



**ANNUAL ENVIRONMENTAL REPORT**  
**GREENSTAR ENVIRONMENTAL SERVICES LIMITED**  
**MATERIALS RECOVERY FACILITY**  
**SIX CROSS ROADS BUSINESS PARK**  
**WATERFORD**  
**LICENCE NO. W0177-03**  
**JANUARY 2013 – DECEMBER 2013**

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# 1. INTRODUCTION

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This is the 2013 Annual Environmental Report (AER) for the Greenstar Environmental Services Ltd. (GES), Materials Recovery Facility (MRF) at Six Cross Roads Business Park, Waterford (W0177-03) and covers the reporting period January 2013 to December 2013. During the reporting period, GES was in receivership but ownership of the company and transfer of the licence to Starrus Eco Holdings Ltd (trading as Greenstar) was completed in March 2014.

The content is based on Schedule F of the Waste Licence and the report format follows guidelines set in the “Guidance Note for Annual Environmental Report” issued by the Environmental Protection Agency (Agency)<sup>1</sup>. Cognisance was also taken of the Agency AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013<sup>2</sup>.

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<sup>1</sup> EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

<sup>2</sup> EPA (Environmental Protection Agency) 2012 Draft AER Guidance Document

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## 2. SITE DESCRIPTION

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### 2.1 Site Location and Layout

The subject site is located at Carriganard, Six Cross Roads approximately 3.5 km southwest of Waterford City Centre. It is in an industrial area on the outskirts of the City. The area to the west of the facility is mainly farmland. The nearest residential area is the Ballybeg housing estate, which is approximately 500 m to the north. The facility encompasses approximately 9,300 m<sup>2</sup> and is accessed by a county road (Green Road) off the N25 National Primary Route. This county road, which forms the western site boundary, is a cul-de-sac which is used solely for access to the facility. The southern and eastern boundaries are formed by the Six Cross Roads Business Park and the northern boundary by the closed Waterford City Compost Facility.

There are two waste processing buildings. The Main Building houses the offices and Commercial and Industrial waste (C&I) recycling activities and bulk waste transfer. The Lean-To, which is to the west of the Main Building, is used for covered timber, green waste and bulky waste processing and additional bale storage. The open yard areas are paved and are used for external waste storage bays (C&D, glass, and metals), skip storage, truck parking and a vehicle washing area.

### 2.2 Waste Management Activities

The facility is licensed to accept and process 80,000 tonnes of waste per annum, comprising household waste, construction and demolition waste (C&D) and commercial and industrial waste (C&I).

#### 2.2.1 Waste Types & Processes

The facility is licensed to accept the following waste types and quantities, as specified in Schedule A of the licence: -

- Household (25,000 tonnes)
- Commercial & Industrial (70,000 tonnes)
- Construction & Demolition (5,000 tonnes)

No hazardous wastes are accepted. The maximum amount of each waste type accepted, may be altered with the prior agreement of the Agency as long as the total maximum tonnage is not exceeded.

The key processes carried out at the facility include: -

- Segregation of recyclable materials (paper, cardboards, plastic, wood, metals, glass);
- Recycling of hard plastics through granulation;
- Bulking up of Municipal Solid Waste;
- Segregation and bulking of C&D waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets;

#### *Household Waste*

Residual, or black bin household waste, arrives in refuse collection vehicles and is transferred from the vehicles into large bulk transporters for consignment to an appropriately licensed landfill. Source segregated household dry recyclables are baled and stored prior to transfer to off-site permitted/licensed recycling facilities.

#### *Commercial and Industrial Waste*

Both mixed and segregated commercial waste is collected from commercial sources. Commercial waste containing recyclable material (paper, cardboard, glass, metal, green waste and wood) is delivered to the facility both by permitted third party hauliers and by GES vehicles. Plastic, card and paper are baled and stored prior to transfer to a suitable permitted/licensed off-site recycling outlet. Biodegradable wastes suitable for composting which is accepted at the facility are sent to an offsite composting facility. The remaining non-recyclable material is bulked and sent to appropriately licensed landfills. Shredding of hard plastics (PVC and Polypropylene) takes place on site for transport as raw materials for plastic goods manufacturers.

#### *C&D Waste*

Waste loads include mixed construction and demolition wastes and soil and stone. The material arrives in skips of varying sizes. The loads are inspected and then processed. The majority of the incoming C&D material is recovered and sent off-site either for re-use, or recycling. The non-recyclable materials are transferred to a licensed landfill.

### 2.2.2 Plant List

A list of the plant in use at the facility is given in Table 2.1. The plant provides 100% duty and 50% standby for waste processing.

**Table 2.1 Plant List –**

<b>No.</b>	<b>Plant</b>	<b>Model</b>	<b>Operational Capacity tpd</b>	<b>Standby Capacity tpd</b>
1	Loading Shovel	Volvo L90F	200	120
2	Excavating Grab	Caterpillar 312	150	100
3	Fork Lift	Jungheinric	150	100

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### 3. EMISSION MONITORING

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The monitoring specified in the licence includes surface water, wastewater, groundwater, dust and noise monitoring. The monitoring locations are shown on Figure 3.1. The monitoring results are included in reports submitted to the Agency at quarterly intervals and an overview of the monitoring completed in 2013 is presented in this Section.

#### 3.1 Surface Water Monitoring

The facility's surface water drainage system collects run-off from paved areas and roof rainwater and discharges at separate locations to a culverted stream serving the Business Park.

The original agreed monitoring locations were SW-1, SW-2, SW-3 and SW-4. In June 2012 the Agency agreed to replace SW-1 and 2 with SW-5, which is the point at which the combined discharge point to the stream for the storm sewers from the east and south of the site and the sewers that take run-off from the Main Recycling Building and Offices. SW-3 is downstream of an oil interceptor on the drain that takes runoff from the western yard, and is a separate discharge point. SW-4 is at the discharge point to the stream for run-off roof of the Lean To in the north western section of the site. The locations are shown on Figure 3.1.

The monitoring results are shown on Tables 3.1 to 3.6. Due to dry conditions in some months no surface water samples were obtained. The results include the proposed warning and action levels developed by GES in Q1 2010. There was just one exceedance of the warning for ammonia in October 2013 at SW-3, but no breach of the action levels throughout 2013.

There was significant focus on materials storage and drain maintenance at the facility during 2012 and 2013 which has led to an improvement in the surface water discharge quality over this time. Overall results for surface water at each monitoring location have markedly improved between 2011 and 2013.

**Table 3.1 Surface Water Monitoring Results 30<sup>th</sup> January 2013**

Parameter	Units	SW-3	SW-4	SW-5	Warning Levels	Action Level
Ammonia	mg/l	0.19	0.33	0.23	2.0	4.4
Conductivity	mS/cm	0.327	0.065	0.279	0.466	0.774



**Table 3.2 Surface Water Monitoring Results 22<sup>nd</sup> March 2013**

Parameter	Units	SW-3	SW-4	SW-5	Warning Levels	Action Level
Ammonia	mg/l	0.40	0.33	0.88	2.0	4.4
Conductivity	mS/cm	0.224	0.076	0.324	0.466	0.774

**Table 3.3 Surface Water Monitoring Results May 2013**

Parameter	Units	SW-3	SW-4	SW-5	Warning Levels	Action Level
Ammonia	mg/l	0.48	0.05	1.9	2.0	4.4
Conductivity	mS/cm	0.443	0.111	0.379	0.466	0.774

**Table 3.4 Surface Water Monitoring Results – July 2013**

Parameter	Units	SW-3	SW-4	SW-5	Warning Levels	Action Level
Ammonia	mg/l	0.42	1.15	2.0	2.0	4.4
Conductivity	mS/cm	0.489	0.028	0.417	0.466	0.774

**Table 3.5 Surface Water Monitoring Results – September 2013**

Parameter	Units	SW-3	SW-4	SW-5	Warning Levels	Action Level
Ammonia	mg/l	0.16	0.9	1.32	2.0	4.4
Conductivity	mS/cm	*	*	*	0.466	0.774

\*Erroneous Laboratory Result

**Table 3.6 Surface Water Monitoring Results – October 2013**

Parameter	Units	SW-3	SW-4	SW-5	Warning Levels	Action Level
Ammonia	mg/l	3.17	<1	<1	2.0	4.4
Conductivity	mS/cm	0.285	<0.132	0.191	0.466	0.774

### 3.2 Foul water Monitoring

The wastewater discharge (vehicle cleaning and run off from hard-standing at the entrance to the main recycling building) to the municipal sewer was monitored at quarterly intervals up to Q1 2013. The Agency issued a Technical Amendment (TA) of the licence in Q1 2013 allowing for an increase in the detergents ELV and the volume of waste water allowed to be discharged to the sewer. The TA also increased the monitoring frequency from quarterly to monthly. The wastewater passes through a petrol/oil interceptor before discharging to the Six Cross Roads Business Park sewer before ultimately connecting to the municipal sewer. Flow is measured using a continuous flow meter.

Due to an oversight no sample was collected in Q3 2013. It was not possible to collect representative samples of the waste water discharge in November or December 2013. The waste water generated within the Six Cross Roads Business Park is pumped to the municipal sewer. The pump broke down in late October/November and due to the layout of the system caused waste water to back up into the Greenstar system. Waste water was vacuum tankered to a wastewater treatment plant by the landlord of the Business Park while the pump was not operational.

The wastewater sampling is carried out at location FW-1, as shown on Figure 3.1. FW-1 is downstream of the interceptor and the continuous flow meter. The monitoring results are presented in Table 3.7, which also includes the emission limit values (ELV) set in the Licence. The results were all below the ELVs set for grab samples.

**Table 3.7** Foul water Monitoring Results 2013.

Parameter	Units	Q1	Q2	Q3	Q4	Emission Limit	Emission Limit (Grab Sample)*
pH	pH Units	6.22	6.68	-	7.02	6 – 9	6-9
BOD	mg/l	<1	303	-	223	400	480
COD	mg/l	646	400	-	740	1,100	1,320
Total Suspended Solids	mg/l	249	110	-	360	300	360
Oils, Fats & Greases	mg/l	<0.01	12	-	**	10	12
Surfactants (MBAS)	mg/l	1.0	0.057	-	**	30	36

\* Condition 4.1.2 (i) For parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value.

\*\*Glass bottle Damaged on route to Lab

### 3.3 Groundwater Monitoring

Groundwater monitoring is not specified in the licence, however monitoring is carried out annually at two monitoring wells (BH-1 and BH-3) as agreed with the Agency. BH-1 is off-site and up-gradient in the adjoining closed Waterford City Council Composting facility (W0234-01) and BH-3 is on-site as shown on Figure 3.1.

There are no emission limits or trigger levels set in the licence and so the results are compared to the Interim Guideline Values (IGV) on groundwater quality published by the Agency and the Groundwater Regulations Threshold Value (GTV), which were introduced in 2010 (S.I. 9 of 2010). The IGV represent typical background or unpolluted conditions; however levels higher than the IGV may occur naturally depending on the local geological and hydrogeological conditions. While the GTV are more appropriate for large scale abstraction wells used for potable supply, they can be used to assess the significance of contamination where present in non potable groundwater supplies. Because GTVs have not been established for all of the parameters monitored, the relevant IGV was used for comparative purposes.

The results are shown on Table 3.8 and indicate that there is no evidence that site activities are impacting on groundwater quality. The IGVs or GTVs were not exceeded at either location in April 2013 with the exception of ammonia at BH-3. At this level (0.38mg/l) the ammonia is not considered significant and was below the limit in November 2012. BOD, DRO, oils, fats and greases, DRO, aliphatic hydrocarbons and undecane were not detected in either well. The monitoring carried out in April 2013 showed that the groundwater quality is good.

High levels of suspended solids are present in each well. Based on the borehole logs, the well depths range from 22 to 27m bgl (meters below ground level). BH-1 is exclusively in the subsoils, while BH-3 straddles the subsoils and the bedrock, which is a siltstone. The subsoils in BH-1 are described as very fine grained alluvial deposits, while in BH-3 they are described as sand with small elements of clay. There is a gravel pack around the well pipe but no filter sock on the slotted section. Given the absence of a filter sock and the nature of the subsoils, it is not unexpected that suspended solids present in the groundwater are being drawn into the well pipe during purging. They are naturally occurring, are not indicative of contamination and are of no environmental significance.

**Table 3.8** Groundwater Monitoring Results – 17<sup>th</sup> April 2013

Parameter	Units	BH-1	BH-3	IGV	GTV
BOD	mg/l	<1	<1	-	-
Dissolved Oxygen	mg/l	6	8	NAC	-
Oils, Fats & Greases	mg/l	<0.01	<0.01	-	-
Total Phosphorus	mg/l	0.839	0.914	-	-
Ammoniacal Nitrogen	mg/l	0.04	0.38	0.12	0.065-0.175
Conductivity	mS/cm	0.637	0.515	1.000	1.875
DRO	mg/l	<0.01	<0.01	0.01	-
Aliphatic Hydrocarbons	mg/l	<0.01	<0.01	-	-
Undecane	mg/l	<0.01	<0.01	-	-
Total Suspended Solids	mg/l	3,137	7,536	-	-

### 3.4 Noise Monitoring

The annual noise survey was conducted in August 2013. The monitoring locations include three boundary locations (N1 – N3) and two off site noise sensitive locations (NS1 and NS2). The survey was conducted when the site was fully operational and confirmed that noise emissions fully complied with the licence and that the facility is not impacting negatively on the nearest sensitive receptors. A summary of the noise results is shown on Table 3.9.

**Table 3.9** Noise Monitoring Results 2013

Station	Time	L <sub>Aeq</sub> 30 min dB	L <sub>AF10</sub> 30 min dB	L <sub>AF90</sub> 30 min dB	Specific level* dB	Noise audible
N1	0953-1023	72	74	64	72	Greenstar plant on local yard and in nearest building continuously dominant, including granulator. No other noise audible.
N2	1026-1056	65	68	53	64	Intermittent truck and vehicle movements through Greenstar entrance and weighbridge area dominant. During lulls, plant and granulator in building audible. Frequent emissions from external activity at adjacent plant hire premises significant. No other noise audible.
N3	1101-1131	62	56	46	47	Greenstar plant movements almost continuously audible at low level. Road traffic to W and S also continuously audible and significant. Sporadic passing road traffic on access road dominant when present. Bird song/calls and aircraft.
NS1	1139-1209	55	57	44	<44	Greenstar emissions not specifically discernible in commercial noise slightly audible continuously from commercial estates to SE, which in turn is almost entirely masked by continuous road traffic audible at low level to S and SE. Intermittent local traffic dominant when present. Bird song/calls, aircraft and pedestrian voices.
NS2	1216-1246	64	69	45	<45	No emissions audible from Greenstar or 6CR business park. Frequent passing road traffic dominant. During lulls, distant traffic in several directions audible. Bird song/calls, aircraft and distant dog barking. Grass mower audible at low level at nearby sports pitch from 1243.

\*Specific level: Sound pressure level contribution considered attributable to facility, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, near field correction if applicable, and other parameters.

### 3.5 Dust Monitoring

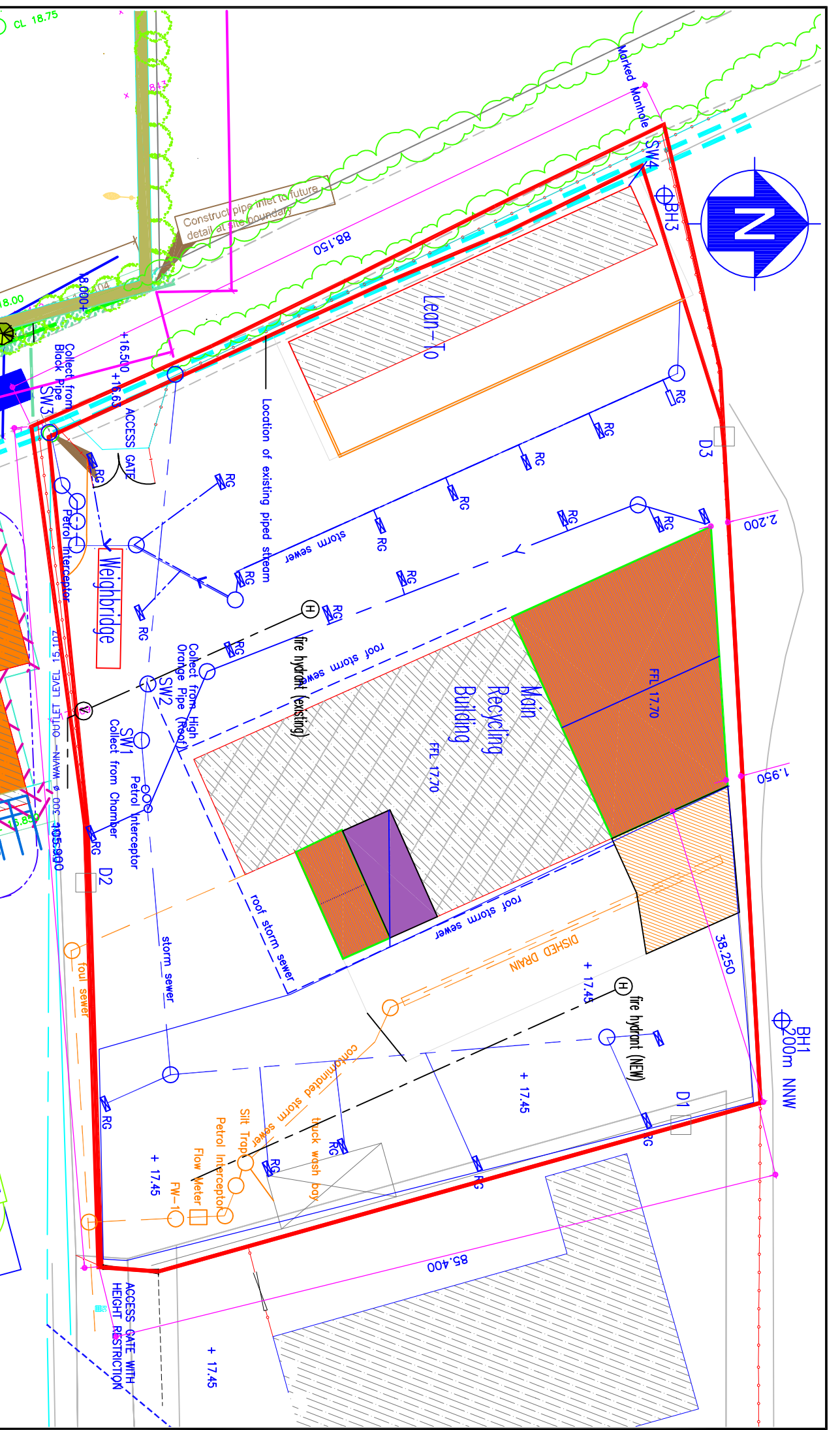
Dust monitoring was carried out on three occasions at three on-site locations (D1, D2 and D3) in June, August and September 2013. The results of the monitoring are included on Table 3.10.

The dust emission limit (350 mg/m<sup>2</sup>/day) was not exceeded. No complaints relating to dust were received from neighbouring premises during the reporting period.

**Table 3.10** Dust Monitoring Results 2013

<b>Dust Emission (mg/m<sup>2</sup>/day)</b>	<b>June</b>	<b>August</b>	<b>September</b>	<b>Emission Limit</b>
<b>Sample Location</b>	<b>2013</b>	<b>2013</b>	<b>2013</b>	<b>(mg/m<sup>2</sup>/day)</b>
<b>D1</b>	76.9	47.3	12.5	350
<b>D2</b>	21	49.4	26.6	350
<b>D3</b>	44.1	69.6	235.8	350

\* - Jar broken in transit to laboratory



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CLIENT	Greenstar Environmental Services
TITLE	Monitoring Locations – Waterford

details

FIGURE No.	3.1
SCALE	NTS
REV.	A

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## 4. SITE DEVELOPMENT WORKS

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### 4.1 Engineering Works

No engineering works were planned or carried out in 2013.

### 4.2 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period and in 2012.

**Table 4.1 Estimate of Resources Used On-Site in 2012 & 2013**

<b>Resources</b>	<b>Quantities 2013</b>	<b>Quantities 2012</b>
Diesel (green)	54,901 litres	60,602 litres
Electricity	7228 kwh	289,800 kWh Units
Hydraulic Oil	1250 litres	1,532 litres
AdBlu Diesel Additive	700 litres	1,400 litres
Mains Water	553,000 litres	331,000 litres
Odour Neutraliser	300 litres	400 litres

### 4.3 Bund Integrity Testing

Condition 3.11.5 of the licence requires that tank and bund testing be carried out at least once every three years. Integrity testing was carried out in October 2011 and the bunds, interceptors and drainage lines were passed fit for purpose. The reports are retained at the facility for Agency inspection.

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## **5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY**

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Table 5.1 shows the total quantities of waste received and consigned from the facility in 2013. Table 5.2 shows the quantities of waste received and consigned in previous years. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste list. A more detailed description of the wastes accepted and consigned is provided in the PRTR submission in Appendix 1.

The total quantity of waste received was 55,232 tonnes. The total waste consigned was 54,523 tonnes. Some wastes remained onsite at the end of the reporting period pending movement offsite in Q1 2014. All the wastes consigned went to authorised recovery and disposal facilities approved by the Agency.



**Table 5.1 Waste Received & Consigned 2013**

<b>EWC</b>	<b>Description</b>	<b>Waste In</b>	<b>Waste Out</b>
15 01 01	Segregated cardboard & paper packaging	4096	8,518
15 01 02	Segregated plastic packaging	2387	489
15 01 03	Segregated wood packaging	18	475
15 01 04	Segregated metal packaging - aluminium cans	7	18
15 01 05	Segregated tetrapacks	3	
15 01 06	Mixed Packaging	9655	
15 01 07	Glass packaging	558	770
17 02 01	Wood	3	
17 02 02	Glass	7	
17 02 03	Plastic	29	
17 08 02	Gypsum-based construction material e.g. Plasterboard	162	
17 09 04	Mixed C&D waste	1393	2168
19 08 05	Liquid Waste	4.2	
19 09 02	Interceptor Sludge	13	
19 12 07	Shredded Timber		276
19 12 09	Kitchen and Canteen Waste	8.68	
20 01 01	Paper & cardboard from municipal	1603	715
20 01 02	Glass from municipal sources	120	76
20 01 08	Commercial food waste	4879	909
20 01 11	Textile		0.6
20 01 38	Wood waste from municipal sources (e.g. furniture)	1,382	739
20 01 39	Plastic from municipal sources	109	2,010
20 01 40	Metals from municipal waste	123	162
20 02 01	Green Biodegradable Waste	45	82
20 03 01	Mixed residual waste	18925	29,521
20 03 03	Street-cleaning residues	1,641	1,397
20 03 07	Bulky Waste	8,012	6,197
<b>Total Received</b>		<b>55232</b>	
<b>Total Consigned</b>			<b>54,523</b>
<b>Recovery</b>			<b>43,092</b>
<b>Disposal</b>			<b>11,431</b>
<b>Recovery Rate</b>			<b>79%</b>

**Table 5.3 Waste Received & Consigned**

	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Total Received</b>	54,627.16	57,592.00	49,011	48,560	52,055
<b>Total Consigned</b>	54,531.76	58,231.15	48,120.34	47,574	52,212
<b>Total Recovered</b>	43,100.65	44,517.00	25,706.16	20,892	20,113
<b>Total Disposed</b>	11,431.11	13,075.00	22,414.18	26,682	32,099
<b>Recovery Rate</b>	79%	76%	53.42%	43.92%	38.52%

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## **6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS**

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### **6.1 Incidents**

There were no reportable incidents in 2013.

### **6.2 Register of Complaints**

GES maintains a register of complaints received at the facility offices. No complaints were received during the reporting period.

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## 7. ENVIRONMENTAL DEVELOPMENT & CONTROL

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### 7.1 Environmental Management Programme Report

GES have implemented an Integrated Management System (IMS) in accordance with the requirements of Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 and International Standard Organisation (ISO) 14001:2004 in order to manage the Health, Safety and Environmental performance of their business and to control health and safety risk and to minimise their environmental aspects and impacts.

The IMS has been developed for the achievement of continual improvement taking into account the requirements of the Waste Licence Conditions. GES has prepared and effectively implement documented procedures and instructions in accordance with the requirements of both the OHSAS 18001:2007 and ISO 14001:2004. The facility is accredited to both standards.

The schedule of Objectives and Targets, including their status for 2013 (Table 7.1), as well as the proposed Objectives and Targets for 2014 (Table 7.2) are presented below. An index of procedures used at the facility is included in Appendix 2.

#### 7.1.1 Site Management Structure

Management and Staffing structure: -

**Name:** Aidan Shanahan

**Responsibility:** General Manager, South East

**Experience:** Over 10 years experience waste management experience; has completed the FÁS waste management course.

**Name:** Tom Walsh

**Responsibility:** Operations Manager

**Experience:** Over 11 years experience waste management experience; has completed the FÁS waste management course.

**Name:** Ivan Cummins

**Responsibility:** Yard Supervisor

**Experience:** 28 years experience waste management experience.

### 7.1.2 *Staff Training*

Staff training carried out during the year included mainly safety training as well as forklift training and CPC training. Details on staff training are retained on the company's electronic Training Management System (TMS).

## **7.2 Environmental Management Programme**

### 7.2.1 *Schedule of Objectives 2013*

The objectives achieved during this reporting period are outlined in Table 7.1.

### 7.2.2 *Schedule of Objectives 2014*

The schedule of targets and objectives for 2014 are presented in Table 7.2.

## **7.3 Communications Programme**

GES are committed to setting the standard in waste management and ensuring environmental compliance in all operations. In addition, GES's Environmental, Health & Safety Policy makes a specific commitment to ensure that this policy and environmental records are available to the public and interested parties.

To this end GES has drawn up a Communications Programme, which details how members of the public are facilitated in accessing and viewing environmental information at the facility. Members of the public who wish to inspect these files may do so at any reasonable time by making an appointment with the Operations Manager using the telephone number posted on the main facility entrance sign.

## **7.4 Report Financial Provision**

A Decommissioning Management Plan (DMP) and Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) were submitted to the Agency in 2013 as part of the transfer of the licence which occurred in Q1 2014. Both the DMP and ELRA have been approved by the Agency.

The facility has an Integrated Management System (IMS) in place and the site has achieved external accreditation for its implementation of ISO 14001 and OHSAS 18001, environmental and health and safety management systems. Effective implementation of these systems is the most appropriate way to ensure that mitigation measures achieve the required risk reduction on site. The IMS serves as a guidance document for facility staff and describes operational

control and management practices that are applied at the facility. The IMS is designed to ensure that management of site activities complies with regulatory requirements and best practice. The IMS includes a detailed Emergency Response Procedure which sets out the steps to be taken in the event of an incident at the facility with the potential to cause environmental damage. Greenstar also implements a comprehensive monitoring programme which will highlight any potential environmental incidents with the potential to cause environmental damage.

## **7.5 Nuisance Controls**

GES has contracted a vermin control company to carry out nuisance control at the facility. Prevent a Pest provide pest control at the facility and also provide for the treatment of insects at the facility if necessary. Daily litter picks and road-sweeping are carried out by yard operators during the course of their daily duties. An odour control system is in place at the facility which can be operated automatically or manually by the Environmental Officer and Operations Supervisor as needed. A site inspection is carried out daily and recorded on the facilities inspection log which is controlled as part of the current Integrated Management System.

## **7.6 Wastewater Volumes**

The volume of wastewater generated during the reporting period was estimated to be 1,056.25 m<sup>3</sup>. In Q4 2013 the wastewater flow meter was affected by backwash associated with the malfunction of the Business Park sewer pump. The annual wastewater figure is therefore an estimate based on the actual flow readings from January to September 2013.

**Table 7.1 Objectives and Targets for 2013 –**

<b>No</b>	<b>Objective</b>	<b>Target</b>	<b>Timescale</b>	<b>STATUS</b>
1	<b>Awareness and Training</b>	Continue to ensure that appropriate training is carried out specific to all site personnel as per the Company's established Training Matrix.	Q1-Q4 2013	Ongoing
2	<b>Energy &amp; Resource Consumption</b>	Continue to summarise energy and resource usage on a quarterly basis with a view to reducing consumption	Q1-Q4 2013	Ongoing
3	<b>Review and Assess the Effectiveness of Nuisance Control Procedures</b>	Continually review and assess all nuisance control procedures to minimise impact on the surrounding area.	Q1-Q4 2013	Ongoing
4	<b>Pollution Prevention</b>	Strive to ensure that emissions comply with the licence limits and investigate any exceedances of emission limit values.	Q1-Q4 2013	Ongoing
5	<b>Environmental Monitoring</b>	Continue to review the surface water monitoring results to ensure they do not increase. Propose revised trigger levels for ammonia and conductivity for surface water monitoring	Q1-Q4 2013	Ongoing
5	<b>Waste Storage</b>	Review waste wood processing & storage practices taking account of the recent Agency Position Paper on the Management of Wood Waste	Q2 2013	Complete
6	<b>Odour Management</b>	Compile an Odour Management Plan for the facility and include it on the training matrix referred to in Objective 1	Q2 2013	Ongoing
7	<b>Financial Provision</b>	Propose to complete an Environmental Liability Risk Assessment and Decommissioning Plan.	Q1-Q4 2013	Complete

**Table 7.2 Schedule of Objective and Targets 2014 –**

<b>No.</b>	<b>Objective</b>	<b>Target</b>	<b>Timescale</b>	<b>Responsibility</b>
1	<b>Development and adoption of Fire Prevention Procedure at the facility</b>	Reduce risk of fire and enable early detection	<b>Q2 2014</b>	<b>Site Management/EHS</b>
2	<b>Review of Emergency Response Plan to incorporate fire prevention procedure and new structure</b>	Revision of Plan and additional training for site personnel	<b>Q2 2014</b>	<b>Site Management/EHS</b>
3	<b>Achieve re-certification to ISO 14001 and OHSAS 18001 standard</b>	3 year certification period expires in 2014. The facility requires re-certification.	<b>Q3/Q4 2014</b>	<b>Site Management/EHS</b>
4	<b>Develop and maintain traffic management plan at the facility</b>	Review of all on-site traffic management	<b>Q2/Q3 2014</b>	<b>Site Management/EHS</b>
5	<b>Environmental Training of Facility Staff</b>	Update training presentation and ensure training of key managerial staff	<b>Q2/Q3 2014</b>	<b>Site Management/EHS</b>
6	<b>Site Signage</b>	Facility Notice Boards to be replaced to reflect new ownership	<b>Q1 2014</b>	<b>Site Management/EHS</b>
7	<b>Energy &amp; Resource Consumption</b>	Continue to summarise energy and resource usage on a quarterly basis with a view to reducing consumption	<b>Ongoing</b>	<b>Site Management/EHS</b>
8	<b>Review and Assess the Effectiveness of Nuisance Control Procedures</b>	Continually review and assess all nuisance control procedures to minimise impact on the surrounding area.	<b>Ongoing</b>	<b>Site Management/EHS</b>
9	<b>Pollution Prevention</b>	Strive to ensure that emissions comply with the licence limits and investigate any exceedances of emission limit values.	<b>Ongoing</b>	<b>Site Management/EHS</b>
10	<b>Site Security</b>	Installation of electronic barrier system at site entrance for site security purposes	<b>Q2 2014</b>	Site Management/EHS
11	<b>Ensure Impermeable Hardstanding</b>	Maintenance and repair of site surfaces	<b>Q2 2014</b>	Site Management/EHS
12	<b>Bund &amp; Tank Testing</b>	Integrity Testing of all underground tanks and pipelines	<b>Q1 2014</b>	Site Management/EHS



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## **8. OTHER REPORTS**

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### **8.1 European Pollutant Release and Transfer Register Regulation**

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 GES are required to submit information annually to the Agency. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 1.

# **APPENDIX 1**

European Pollutant Release and Transfer Register



Environmental Protection Agency

[Guidance to completing the PRTR workbook](#)

# AER Returns Workbook

Version 1.1.18

<b>REFERENCE YEAR</b>	2013
-----------------------	------

## 1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	
PRTR Identification Number	W0177
Licence Number	W0177-03

### Waste or IPPC Classes of Activity

No.	class_name
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
Address 1	Carrignard
Address 2	Six Cross Roads
Address 3	Business Park
Address 4	Waterford City
	Waterford
Country	Ireland
Coordinates of Location	-7.14684 52.2345
River Basin District	IESE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
<b>AER Returns Contact Name</b>	Malcolm Dowling
<b>AER Returns Contact Email Address</b>	malcolm.dowling@greenstar.ie
<b>AER Returns Contact Position</b>	Group Compliance Manager
<b>AER Returns Contact Telephone Number</b>	012947976
<b>AER Returns Contact Mobile Phone Number</b>	
<b>AER Returns Contact Fax Number</b>	
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0
<b>Number of Operating Hours in Year</b>	0
<b>Number of Employees</b>	10
<b>User Feedback/Comments</b>	In releases to wastewater section some levels were greater than 50% higher than last year. As the samples are grab samples there can be a variation in concentrations throughout the year. All ELVs were complied with during the year at the discharge point.
<b>Web Address</b>	

## 2. PRTR CLASS ACTIVITIES

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

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

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

## 4. WASTE IMPORTED/ACCEPTED ONTO SITE

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

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	
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This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0177 | Facility Name : | Filename : W0177\_2013.xls | Return Year : 2013 |

08/04/2014 12:01

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

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

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

**SECTION B : REMAINING PRTR POLLUTANTS**

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

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

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

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

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

**Additional Data Requested from Landfill operators**

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

Landfill:	0				
Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour
	Total estimated methane generation (as per site model)	0.0			N/A
	Methane flared	0.0			0.0 (Total Flaring Capacity)
	Methane utilised in engine/s	0.0			0.0 (Total Utilising Capacity)
	Net methane emission (as reported in Section A above)	0.0			N/A

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

| PRTR# : W0177 | Facility Name : | Filename : W0177\_2013.xls | Return Year : 2013 |

08/04/2014 12:03

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

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

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

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

**SECTION B : REMAINING PRTR POLLUTANTS**

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

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

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

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

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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0177 | Facility Name : | Filename : W0177\_2013.xls | Return Year : 2013 |

08/04/2014 12:03

**SECTION A : PRTR POLLUTANTS**

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

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

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs				
POLLUTANT		METHOD			QUANTITY				
Pollutant No.	Name	M/C/E	Method Code	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
303	BOD	C	PER	Calculated using flow to sewer over the year. Analysis is ISO accredited		185.5	185.5	0.0	0.0
306	COD	C	PER	Calculated using flow to sewer over the year. Analysis is ISO accredited		628.67	628.67	0.0	0.0
308	Detergents (as MBAS)	C	PER	Calculated using flow to sewer over the year. Analysis is ISO accredited		0.37	0.37	0.0	0.0
314	Fats, Oils and Greases	C	PER	Calculated using flow to sewer over the year. Analysis is ISO accredited		4.23	4.23	0.0	0.0
240	<b>Suspended Solids</b>	C	PER	Calculated using flow to sewer over the year. Analysis is ISO accredited		253.08	253.08	0.0	0.0

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

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : W0177 | Facility Name : | Filename : W0177\_2013.xls | Return Year : 2013 |

08/04/2014 12:04

**SECTION A : PRTR POLLUTANTS**

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

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR#: W0177 | Facility Name : | Filename : W0177\_2013.xls | Return Year : 2013 |

08/04/2014 12:04

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used		Haz Waste : Name and Licence/Permit No of Recover/Disposer	Non Haz Waste: Address of Recover/Disposer		
Within the Country	15 01 01	No	2732.0	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Mark Lydon Enterprises Ltd,IRE/G021/12	,,,,,,Ireland		
To Other Countries	15 01 01	No	439.0	paper and cardboard packaging	R13	M	Weighed	Abroad	Huhtamaki,IRE/AG032/11	,,,,,,Ireland		
To Other Countries	15 01 01	No	2760.0	paper and cardboard packaging	R13	M	Weighed	Abroad	MLM (ACN Europe) Ltd ,TFS Broker IRE/G022/11	,,,,,,United Kingdom		
To Other Countries	15 01 01	No	151.0	paper and cardboard packaging	R13	M	Weighed	Abroad	Materia Environmental Ltd.,IRE/AG161/11	House,Scilly,Kinsale,Co. Cork,Ireland		
Within the Country	15 01 01	No	521.0	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	Irish Packaging Recycling Ltd (Panda) ,W0263-01	Ballymount Rd ,Walkinstown ,Dublin 12 ,,Ireland		
To Other Countries	15 01 01	No	455.0	paper and cardboard packaging	R13	M	Weighed	Abroad	Cellmark USA,IRE/G180/11	200 Tamal Plaza,California,,95245,United States		
To Other Countries	15 01 02	No	57.0	plastic packaging	R13	M	Weighed	Abroad	Choice Waste Management,IRE/AG050/11	Denmark House,Brick Close Kiln Farm,Milton Keynes Buckinghamshire,MK11 3DP,United Kingdom		
To Other Countries	15 01 02	No	33.0	plastic packaging	R13	M	Weighed	Abroad	J & A Young ,TFS Broker IRE/G058/11	,,,,,,United Kingdom		
To Other Countries	15 01 02	No	42.0	plastic packaging	R13	M	Weighed	Abroad	Peute Papier Recycling BV,IRE/G006/08	Veeplaat 40,3313 LJ Dordrecht,,Netherlands Clermont Business		
Within the Country	15 01 02	No	395.0	plastic packaging	R13	M	Weighed	Offsite in Ireland	Leinster Environmentals,WP 2008/06	Park,Haggardstown,Dundalk, Co. Louth,Ireland		
Within the Country	15 01 02	No	15.0	plastic packaging	R13	M	Weighed	Offsite in Ireland	Agnail ,TFS Broker IRE/AG117/11	,,Ballycoolin,Dublin,Ireland		
To Other Countries	15 01 02	No	12.0	plastic packaging	R13	M	Weighed	Abroad	MRF Bray,,	,,,,,,Ireland		
Within the Country	15 01 03	No	984.0	wooden packaging	R13	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd	Lawlesstown ,Clonmel ,Co Tipperary ,,Ireland		
Within the Country	15 01 03	No	27.0	wooden packaging	R13	M	Weighed	Offsite in Ireland	,WP-008-02	,,,,,,Ireland		
Within the Country	15 01 04	No	12.0	metallic packaging mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	R13	M	Weighed	Offsite in Ireland	MRf rosemount,,	Ballycarney,Enniscorthy,Co. Wexford,,Ireland		
Within the Country	17 09 04	No	1457.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Offsite in Ireland	CHI Environmental Ltd ,WMP 023/2007	Grannagh ,Kilmacow ,Co Kilkenny ,,Ireland		
Within the Country	19 12 12	No	708.0	11	R13	M	Weighed	Offsite in Ireland	Greenstar limerick GES,,	,,,,,,Ireland		
To Other Countries	20 01 01	No	324.0	paper and cardboard	R13	M	Weighed	Abroad	MRf rosemount,,	,,,,,,Ireland		
Within the Country	20 01 01	No	453.0	paper and cardboard	R13	M	Weighed	Offsite in Ireland	Mark Lydon Enterprises Ltd,IRE/G021/12	,,,,,,Ireland		
To Other Countries	20 01 01	No	318.0	paper and cardboard	R13	M	Weighed	Abroad	MLM (ACN Europe) Ltd ,TFS Broker IRE/G022/11	,,,,,,United Kingdom		
To Other Countries	20 01 01	No	26.0	paper and cardboard	R13	M	Weighed	Abroad	Peute Papier Recycling BV,IRE/G006/08	Veeplaat 40,3313 LJ Dordrecht,,Netherlands		
Within the Country	20 01 02	No	695.0	glass	R13	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd	Lawlesstown ,Clonmel ,Co Tipperary ,,Ireland		
Within the Country	20 01 02	No	695.0	glass	R13	M	Weighed	Offsite in Ireland	,WP-008-02	,,Ireland		
Within the Country	20 01 08	No	1202.0	biodegradable kitchen and canteen waste	R13	M	Weighed	Offsite in Ireland	Ormonde Environmental,Not Required	Portlaw,Co. Waterford,,Ireland		
Within the Country	20 01 08	No	2154.0	biodegradable kitchen and canteen waste	R13	M	Weighed	Offsite in Ireland	Molloy Waste Services to Clonmel Waste Disposal Ltd	Lawlesstown , Clonmel ,Co Tipperary ,,Ireland		
Within the Country	20 01 08	No	1210.0	biodegradable kitchen and canteen waste	R13	M	Weighed	Offsite in Ireland	,WP-008-02	Lawlesstown ,Clonmel ,Co Tipperary ,,Ireland		



Within the Country	20 01 11	No	1.0 textiles	R13	M	Weighed	Offsite in Ireland	Textile Recycling Ltd .Licence exempt OD Recycling,WFP-TS-10- 0002-01	Glen Abbey Complex ,Belgard ,Tallaght , Dublin 24 ,ireland Kilsheelin,Co. Tipperary,,,,Ireland
Within the Country	20 01 38	No	1.0 wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland		Denmark House,Brick Close Kiln Farm,Milton Keynes Buckinghamshire,MK11 3DP,United Kingdom Veeplaat 40,3313 LJ Dordrecht,,,,Netherlands
To Other Countries	20 01 39	No	335.0 plastics	R13	M	Weighed	Abroad	Choice Waste Management,IRE/AG050/11 Peute Papier Recycling BV,IRE/G006/08 Agnail , TFS Broker IRE/AG117/11	10 The Anchorage Business Park,Charlotte Quay,Dublin 4,,Ireland ,,,,,,Ireland
To Other Countries	20 01 39	No	8.0 plastics	R13	M	Weighed	Abroad		10 The Anchorage Business Park,Charlotte Quay,Dublin 4,,Ireland ,,,,,,Ireland
Within the Country	20 01 39	No	320.0 plastics	R13	M	Weighed	Offsite in Ireland		10 The Anchorage Business Park,Charlotte Quay,Dublin 4,,Ireland ,,,,,,Ireland
Within the Country	20 01 39	No	989.0 plastics	R13	M	Weighed	Offsite in Ireland	Materia Environmental Ltd.,IRE/AG161/11 Clearcircle,.	10 The Anchorage Business Park,Charlotte Quay,Dublin 4,,Ireland ,,,,,,Ireland
Within the Country	20 01 40	No	34.0 metals	R13	M	Weighed	Offsite in Ireland		10 The Anchorage Business Park,Charlotte Quay,Dublin 4,,Ireland ,,,,,,Ireland
Within the Country	20 01 40	No	73.0 metals	R13	M	Weighed	Offsite in Ireland	Davis Recycling Ltd,W0134- 01 Green Dragon Recycling,. Molloy Waste Services to Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co Tipperary ,,ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 01 40	No	4.0 metals	R13	M	Weighed	Offsite in Ireland		Lawlesstown , Clonmel ,Co Tipperary ,,ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 02 01	No	59.0 biodegradable waste	R13	M	Weighed	Offsite in Ireland		Lawlesstown , Clonmel ,Co Tipperary ,,ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 03 01	No	4792.0 mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Bord Na Mona,W0201-01	Bray Depot ,Fassaroe ,Bray Co Wicklow,,ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 03 01	No	52.0 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Greenstar limerick GES,.	Bray Depot ,Fassaroe ,Bray Co Wicklow,,ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 03 01	No	1909.0 mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Sarsfield Court MRF,.	Bray Depot ,Fassaroe ,Bray Co Wicklow,,ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 03 01	No	24.0 mixed municipal waste	D5	M	Weighed	Offsite in Ireland	O toole Composting,. Binman via link to Gortnadomma,.	Bray Depot ,Fassaroe ,Bray Co Wicklow,,ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 03 01	No	1236.0 mixed municipal waste	D5	M	Weighed	Offsite in Ireland		Bray Depot ,Fassaroe ,Bray Co Wicklow,,ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 03 01	No	44.0 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd , W0053-03	Bray Depot ,Fassaroe ,Bray Co Wicklow,,ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 03 01	No	589.0 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Greyhoudb Crag Avenue,.	Bray Depot ,Fassaroe ,Bray Co Wicklow,,ireland ,,,,,,Ireland ,,,,,,Ireland ,,,,,,Ireland
Within the Country	20 03 01	No	1283.0 mixed municipal waste	R1	M	Weighed	Offsite in Ireland	Indaver IWMF ,W0167-02	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	20 03 01	No	73.0 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd.,W0152-03	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	20 03 03	No	1014.0 street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Bord Na Mona,W0201-01	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	20 03 03	No	436.0 street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0146-01	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	20 03 03	No	119.0 street-cleaning residues	R13	M	Weighed	Offsite in Ireland	Gortnadroma landfill,.	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	20 03 07	No	22.0 bulky waste	R13	M	Weighed	Offsite in Ireland	MRF Bray,.	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	20 03 07	No	382.0 bulky waste	D5	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	15 01 05	No	5.0 composite packaging	R13	M	Weighed	Offsite in Ireland	MRF rosemount,.	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	15 01 06	No	439.0 mixed packaging	R13	M	Weighed	Offsite in Ireland	MRF Bray,.	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	15 01 06	No	1864.0 mixed packaging	R13	M	Weighed	Offsite in Ireland	Quality Recycling Ltd.,WFP- TS-08-0079-01	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	15 01 06	No	1563.0 mixed packaging	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd.,W0152-03	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	15 01 06	No	1654.0 mixed packaging other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Offsite in Ireland	Killarney Waste Disposal ,W0217-01	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland
Within the Country	19 12 12	No	3941.0 11	R13	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Carlanstown , Duleek , Co Meath ,,Ireland Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland Drehid Landfill,Drehid ,Naas,Co. Kildare,Ireland Knockharley Landfill,Kentstown,Co. Meath,,Ireland ,,,,,,Ireland ,,,,,,Ireland Millennium Business Park,Grange,Ballycoolin,Dubl in 11,Ireland

Within the Country	19 12 12	No	7947.0 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Offsite in Ireland	Greenstar Ltd , W0053-03	Bray Depot ,Fassaroe ,Bray Co Wicklow,,ireland
Within the Country	19 12 12	No	5150.0 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd.,W0152-03	Robinhood Industrial Estate,Robinhood Road,Ballymount,Dublin 22,Ireland
Within the Country	19 12 12	No	438.0 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Offsite in Ireland	O toole Composting..	.....,ireland
Within the Country	20 01 39	No	447.0 plastics	R13	M	Weighed	Offsite in Ireland	Greentech plastics ltd.,	.....,Ireland
Within the Country	20 02 01	No	11.0 biodegradable waste	R13	M	Weighed	Offsite in Ireland	Molloy Waste Services to Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel ,Co Tipperary ,,ireland
Within the Country	15 01 02	No	5.0 plastic packaging	R13	M	Weighed	Offsite in Ireland	Leinster Environmentals,WP 2008/06	Clermont Business Park,Haggardstown,Dundalk, Co. Louth,Ireland
Within the Country	19 12 12	No	97.0 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Offsite in Ireland	Ballynagran Via bray.,	.....,Ireland
To Other Countries	20 01 01	No	12.0 paper and cardboard	R13	M	Weighed	Abroad	Peute Papier Recycling BV,IRE/G006/08	Veeplaat 40,3313 LJ Dordrecht,,Netherlands
Within the Country	20 03 01	No	24.0 mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Ballynagran Via bray.,	.....,Ireland
Within the Country	20 01 21	Yes	1.0 fluorescent tubes and other mercury-containing waste	R13	M	Weighed	Offsite in Ireland	KMK Metals Recyclin LTD.,	.....,Ireland
Within the Country	20 01 26	Yes	3.0 01 25 oil and fat other than those mentioned in 20	R13	M	Weighed	Offsite in Ireland	ENVA Portaloise,,	.....,Ireland
Within the Country	20 01 36	No	6.0 01 21, 20 01 23 and 20 01 35 discarded electrical and electronic equipment other than those mentioned in 20	R13	M	Weighed	Offsite in Ireland	KMK Metals Recyclin LTD.,	.....,Ireland

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

[Link to previous years waste data](#)

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

[Link to Waste Guidance](#)

# **APPENDIX 2**

## Procedures List



<b>Doc. No.:</b> Control	<b>Revision No.:</b> As Shown	<b>Issue Date:</b> As Shown
<b>Approved By:</b>	Malcolm Dowling – Group Environmental Manager Oliver Callan – Group H&S Manager	<b>Page 1 of 5</b>

**Integrated Procedures - IP**

IP-01	Document & Record Control Procedure	Rev 01, 05/07/10
IP-02	Health & Safety Risk Assessment Procedure	Rev 01, 05/07/10
IP-03	Environmental Aspects & Impacts Procedure	Rev 02, 09/09/13
IP-04	Legal & Regulatory Requirements Procedure	Rev 02, 09/09/13
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 02, 09/09/13
IP-06	Competence, Training & Awareness Procedure	Rev 03, 15/04/13
IP-07	Communication & Consultation Procedure	Rev 01, 05/07/10
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 01, 05/07/10
IP-09	Evaluation of Compliance Procedure	Rev 02, 15/09/11
IP-10	Non Conformances, Corrective/Preventive Actions Procedure	Rev 03, 01/02/11
IP-11	Internal Audit Procedure	Rev 03, 28/05/12
IP-12	Management Review Procedure	Rev 01, 05/07/10
IP-13	Control of Contractors/Visitors Procedure	Rev 03, 08/06/12
IP-14	Health & Safety & Environmental Monitoring	Rev 02, 29/10/10
IP-15	Emergency Preparedness & Response Procedure	Rev 02, 01/02/11
IP-16	Accident Prevention Procedure	Rev 03, 30/06/13

**Safety Procedures - SP**

SP-01	Permit to Work Procedure	Rev 02, 03/05/12
SP-02	Maintenance & Calibration Procedure	Rev 03, 04/04/11
SP-03	Mobile Plant Procedure	Rev 01, 05/07/10
SP-04	Fork Truck Procedure	Rev 01, 05/07/10
SP-05	Operation of Fixed Plant Procedure	Rev 01, 05/07/10
SP-06	Lock Out / Tag Out Procedure	Rev 01, 05/07/10
SP-07	Health & Safety Notification Procedure	Rev 01, 05/07/10
SP-08	Motor Claim Notification Procedure	Rev 01, 01/02/11
SP-09	MSW Shredder routine Maintenance & Clearing of Blockages Procedure (SCGT)	Rev 01, 01/12/11
SP-10	Weighbridge & Tipping Procedure (SCGT)	Rev 01, 01/12/11
SP-11	Cleaning of Washing Bay (Greenogue)	Rev 01, 05/05/12
SP-12	Ballymount CRF Safe Systems of Work	Rev 01, 23/09/13



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**Environmental Procedures - EP**

EP-01	Office Waste & Energy Management Procedure	Rev 01, 05/07/10
EP-02	Decommissioning and Aftercare Procedure	Rev 02, 14/09/11
EP-03	Environment Communications Procedure	Rev 03, 16/10/13
EP-04	Waste Permits & Licences Procedure	Rev 01, 05/07/10
EP-05	Waste Acceptance Procedure	Rev 01, 05/07/10
EP-06	Unacceptable Waste Procedure	Rev 01, 05/07/10
EP-07	Waste & Material Storage Procedure	Rev 01, 05/07/10
EP-08	Waste Processing Procedure	Rev 01, 05/07/10
EP-09	Site Infrastructure Procedure	Rev 01, 05/07/10
EP-10	Nuisance Management Procedure (Site Specific)	(Site Specific)
EP-11	Civic Amenity Site Procedure	Rev 01, 05/07/10

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<b>Approved By:</b>	Malcolm Dowling – Group Environmental Manager Oliver Callan – Group H&S Manager	<b>Page 3 of 5</b>

**Amendment History**

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
05.07.10	01	All	01	Initial Issue	M.D & O.C
13.09.10	02	EP-03	02	Issue of Incident Reports	M.D
20.09.10	03	IP-10	02	Env issues not logged on WIMS Database	M.D
29.10.10	04	IP-13	02	Use of M&M equipment by contractors	M.D & O.C
29.10.10	05	IP-14	02	Use of M&M equipment by contractors	M.D & O.C
29.10.10	06	SP-02	02	Inclusion of Maintenance Schedule	M.D & O.C
05.11.10	07	IP-04	02	Inclusion of other requirements	S.B & O.C
01.02.11	08	SP-08	01	Inclusion of new procedure	O.C
01.02.11	09	IP-10	03	Inclusion of SP-08	O.C
01.02.11	10	IP-15	02	Removal of SF-022	O.C
01.02.11	11	Contents	As shown	EP-10 Site Specific	M.D & O.C
01.02.11	12	IP-06	02	Addressing Agency Staff needs	M.D & O.C
01.02.11	13	Circ List	02	Amendment to document control	M.D & O.C
04.04.11	14	SP-02	03	Inclusion of Site Specific Maintenance schedules	O.C
07.06.11	15	IP-11	02	Inclusion of H&S & Env Internal Audit Schedules	M.D & O.C
14/09/11	16	EP-02	02	Inclusion of decommissioning of plant/equipment	S.B
15/09/11	17	IP-09	02	Inclusion of Statutory Inspections	O.C
01/12/11	18	SP-09	01	Inclusion of new procedure for SCGT	O.C
01/12/11	19	SP-10	01	Inclusion of new procedure for SCGT	O.C
03/05/12	20	SP-01	02	Amendment to remove SF 028	O.C
05/05/12	21	SP-11	01	Inclusion of a new procedure for Greenogue	O.C
28/05/12	22	IP-11	03	General Amendments to internal audit procedure	M.D & O.C
08/06/12	23	IP-13	03	Grammatical amendment	M.D & O.C
15/04/13	24	IP-06	03	Agency staff – sign-off record sufficient proof of training. TMS optional	M.D & O.C



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Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
30/06/13	25	IP-16	1	Inclusion of new procedure	M.D.
09/09/13	26	IP-03	2	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
09/09/13	27	IP-04	3	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
09/09/13	28	IP-05	2	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
16/10/13	29	EP-03	3	Introduction of EPA ALDER Portal	K.B
23/09/13	30	SP-12	1	Introduction of SP-12O.C	



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