W0017/03	Gortadroma, Ballyahill, Co. Limerick	
Within the Country	20 03 99	No	7544.0	Mixed Dry Recyclables Paper & Cardboard Packaging	R3	M	Weighed	Offsite in Ireland	Thorntons Recycling W0044/02	Killeen Road, Dublin 4	
Within the Country	15 01 01	No	1435.0	Paper & Cardboard	R3	M	Weighed	Offsite in Ireland	Cork Recycling CK(S)263/05	Lenaghmore, Togher, Co. Cork	
Within the Country	20 01 01	No	55.0	Municipal Sources	R3	M	Weighed	Onsite in Ireland	Cork Recycling CK(S)263/05	Lenaghmore, Togher, Co. Cork	
Within the Country	15 01 02	No	318.0	plastic packaging	R5	M	Weighed	Offsite in Ireland	Thorntons Recycling W0044/02	Killeen Road, Dublin 4	
Within the Country	17 02 03	No	122.0	plastic C&D	R5	M	Weighed	Offsite in Ireland	Bernard O'Brien CK(S)437/07	Ballinvrinsig, Waterfall, Co.Cork	
Within the Country	15 01 07	No	1632.0	Glass Packaging	R5	M	Weighed	Offsite in Ireland	Clare Recycling 015/05/WPT/CL	Tullagower Quarries, Co. Clare.	
Within the Country	15 01 03	No	2215.0	Timber Packaging	R1	M	Weighed	Offsite in Ireland	Wayerhaeuser p0027/02	Clonmel, Co Tipperary	
Within the Country	17 02 01	No	561.0	Wood C&D	R3	M	Weighed	Offsite in Ireland	Eirebloc CK(S) 503/07	Lissarda, Co. Cork	
Within the Country	17 02 01	No	1574.0	Wood C&D	R1	M	Weighed	Offsite in Ireland	Wayerhaeuser p0027/02	Lissarda, Co. Cork	
Within the Country	15 01 04	No	81.0	Ferrous metal packaging	R4	M	Weighed	Offsite in Ireland	Thorntons Recycling W0044/02	Killeen Road, Dublin 4	
Within the Country	15 01 04	No	37.0	Aluminium Packaging	R4	M	Weighed	Offsite in Ireland	Thorntons Recycling W0044/02	Killeen Road, Dublin 4	
Within the Country	17 04 07	No	1659.0	Mixed Metals	R4	M	Weighed	Offsite in Ireland	Cork Metal CK (S) 491/07	Dublin Hill, Co. Cork	
Within the Country	17 04 11	No	12.0	Cable from C&D	R4	M	Weighed	Offsite in Ireland	National Recycling 06/07	Churchfield Industrial Estate, Cork	
Within the Country	17 04 02	No	30.0	Aluminium	R4	M	Weighed	Offsite in Ireland	National Recycling 06/07	Churchfield Industrial Estate, Cork	
Within the Country	17 08 02	No	624.0	Gypsum	R5	M	Weighed	Offsite in Ireland	Sandyhills Environmental Services Ltd WPT 112	St Margarets, Co. Dublin	
Within the Country	17 01 07	No	7707.0	Mixture of conc, bricks & Tiles	R10	M	Weighed	Offsite in Ireland	Mallow Contracts Ltd CKN 277/05	Mourneabbey, Co. Cork	
Within the Country	17 05 04	No	17500.0	Soil and Stone	R10	M	Weighed	Offsite in Ireland	Mallow Contracts Ltd CKN 277/05	Mourneabbey, Co. Cork	