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ANNUAL ENVIRONMENTAL REPORT

STARRUS ECO HOLDINGS LTD

FASSAROE MATERIALS RECOVERY FACILITY

FASSAROE, BRAY,

COUNTY WICKLOW

LICENCE NO. W0053-03

JANUARY 2017 – DECEMBER 2017

Prepared For: -

Starrus Eco Holdings Ltd,
Fassaroe,
Bray,
Co. Wicklow

Prepared By: -

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4th April 2018

Project	Annual Environmental Report 2017			
Client	Starrus Eco Holdings Ltd W0053-03			
Report No	Date	Status	Prepared By	Reviewed By
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0480204	04/04/2018	Final	Martina Gleeson PhD.	Jim O'Callaghan MSc

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1. INTRODUCTION

This is the 2017 Annual Environmental Report (AER) for the Starrus Eco Holdings Ltd (SEHL), Materials Recovery & Transfer facility (MRF) at Fassaroe, County Wicklow. It covers the period from the 1st January 2017 to the 31st December 2017.

The content is based on Schedule G of the Waste Licence (Reg. No. W0053-03) and the report format follows guidelines set in the "Guidance Note for Annual Environmental Report" issued by the Environmental Protection Agency (Agency)[1]. Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013[2].

[1] EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

[2] EPA (Environmental Protection Agency) 2012 Draft AER Guidance Document

2. SITE DESCRIPTION

2.1 Site Location & Layout

The installation is located close to the N11 at Fassaroe, Bray, County Wicklow. It comprises three main waste processing buildings, the original Transfer Building located close to the site entrance at the southern side of the site and adjoining Phase 1 & 2 Processing Building, which are located in the centre of the site. There is also an administration building incorporating office, canteen and toilet facilities; a vehicle wash; 2 no. weighbridges and a weighbridge office; office type portacabins (formerly used as offices); truck and empty skip parking areas and a vehicle maintenance shed adjacent the original transfer building. There is a surface water retention lagoon to the east of the Processing Building.

2.2 Waste Management Activities

The licence authorises the following activities:

- bulking of municipal solid waste prior to transfer off-site for disposal;
- in-vessel composting of biodegradable waste;
- wood shredding;
- bulking of dry recyclables;
- recovery of construction and demolition waste;
- acceptance of waste at a civic waste facility, which includes hazardous waste such as bonded asbestos waste, WEEE and chlorofluorocarbons.

With the exception of composting, which has not yet started, all of the other activities are on-going. The installation can be operated only during the hours of 7:30 to 21:00 Monday to Saturday inclusive as conditioned in the Licence.

2.2.1 Waste Type & Processes

The installation is licensed to accept a maximum of 200,000 tonnes of waste annually. This comprises the following waste types and volumes, as specified in Schedule A of the Licence: -

- Household and Commercial (143,560 tonnes),

- Construction & Demolition (54,040 tonnes),
- Hazardous (2,400 tonnes).

The following processes are carried out:

Mixed Municipal Solid Waste (MSW)

All mixed MSW containing a putrescible fraction is handled inside the original Transfer Building. The incoming waste is deposited on the floor of the building and is then either pushed into an open trailer or compacted, for removal and disposal or recovery at a licenced facility.

Non Putrescible Commercial and Industrial (C&I)

Non putrescible C&I waste delivered by waste contractors is off-loaded in the Phase 2 Building. Non putrescible C&I from the site's civic waste facility (public and commercial enterprises) is transferred to the Phase 2 Building.

The processing is carried out indoors. The materials are pre-sorted to remove bulky items and the remaining waste is fed into the C&I/C&D processing line which consists of a series of trommels & shredders. A fines fraction, containing soil & stones, is removed along with a lights fraction which is used for SRF production. . Over-band magnets are used to separate ferrous metals from the waste. Material is passed through a picking station to remove metals, concrete/stone, timber, hard plastics and residual material.

Timber is sent to the on-site timber shredder. Metals are stored pending consignment from the site to an approved facility.

The Dry Recyclables (DMR) processing line which was located in the Phase 1 building was removed during 2017 and the footprint of the C+I/C+D line has been extended into that area. This additional space allows for the production of SRF from the lights fraction generated by the main part of the line.

Construction and Demolition (C&D) Waste

The material is processed inside the Phase 2 building using the same processing line as for the C&I wastes described above. The fines are sent to landfill for use as cover material. Timber is sent to the on-site timber shredder. Metals are stored pending consignment from the site.

Wood, Timber and Green Waste

The wood and timber recovered on-site is shredded externally in the north of the site and sent off-site for disposal or recovery. Untreated timber accepted at the site is classed as A-grade timber and segregated from treated & recovered timber.

Green waste is stored pending transfer to an off-site composting facility. Although the Licence allows for in-vessel composting of biodegradable waste, this has not yet started.

Civic Amenity Area

The civic amenity area is located to the north-west of the original Transfer Building. There are separate bays for timber, green waste, metals and mixed wastes.

Hazardous Wastes

The Licence authorises the acceptance of small volumes of hazardous waste at the civic amenity area (WEEE, bonded asbestos materials and chlorofluorocarbons). These wastes are stored in the waste quarantine area in suitable receptacles pending removal off site to approved facilities.

2.2.2 Plant List

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

Table 2.1 Existing Plant

No.	Plant	Model	Processing Capacity
1	Fuchs Grab F4	MHL340	30t/hr
1	Volvo Loading Shovel	L70E	20t/hr
1	Volvo Loading Shovel	L150	85t/hr
2	Forklifts (Linde & Toyota)		40hr/wk
1	Generator		standby
1	C&I/C&D Process Line	Waltec	35t/hr
1	Tractor	Massey Ferguson 4255	2hr/wk
1	Weighbridge 2 Scales	RiteWeigh Aran Series 18 m	62hr/wk
1	Palfinger	Electric Grap	40hr/wk
1	New Holland	Track Machine	40hr/wk

3. EMISSION MONITORING

SEHL implements a comprehensive environmental monitoring programme to assess the significance of emissions from site activities. The programme for 2017 included groundwater, surface water, leachate, sewer emissions, landfill gas, noise and dust monitoring. The monitoring locations are shown on Figure 3.1. The monitoring results are submitted to the Agency at quarterly intervals. An overview of the monitoring conducted in the reporting period is presented in this Section, with summary data tables in Appendix 1.

3.1 Groundwater

There are four (4) on-site groundwater monitoring wells (BH-2, BH-5, BH-6 and BH-7). Monitoring wells BH-2, BH-5 and BH-7 are positioned downgradient of the former landfill area while BH-6 is upgradient. The upgradient monitoring well (BH-6) was installed in March 2009 to replace the previous well that was removed during construction of the administration building. This location was dry throughout 2017.

3.1.1 Groundwater Levels

Groundwater levels were recorded at quarterly intervals in each of the wells. Based on the level data the direction of groundwater flow is north easterly.

3.1.2 Groundwater Quality

In 2012 the Agency required SEHL to complete an investigation of the feasibility of using an offsite groundwater well for monitoring purposes. The investigation established that there are no off-site upgradient groundwater wells suitable for use. In the absence of an upgradient monitoring point and, for the purposes of interpreting the groundwater monitoring results, the Agency agreed to assume that the groundwater upgradient of the SEHL installation is typical of unpolluted Irish groundwater.

Groundwater "Warning Levels" were agreed by the Agency on the 17th December 2013, subject to them being recalculated annually as part of the AER and implemented in the following reporting year. The recalculated Warning levels for 2018 are in Table 3.1.

Table 3.1 2018 Groundwater Warning Levels

2018 Revised Triggers	EC	Ammonia	Chloride	pH
BH-2	4.462	0.22	82.75	8.90
BH-5	2.813	0.38	73.06	7.96
BH-7	1.039	5.33	36.70	8.12

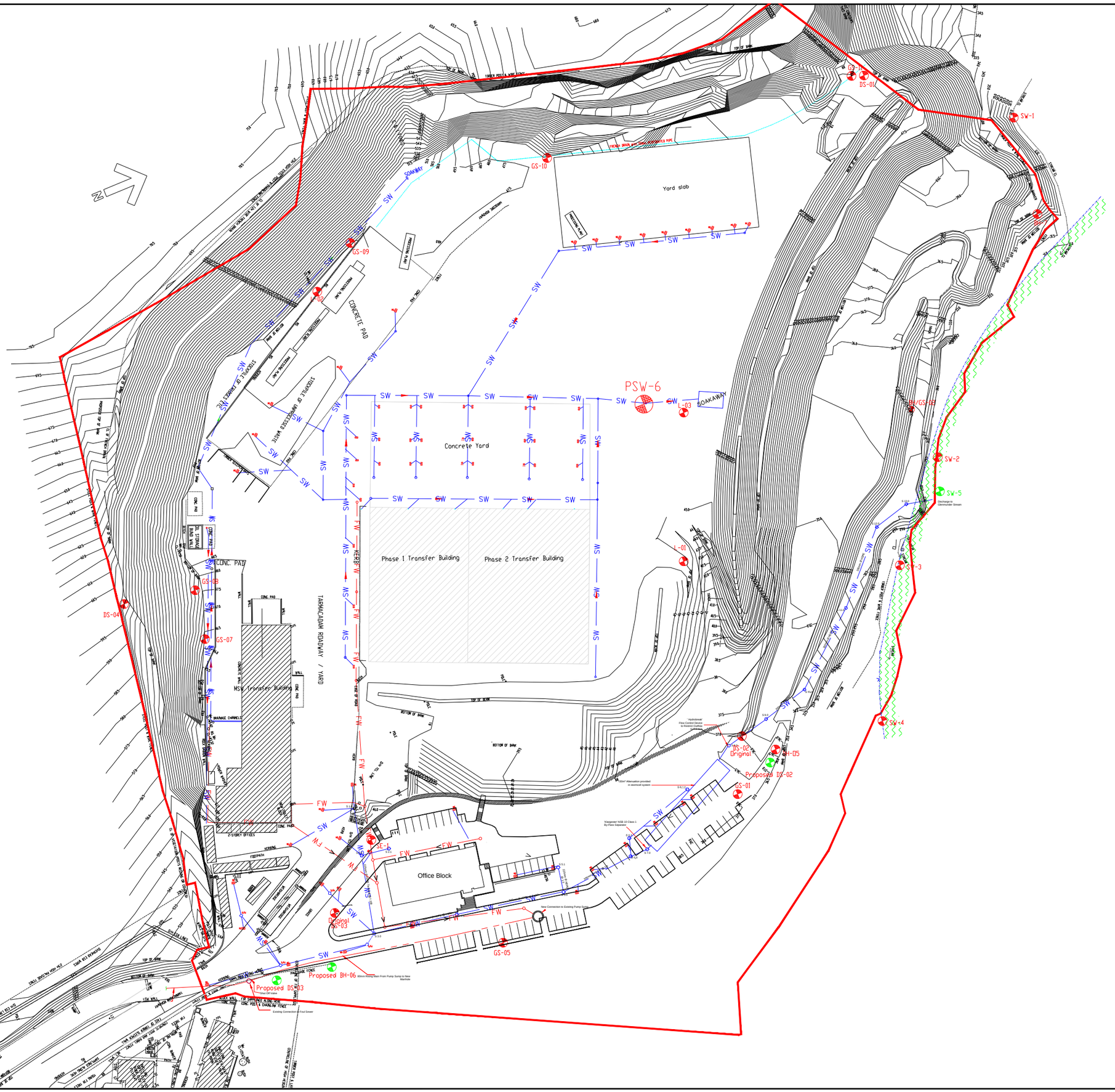
Groundwater quality was monitored at quarterly intervals. The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures. The range of quarterly and annual analysis was as specified in Schedule C of the Waste Licence and includes pH, electrical conductivity and organic, inorganic and microbiological parameters. A summary of the results is included in Appendix 1.

The Warning Levels were not exceeded for any parameter at any of the groundwater monitoring locations in 2017. The water quality in the three wells was generally consistent with that established in the previous monitoring and is generally reflective of the sites historic use as a landfill.

3.1.3 Estimated Annual and Cumulative Quantity of Emissions to Groundwater

There are no direct emissions to groundwater. Indirect emissions include incidental rainfall and storm water run-off from some of the paved areas.

All surface water from the paved areas is diverted away from the filled areas to the on-site surface water lagoon thereby reducing the potential indirect impact of surface water on groundwater quality. Rainwater from roofed areas is now diverted to a water harvesting tank for use in dust suppression. Section 3.2 discusses the quantities of emissions to surface water.



NOTES

LEGEND: MONITORING LOCATIONS

Denotes Monitoring Location
(BH, GAS and LEACHATE)
(SURFACE WATER, SEWER and DUST)

#	I.D.	EASTING	NORTHING
1	SE-1	324309.01	218051.50
2	BH5/GS-01	324311.85	218157.81
3	BH/GS-02	324212.67	218255.62
4	BH-6	324212.67	218255.62
5	BH-7	324330.71	217905.07
6	GS-05	324331.23	218071.80
7	GS-07	324146.36	218021.76
8	GS-08	324118.57	218049.52
9	GS-09	324094.55	218100.07
10	GS-11	324100.93	218272.43
11	L-01	324231.96	218165.23
12	L-02	324108.57	218077.92
13	L-03	324552.44	218035.59
14	SW-1	324132.36	218322.94
15	SW-2	324247.97	218240.29
16	SW-3	324326.38	218166.72
17	SW-4	324359.53	218124.20
18	SW-5	324289.90	218185.10
19	N1	324310.04	217965.54
20	N2	324313.86	218013.03
21	N3	324325.62	218143.04
22	N4	324209.97	218262.19
23	NSL1	324305.76	217858.30
24	NSL2	324299.20	217845.31
25	DS-01	324122.92	218288.56
26	DS-02	324265.71	218205.11
27	DS-03	324315.24	218005.08
28	DS-04	324161.16	218013.86

PROPOSED LOCATIONS IN GREEN

PSW-6	324509.45	218040.50

REV	DATE	DESCRIPTION	DRN	CHKD	APP
A	15.11.2010	LAYOUT	MW	JOC	JOC

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CLIENT

GREENSTAR

TITLE

W0053-03
FASSAROE
Monitoring Locations

SCALE	FIGURE No.	REV.
1250 A3	3.1	A

3.2 Surface Water

The surface water drainage system in and around the site is dominated by the proximity of the Glenmunder Stream along the north eastern boundary. The Glenmunder ultimately drains to the River Dargle, which is a designated salmonid river. Surface water run-off from the roof of the administration building and new car park area discharges to the Glenmunder via a silt trap and oil interceptor.

Surface water quality is monitored at four locations (SW-1, SW-2, SW-3 and SW-4) on the Glenmunder and at one discharge point from the installation to the Glenmunder (SW-5). SW-1 is upstream of the site, SW-2 and SW-3 are along the site boundary and SW-4 is downstream of the site. SW-5 is the discharge point for rainfall runoff from the roof of the administration building and the car park area to the Glenmunder. Quarterly surface water sampling was carried out at all surface water locations in 2017.

The monitoring was conducted at quarterly intervals and included in-situ and laboratory testing. The range of analysis was as specified in Schedule C of the Waste Licence and includes dissolved oxygen, pH, electrical conductivity, and organic and inorganic parameters. The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures. A summary of the monitoring results is in Appendix 1.

The monitoring has confirmed that the surface water quality is generally consistent with that in a rural area and there is no evidence that site activities or the surface water discharge at SW-5 is impacting on the stream.

The last report on the biological assessment of the Glenmunder River was submitted to the Agency in December 2017. A biological assessment is carried out every two years and will be carried out again in 2019. Very few differences were noted between the survey results for 2017 and those of 2011, 2013 and 2015. Water quality in 2017 both up and down stream is classed as ‘poor’ and ‘at risk’. There are no significant differences recorded between the upstream and downstream location therefore it is assumed that the drop in quality can be ascribed to an impact occurring upstream of SW-1.

3.3 Wastewater

Wastewater from the installation (floor wash downs, vehicle washing) discharges to the municipal foul sewer. A wastewater sample was collected monthly from monitoring location SE-1. It was not possible to collect samples in January, July and October, as there was no flow at the monitoring location. The discharge from the lagoon was shut off in April, May and June due to the storage of firewater in the lagoon, therefore samples could not be collected. The range of analysis was as specified in Schedule C of the licence and included pH, COD, BOD, suspended solids, sulphates, oils, fats and greases, mineral oils and detergents. The monitoring results are in Appendix 1.

The ELV for TSS was exceeded in February and December. There were exceedances of the ELV for TSS and surfactants in November. Following the incidents in November and December, SEHL undertook a large scale cleaning of the lagoon and associated pipework.

3.4 Leachate

Leachate is generated by rainfall in the former landfill area. There are three leachate monitoring wells the locations of which are shown on the drawing in Figure 3.1.

3.4.1 Leachate Levels

Levels were monitored at monthly intervals during the reporting period. In general the wells were either dry or contained very small volumes of liquid at the base which could not be sampled. As these wells have been consistently dry OCM investigated the feasibility of using the on-site gas wells as leachate monitoring points. The gas wells GS-07 and GS-08 were identified as suitable leachate monitoring points.

3.4.2 Leachate Quality

Leachate samples were collected from GS-07 and GS-08 in 2017. The results are not indicative of either the presence of a typical landfill leachate, or significant leachate contamination at these locations. Both locations are within the waste body but are located at the upgradient side and are close to the interface between the waste body and natural ground. The leachate results are summarised in Appendix 1.

3.5 Landfill Gas

Monitoring was carried out in accordance with Schedule C of the Waste Licence. The monitoring locations specified in the Licence include seven landfill gas wells (GS-05, GS-07, GS-08, GS-09, GS-10 and GS-11), the groundwater monitoring wells (BH-2, BH-5, BH-6 and BH-7) and the leachate boreholes (L-01, L-02 and L-03).

GS-01, GS-05, BH-2, BH-5, BH-6 and BH-7 are located outside the fill area. GS-07, GS-08, GS-09, GS-10, GS-11, L-01, L-02 and L-03 are located in the fill area. The nearest buildings to the filled area are the waste processing buildings and the site offices. OCM conducted gas monitoring in the waste processing buildings and the site offices during all monitoring events and the results are included in Appendix 1. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

Out of one hundred and thirty-four landfill gas measurements made during the reporting period, methane was detected on ten (10 No.) occasions in wells located in the fill area. The highest

level detected was 0.5% in L-03 in October. Methane was not detected in any of the wells outside the waste body. Methane trend data is presented in Figure 3.2. Carbon Dioxide was measured at levels above the trigger level (1.5% v/v) on twenty-five (25 No.) occasions in wells outside the waste body. The highest level detected was 14.0% at GS-07 in October.

The exceedances of the carbon dioxide trigger levels have neither been immediately reported nor treated as incidents issued as the levels are not unexpected i.e. they are not the result of incidents. Instead, to the Agency's satisfaction and agreement, results have been discussed in each quarterly report submitted for the installation.

3.5.1 Landfill Gas Volumes

The occasional elevated carbon dioxide concentrations and the occasional presence of methane indicate that some degree of degradation of organic waste is occurring within the fill area. Based on the available information on the site history it appears that some biodegradable material may historically have been deposited at the site. The monitoring results do not indicate that landfill gas is migrating from the former fill area.

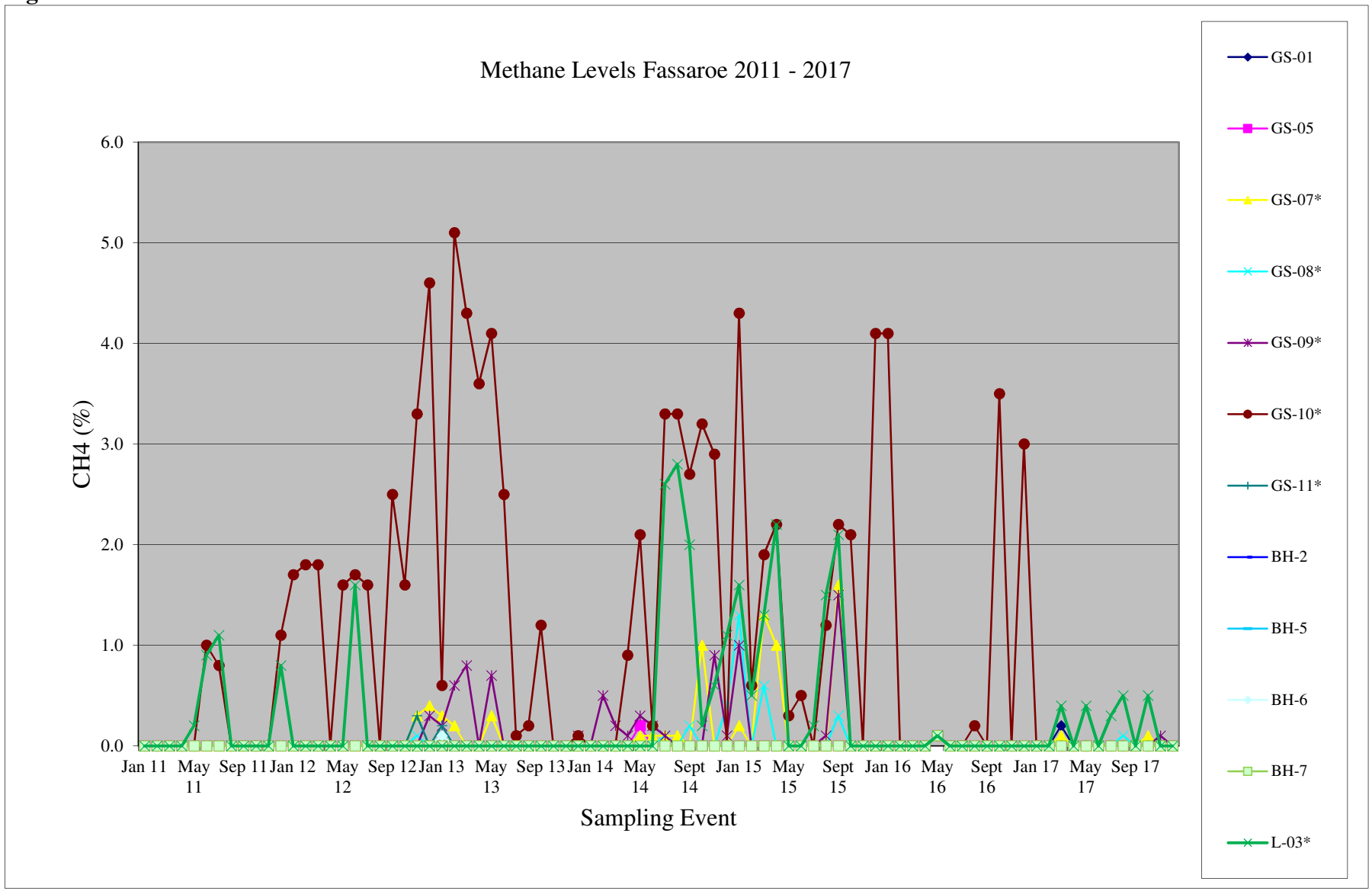
Given that the type and quantity of the biodegradable waste deposited on-site is not known, it is impossible to predict the volumes of landfill gas that may be generated. However, the monitoring results indicate that the volume of such degradable material is likely to be small and will reduce over time.

3.5.2 Landfill Gas Control

The design of the recently constructed structures at the site, specifically the Phase 2 Processing Building and the new administration building, incorporate sub-surface landfill gas protection measures and recent landfill gas monitoring in buildings around the site have not detected methane or elevated levels of carbon dioxide.

There is no landfill gas control system on-site. The landfill gas concentrations measured in the routine monitoring programme indicate there is no need for such control measures. However, this will be kept under review based on the results of the on-going landfill gas monitoring programme.

Figure 3.2 Methane Levels 2011-2017



3.6 Noise Survey

The annual noise survey was carried out in accordance with International Standard ISO 1996-2 Acoustics – Description, measurement and assessment of environmental noise, Part 2: Determination of environmental noise levels (2007) and EPA document NG4 Guidance note for noise: Licence applications, surveys and assessments in relation to scheduled activities (2012). The survey measured daytime noise levels at four boundary stations (N1-N4) and two offsite stations (NSL1 and NSL2). At the request of the EPA, noise levels were measured at one additional station (N_{RM}), located on the site's eastern boundary at the closest point to a nearby dwelling. The installation was found to be in compliance with the licence conditions.

Daytime $L_{Aeq\ 30\ min}$ levels at the onsite stations N1-N4 were 37-62 dB. Site noise sources were audible to varying degrees at each monitoring location. The 55 dB daytime limits specified in the licence do not apply to these stations.

$L_{Aeq\ 30\ min}$ levels recorded at the noise sensitive locations NSL1 and NSL2 were 47-54 dB and 55-61 dB respectively during the daytime. Offsite noise sources, particularly road traffic, affected both, with site emissions almost completely masked by extraneous sources at NSL2. Noise levels measured at N_{RM} were 46 dB, intrusion of offsite sources prevented accurate determination of the SEH contribution. The various SEHL sources audible here gave rise to a calculated contribution of less than 46 dB. Levels measured at N_{RM} were similar to those measured at N3.

3.7 Dust Monitoring

Dust monitoring is carried out monthly at four monitoring locations, DS-01, DS-02, DS-03 and DS-04. DS-01 is located at the northern portion of the installation within the site boundaries and approximately 250 m from the nearest sensitive receptor. DS-02 is located away from operational areas, close to a formerly vegetated area along the northern boundary. This location is at the edge of the car park for the administration building. DS-03 is located within the site boundary close to the car park and to the east of the site weighbridges. DS-04 is located on the southern boundary of the installation at the top of an embankment.

In September, following on from dust complaints, the Agency requested that SEHL install a dust monitoring gauge (DS-05) at a location in close proximity to the complainant's dwelling. The Agency also requested that new bird deterrent dust poles be installed at all locations due to the high number of dust gauge contamination events. DS-05 was installed prior to the December monitoring event within the car park close to the site boundary and between monitoring locations DS-02 and DS-03.

The dust levels measured at DS-01 in February exceeded the deposition limit and this was due to the presence of a high level of organic material in the dust gauge. The source of the dust was thought to be the timber shredding area to the south of the monitoring location. SEHL increased the dust suppression measures at this location which has had a positive result on the dust levels measured at DS-01. All other measurements were below the limit of 350mg/m^2/day.

4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

No specified engineering works were carried out in 2017.

4.2 Site Restoration

No site restoration works were carried out in 2017.

4.3 Site Development

The C+I line was re-arranged to prevent litter and dust generation and to redirect certain waste streams internally. The timber shredding area was upgraded to include an acoustic barrier and enhanced dust control. The processing of DMR was discontinued.

In 2018 further works are planned for the C+I line. SEHL also intend to upgrade the original transfer building and to construct a new timber processing building.

4.4 Summary of Resource & Energy Consumption

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

Table 4.1 Estimates of Resources Used On-Site 2017

Resources	2016	2017
Diesel	188,863 litres	135,554 litres
Hydraulic, Transmission and Engine Oil	8,215 Hydraulic 3,153 Engine Oil	8,000 litres 3,000 litres
Gear Oil	120 litres	100 litres
Electricity	1,627,640 kWh	1,608,106 kWh
Gas	52,716 kWh	104,000 kWh

5. WASTE RECEIVED AND CONSIGNED FROM THE INSTALLATION

Table 5.1 shows the quantities of wastes accepted and consigned for the reporting period. A more detailed description of the wastes received and consigned in 2017 is presented in the PRTR submission in Appendix 2.

The total quantity of waste received was 177,082 tonnes and the total amount consigned was 178,559 tonnes. The waste received and consigned in 2017 and 2016 are presented in Tables 5.1 and 5.2. For comparative purposes the amounts of waste received and consigned from 2006 to 2016 are presented in Table 5.3. As per Condition 11.12 of the Licence all the wastes consigned from the site went to authorised recovery and disposal facilities and a copy of the relevant Facility Permit or Waste Licences retained on site for Agency inspection.

More waste was consigned from the installation than accepted. This was waste which was accepted onto the site in 2016 and consigned in 2017.

Table 5.1 Waste Received and Consigned 2017

EWC	Description	Waste In	Waste Out
15 01 01	Cardboard Packaging	1178.06	835.38
15 01 02	Plastic Packaging	31.89	187.782
15 01 03	Wooden Packaging	141.623	
15 01 04	Metal Packaging	0.274	14.76
15 01 06	Mixed Packaging	1657.9	12.22
15 01 07	Glass Packaging	5.41	
15 01 09	Textile	15.6	
15 02 03	Protective Clothing	0.68	
16 01 03	Tyres	0.36	21.34
16 05 04*	Gas Cylinders		1.88
16 06 01*	Lead Acid Battery		1.611
17 01 07	Rubble	137.98	
17 02 01	Wood	36.66	
17 04 01	Copper	0.34	
17 04 05	Steel	7.525	
17 05 04	Soil & Stones	199.54	768.43
17 09 04	C&D Inert Mixed	5570.238	5477.92
19 05 01	MSW Fines	2314.56	2315.72
19 05 03	Compost	7139.301	7140.141
19 08 01	LDF Screening	13.98	13.98
19 08 02	Grit	4.2	4.2
19 10 01	Metal		35.8
19 12 07	Wood	13105.2	50268.82
19 12 09	C&D Inert Mixed		12461.26
19 12 10	Solid Recovered Fuel (SRF)	12.92	18841.64
19 12 12	C&I Dry Mixed	7326.92	41921.26
20 01 01	Cardboard & Paper	39.162	
20 01 02	Glass	6.17	
20 01 08	Biodegradable Waste	1912.76	2075.9
20 01 11	Textile	17.24	
20 01 35	Electronics & Electrics	1.152	
20 01 38	Wood	31095.082	39.06
20 01 39	Plastic	81.01	9.07
20 01 40	Metal	147.535	3919.709
20 02 01	Green Biodegradable Waste	843.7	1292.5
20 03 01	MSW Municipal Mixed	28199.996	25206.26
20 03 03	LDF Street Cleaning	3410.7	2879.12
20 03 07	C&I Dry Mixed	72426.601	2813.33
	Total Received	**177,082.269**	
	Total Consigned		**178,559.093**
	Total Disposed		**54,455.941**
	Total Recovered		**124,103.1521**
	Recovery Rate (%)		**69.50%**

Table 5.2 Waste Received & Consigned 2016

EWC	Description	Waste In	Waste Out
13 02 08	Waste Oil		2.26
15 01 01	Cardboard Packaging	3054.727	5383.94
15 01 02	Plastic Packaging	154.017	4593.69
15 01 03	Wooden Packaging	93.765	44.18
15 01 04	Metal Packaging	12.524	44.56
15 01 06	Mixed Packaging	9759.56	171.52
15 01 07	Glass Packaging	3.585	
15 02 03	Protective Clothing	1.92	
16 02 14	Cables	1.89	
16 05 04	Gas Cylinders		0.8
17 01 01	C&D Inert Mixed	24.6	
17 02 03	Plastic		2.3
17 04 01	Copper	0.3	
17 04 05	Steel	0.12	
17 05 04	Soil & Stones	5884.94	
17 09 04	C&D Inert Mixed	1637.41	420.72
19 01 19	Sand	13.08	
19 05 01	MSW Fines	23.84	148.72
19 05 03	Compost	8466.006	8008.77
19 05 99	MSW Fines	176.36	495.7
19 08 01	LDF Screening	74	74
19 08 02	Grit	4.72	4.72
19 08 99	BioPlant Solids	6.96	
19 09 99	Sand	12.84	
19 12 07	Wood	423.793	32531.76
19 12 09	C&D Inert Mixed	1039.55	8884.56
19 12 10	Solid Recovered Fuel (SRF)	8.56	25888.78
19 12 12	C&I Dry Mixed	10957.475	43335.52
20 01 01	Cardboard & Paper	851.897	7932.52
20 01 02	Glass	9.02	
20 01 08	Biodegradable Waste	3193.95	2793.32
20 01 11	Textile	85.75	
20 01 38	Wood	27895.72	388.16
20 01 39	Plastic	40.816	14.62
20 01 40	Metal	130.226	3569
20 02 01	Green Biodegradable Waste	973.66	1455.32
20 03 01	MSW Municipal Mixed	43626.22	36510.25
20 03 03	LDF Street Cleaning	4634.6	4766.23
20 03 07	C&I Dry Mixed	68611.803	4267.21
	Total Received	**191,890.204**	
	Total Consigned		**191,733.13**
	Total Disposed		**93,747.94**
	Total Recovered		**97,985.19**
	Recovery Rate (%)		**51.11%**

Table 5.3 Total Tonnages Received, Consigned & Recovered in 2005-2016

Year	Total Received	Total Consigned	Total Recovered	Recovery Rate
2016	191,890.20	191,733.13	97,985.19	51.11%
2015	154,817.81	157,676.64	87,560.55	55.53%
2014	145,839.48	149,768.21	82,294.88	54.95%
2013	92,433.67	91,018.94	54,706.51	66.10%
2012	121,367.30	125,661.87	84,454.83	67.02%
2011	138,048.00	155,995	92,492.16	67%
2010	142,365.00	143,248.24	64,494.98	45.02%
2009	135,386.12	122,331.95	61,297.98	50.10%
2008	152,695.89	138,814.22	10,828.00	54.34%
2007	192,679.93	198,371.37	39,186.00	54.90%
2006	170,600.44	119,836.93	80,328.43	72%
2005	178,735.42	110,077.96	60,504	50%

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

The routine gas monitoring programme identified 25 incidences where the trigger level for carbon dioxide was exceeded as described in Section 3. Landfill gas concentrations are monitored on a monthly basis at the installation. Historically the exceedances of the carbon dioxide trigger levels have neither been immediately reported nor treated as incidents issued as the levels are not unexpected i.e. they are not the result of incidents. Instead, as agreed with the Agency, results have been discussed in each quarterly report submitted for the installation. A summary of the gas monitoring data is presented in Appendix 1.

There were three wastewater incidents, with exceedances of the ELV for TSS in February, November and December and the ELV for surfactants was also exceeded in November. A summary of the wastewater monitoring results is in Appendix 1.

An incident report was submitted regarding a fire on site on March 27th 2017. An external timber pile was set alright overnight. All follow up actions were successfully closed out and the event investigated.

6.2 Register of Complaints

SEHL maintains a register of complaints received in accordance with Condition 11.7 of the waste licence. Complaints regarding dust, noise, light, odour and windblown litter were received from various neighbours during the reporting period. Details of each communication were documented in the Communications database on site. Each complaint was followed up, remedial actions taken and lines of communication kept open with the site neighbours at all times. 32 complaints were made to the Agency.

7. ENVIRONMENTAL DEVELOPMENT & CONTROL

7.1 Environmental Management Programme Report

SEHL 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 the requirements of the Waste Licence Conditions. SEHL has prepared and effectively implement documented procedures and instructions in accordance with the requirements of both the OHSAS 18001:2007 and ISO 14001:2004 and the site has been certified to these standards since 2010. The site underwent a successful external audit in September 2017.

As part of this IMS, SEHL has developed a list of environmental, management, operating and maintenance procedures, details of which are outlined in Appendix 3. The schedule of Objectives and Targets, including their status for 2017 (Table 7.1), as well as the proposed Objectives and Targets for 2018 (Table 7.2) are presented below.

7.1.1 Site Management Structure

Details of the site management structure are given below.

Name: Kieran Connor **Title:** Group Operations Manager

Training & Experience: Has completed FAS Waste Management Course equivalent. Over 20 year's experience in the waste industry.

Responsibilities: Operational responsibility for all processing sites.

Name: Armando Almansa **Title:** Facility Supervisor

Training & Experience: Has completed the FAS Waste Management Course equivalent. Over 15 year's experience in waste industry.

Responsibilities: Daily responsibility for environmental compliance in SEHL Bray.

7.1.2 Staff Training

Job specific equipment training, machine refresher training and manual handling training was carried out in 2017.

7.2 Environmental Management Programme Proposal

7.2.1 Schedule of Objectives 2017

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

7.2.2 Schedule of Objectives 2018

The schedule of targets and objectives for 2018 are presented in Table 7.2.

Table 7.1 Schedule of Objective and Targets 2017

No.	Objective	Target	Timescale	Responsibility	Status
1	**Odour management**	Ensure odour management plans are followed and potential new sources of odour are identified	Q1 - Q4	Site management	Ongoing
2	**Fire prevention**	Implement recs from Fire Risk Assessments Update ERP & APP Maintain fire detection equipment	Q1 - Q4	Site management/ EHS team	Ongoing Completed Ongoing
3	**Waste storage**	Review waste storage practices on each site to ensure that they are in line with licence conditions, fire prevention and insurance recommendations	Q1 - Q4	Site management/ EHS team	Completed
4	**Waste acceptance, classification & records**	EWC training for all weighbridge ops. Centralisation of all licences & permits inc NWCPs for hauliers.	Q1 - Q4	EHS team	Completed
5	**CRAMP, ELRA & Financial Provision**	CRAMP, ELRA & Financial Provision to be reviewed	Q2	EHS team	Completed
6	**Lighting in MRF buildings**	Clean & upgrade where required all light fittings in MRF buildings	Q3	Site management	Ongoing
7	**NWCP exemptions**	Implement NWCP exemption declarations	Q1 - Q4	Site management	Completed
8	**Fire risk assessment**	Implement FRA recommendations	Q2	Site management/ EHS team	Ongoing
9	**Storm water trigger levels**	Set SW trigger levels	Q2	EHS team	Completed
10	**Public complaints log**	Reformat complaints log to ensure that it is publically accessible.	Q1	EHS team	Completed
11	**Review litter netting**	Assess litter netting surrounding the site	Q2	EHS team	Completed
12	**Noise reduction plan**	Formulate noise reduction plan	Q2	EHS team	Completed
13	**Odour management plan**	Formulate odour management plan	Q2	EHS team	Completed
14	**Dust management plan**	Formulate dust management plan	Q2	EHS team	Completed

Table 7.2 Schedule of Objective and Targets 2018

No.	Objective	Target	Timescale	Responsibility
1	**Nuisance management**	Ensure odour/noise/dust management plans are followed and potential new sources are identified	Q1 - Q4	Site management
2	**Fire prevention**	Implement recs from Fire Risk Assessments Update ERP & APP where applicable Maintain fire detection equipment	Q1 - Q4	Site management/EHS team
3	**Waste storage**	Review waste storage practices on each site to ensure that they are in line with licence conditions, fire prevention and insurance recommendations	Q1 - Q4	Site management/EHS team
4	**ISO 14001 transition**	Transition ISO 14001 to the 2015 standard	Q2	EHS team
5	**Paperless project**	Implement plans for a paperless office	Q3-Q4	All staff
6	**Resource tracking**	Sites to track energy usage and other resources in order to conserve wherever possible	Q1 - Q4	Site management/EHS team
7	**Hardstand & site infrastructure**	Review hardstand and formulate repair plan as required. Record using EF11.	Q1 - Q4	Site management/EHS team
8	**C+I line**	Complete modifications to C+I.	Q2	Site management
9	**Timber building SEW**	Submit SEW for proposed timber processing building	Q2	EHS Team
10	**Renovate MSW building**	Complete deep clean & structural renovations to MSW building		

7.3 Reduction of Water Demand

SEHL upgraded the surface water drainage system as agreed with the Agency in March 2012. The works included the installation of an attenuation tank to collect the roof water from the processing building and this is reused for dust suppression on site.

7.4 Volume of Wastewater Produced and Transported off site

The total amount of wastewater produced during the reporting period was 17,165 m^3 which was discharged to the municipal sewer.

7.5 Pollution Emission Register

The Pollution Emission Register (PER) has been replaced by the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 2.

7.6 Nuisance Controls

SEHL has contracted a vermin control company Eastern Pest Control to carry out nuisance control at the installation. Eastern Pest Control undertake a six weekly review of the vermin activity on-site along with an inspection of the bait traps that are located throughout the installation.

7.7 Tank & Pipeline Testing

Bund testing was carried out in 2013 and was confirmed to be fit for purpose. The bund report was submitted via Alder. Pipeline integrity testing of the foul and surface water networks was carried out in May 2016 by McBreen Environmental and the pipelines found to be watertight. Written records of this inspection are maintained on site.

7.8 Slope Stability Assessment

An assessment of the stability of the slopes was carried out in compliance with Condition 6.10 of the licence in April 2008 and was reported to the Agency as part of the 2008 AER. No further site restoration work was carried out and therefore it was not necessary to carry out a further stability assessment.

7.9 Programme for Public Information

SEHL is committed to setting the standard in waste management and ensuring environmental compliance in all operations. In addition, SEHL's Environmental, Health & Safety Policy makes a specific commitment to make the policy and records available to the public and interested parties. To this end SEHL has drawn up a Communications Programme, which details how members of the public are facilitated in accessing environmental information at the installation. Records available for public inspection on site include:-

- Environmental, Health & Safety Policy,
- Waste Licence,
- Licence Application and Review documentation,
- Monitoring Records,
- Complaints File,
- EPA Correspondence File.

Visits to the site should be arranged in advance by ringing the Facility Manager or Supervisor at 1890 500 800.

7.10 DMP, ELRA & Report on Financial Provision

A Decommissioning Management Plan (DMP) and Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) were submitted to the Agency in April 2017. Both the DMP and ELRA have been approved by the Agency.

7.11 Waste Recovery Report

The installation, which is designed to increase the recycling of biodegradable materials and reduce the volume of waste disposed to landfill, meets the needs identified in EU and national waste policy statements and contributed to the achievement of these goals as out of 177,082.27 tonnes received approximately 124,103 tonnes or 69.50% was sent for recovery.

8. OTHER REPORTS

8.1 European Pollutant Release and Transfer Register Regulation

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 SEHL are required to submit information annually to the Agency. A copy of the return submitted to the Agency via the web-based data reporting system is included in Appendix 2.

APPENDIX 1

Environmental Monitoring Summary Tables

GROUNDWATER SUMMARY TABLES

Groundwater Results 2017 Fassaroe W0053-03: BH-2

Parameter	Units	1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017
Temperature	°C	9.2	10.7	13	10.3
Chloride	mg/l	49	44.7	44.3	29.9
Ammoniacal Nitrogen -N	mg/l	0.03	<0.03	0.04	0.03
Conductivity	mS/cm	2.613	2.366	1.99	2.212
Dissolved Oxygen	mg/l	10	6	7	7
pH	pH Units	7.75	7.57	7.14	7.33
Nitrate	mg/l			<0.2	
Boron	mg/l			0.431	
Calcium	mg/l			422.9	
Potassium	mg/l			19.7	
Sodium	mg/l			42.2	
Magnesium	mg/l			32.1	
Orthophosphate	mg/l			<0.06	
Sulphate	mg/l			659.9	
Mercury	mg/l			<0.001	
Cadmium	µg/l			<0.5	
Chromium	mg/l			<0.0015	
Copper	µg/l			<7	
Iron	µg/l			<20	
Manganese	µg/l			7	
Lead	µg/l			<5	
Nickel	µg/l			3	
Zinc	µg/l			7	
VOC	µg/l			ND	
SVOC	µg/l			ND	
Pesticides	µg/l			ND	
Total Coliforms	cfu/100ml			0	
Faecal Coliforms	cfu/100ml			0	

Groundwater Results 2017 Fassaroe W0053-03: BH-5

Parameter	Units	1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017
Temperature	°C	10.5	11.7	15.7	10.3
Chloride	mg/l	36	41.4	41.8	41.1
Ammoniacal Nitrogen -N	mg/l	<0.03	<0.03	0.03	<0.03
Conductivity	mS/cm	1.391	1.318	1.345	1.277
Dissolved Oxygen	mg/l	8	8	8	5
pH	pH Units	7.28	7.2	6.53	7.17
Nitrate	mg/l			3.6	
Boron	mg/l			0.192	
Calcium	mg/l			254.7	
Potassium	mg/l			10.4	
Sodium	mg/l			35.8	
Magnesium	mg/l			13.7	
Orthophosphate	mg/l			<0.06	
Sulphate	mg/l			320.6	
Mercury	mg/l			<0.001	
Cadmium	µg/l			<0.5	
Chromium	mg/l			<0.0015	
Copper	µg/l			<7	
Iron	µg/l			<20	
Manganese	µg/l			<2	
Lead	µg/l			<5	
Nickel	µg/l			<2	
Zinc	µg/l			<3	
VOC	µg/l			ND	
SVOC	µg/l			ND	
Pesticides	µg/l			ND	
Total Coliforms	cfu/100ml			0	
Faecal Coliforms	cfu/100ml			0	

Groundwater Results 2017 Fassaroe W0053-03: BH-7

Parameter	Units	1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017
Temperature	°C	10	10.8	11.3	10.6
Chloride	mg/l	27.6	29.5	28.2	28.4
Ammoniacal Nitrogen -N	mg/l	0.52	0.34	0.32	0.33
Conductivity	mS/cm	0.695	0.585	0.613	0.633
Dissolved Oxygen	mg/l	3	5	6	4
pH	pH Units	7.2	7.25	6.84	7.18
Nitrate	mg/l			2.7	
Boron	mg/l			0.028	
Calcium	mg/l			108.7	
Potassium	mg/l			2.6	
Sodium	mg/l			17	
Magnesium	mg/l			9.4	
Orthophosphate	mg/l			<0.06	
Sulphate	mg/l			32.6	
Mercury	mg/l			<0.001	
Cadmium	µg/l			<0.5	
Chromium	mg/l			<0.0015	
Copper	µg/l			<7	
Iron	µg/l			614	
Manganese	µg/l			1193	
Lead	µg/l			<5	
Nickel	µg/l			2	
Zinc	µg/l			3	
VOC	µg/l			ND	
SVOC	µg/l			ND	
Pesticides	µg/l			ND	
Total Coliforms	cfu/100ml			>80	
Faecal Coliforms	cfu/100ml			>80	

SURFACE WATER SUMMARY TABLES

Surfacewater Results 2017 Fassaroe W0053-03: SW-1

Parameter	Units	1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017
Temperature	°C	6.9	11.0	13.7	6.6
Chloride	mg/l	30.1	27.1	59.3	27.8
COD	mg/l	<7	<7	<7	23
BOD	mg/l	<1	1	<1	1
Ammoniacal Nitrogen -N	mg/l	0.03	<0.03	0.02	<0.03
Tot. Susp. Solids	mg/l	17	<10	<10	<10
Conductivity	mS/cm	0.652	0.494	0.5	0.58
Dissolved Oxygen	mg/l	11	10	8	11
pH	pH Units	8.11	8.21	7.56	8.01
Nitrate	mg/l	-	-	14.1	-
Calcium	mg/l	-	-	100.3	-
Magnesium	mg/l	-	-	8.9	-
Orthophosphate	mg/l	-	-	<0.06	-
Sulphate	mg/l	-	-	24.2	-
Mercury	µg/l	-	-	<1	-
Potassium	mg/l	-	-	1.6	-
Sodium	mg/l	-	-	15.8	-
Boron	mg/l	-	-	0.022	-
Cadmium	µg/l	-	-	<0.5	-
Chromium	mg/l	-	-	<0.0015	-
Copper	µg/l	-	-	<7	-
Iron	µg/l	-	-	<20	-
Manganese	µg/l	-	-	12	-
Nickel	µg/l	-	-	<2	-
Lead	µg/l	-	-	<5	-
Zinc	µg/l	-	-	<3	-
VOC	µg/l	-	-	ND	-
SVOC	µg/l	-	-	ND	-
Pesticides	µg/l	-	-	ND	-
Total Coliforms	cfu/100ml	-	-	>100	-
Faecal Coliforms	cfu/100ml	-	-	>100	-

- Not Required

Surfacewater Results 2017 Fassaroe W0053-03: SW-2

Parameter	Units	1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017
Temperature	°C	7.0	10.5	14.0	6.2
Chloride	mg/l	30.6	26.9	25.9	27.8
COD	mg/l	<7	<7	<7	8
BOD	mg/l	<1	1	<1	<1
Ammoniacal Nitrogen -N	mg/l	0.04	<0.03	0.02	<0.03
Tot. Susp. Solids	mg/l	<10	<10	<10	<10
Conductivity	mS/cm	0.632	0.524	0.482	0.556
Dissolved Oxygen	mg/l	11	10	9	11
pH	pH Units	8.13	8.19	7.41	8.1
Nitrate	mg/l	-	-	15	-
Calcium	mg/l	-	-	98.3	-
Magnesium	mg/l	-	-	9	-
Orthophosphate	mg/l	-	-	<0.06	-
Sulphate	mg/l	-	-	21.4	-
Mercury	µg/l	-	-	<1	-
Potassium	mg/l	-	-	1.6	-
Sodium	mg/l	-	-	15.8	-
Boron	mg/l	-	-	0.021	-
Cadmium	µg/l	-	-	<0.5	-
Chromium	mg/l	-	-	<0.0015	-
Copper	µg/l	-	-	<7	-
Iron	µg/l	-	-	<20	-
Manganese	µg/l	-	-	6	-
Nickel	µg/l	-	-	<2	-
Lead	µg/l	-	-	<5	-
Zinc	µg/l	-	-	<3	-
VOC	µg/l	-	-	ND	-
SVOC	µg/l	-	-	ND	-
Pesticides	µg/l	-	-	ND	-
Total Coliforms	cfu/100ml	-	-	>100	-
Faecal Coliforms	cfu/100ml	-	-	>100	-

- Not Required

Surfacewater Results 2017 Fassaroe W0053-03: SW-3

Parameter	Units	1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017
Temperature	°C	7.0	10.8	13.9	5.9
Chloride	mg/l	30.8	27.4	26.2	27.7
COD	mg/l	<7	<7	<7	9
BOD	mg/l	<1	1	<1	1
Ammoniacal Nitrogen -N	mg/l	0.03	<0.03	0.02	<0.03
Tot. Susp. Solids	mg/l	<10	<10	13	<10
Conductivity	mS/cm	0.64	0.511	0.513	0.538
Dissolved Oxygen	mg/l	11	10	9	11
pH	pH Units	8.15	8.19	7.41	8.13
Nitrate	mg/l	-	-	15.4	-
Calcium	mg/l	-	-	97.3	-
Magnesium	mg/l	-	-	8.9	-
Orthophosphate	mg/l	-	-	<0.06	-
Sulphate	mg/l	-	-	21.6	-
Mercury	µg/l	-	-	<1	-
Potassium	mg/l	-	-	1.6	-
Sodium	mg/l	-	-	15.8	-
Boron	mg/l	-	-	0.021	-
Cadmium	µg/l	-	-	<0.5	-
Chromium	mg/l	-	-	<0.0015	-
Copper	µg/l	-	-	<7	-
Iron	µg/l	-	-	<20	-
Manganese	µg/l	-	-	6	-
Nickel	µg/l	-	-	<2	-
Lead	µg/l	-	-	<5	-
Zinc	µg/l	-	-	<3	-
VOC	µg/l	-	-	ND	-
SVOC	µg/l	-	-	ND	-
Pesticides	µg/l	-	-	ND	-
Total Coliforms	cfu/100ml	-	-	0	-
Faecal Coliforms	cfu/100ml	-	-	0	-

- Not Required

Surfacewater Results 2017 Fassaroe W0053-03: SW-4

Parameter	Units	1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017
Temperature	°C	6.9	10.7	14.4	6.2
Chloride	mg/l	30.8	27	26.1	27.9
COD	mg/l	<7	<7	<7	20
BOD	mg/l	1	1	<1	<1
Ammoniacal Nitrogen -N	mg/l	0.03	<0.03	0.02	<0.03
Tot. Susp. Solids	mg/l	<10	<10	<10	<10
Conductivity	mS/cm	0.653	0.525	0.491	0.555
Dissolved Oxygen	mg/l	11	10	8	11
pH	pH Units	8.14	8.24	7.48	8.14
Nitrate	mg/l	-	-	15.2	-
Calcium	mg/l	-	-	97.9	-
Magnesium	mg/l	-	-	8.9	-
Orthophosphate	mg/l	-	-	<0.06	-
Sulphate	mg/l	-	-	22.5	-
Mercury	µg/l	-	-	<1	-
Potassium	mg/l	-	-	1.6	-
Sodium	mg/l	-	-	16	-
Boron	mg/l	-	-	0.0025	-
Cadmium	µg/l	-	-	<0.5	-
Chromium	mg/l	-	-	<0.0015	-
Copper	µg/l	-	-	<7	-
Iron	µg/l	-	-	<20	-
Manganese	µg/l	-	-	7	-
Nickel	µg/l	-	-	<2	-
Lead	µg/l	-	-	<5	-
Zinc	µg/l	-	-	<3	-
VOC	µg/l	-	-	ND	-
SVOC	µg/l	-	-	ND	-
Pesticides	µg/l	-	-	ND	-
Total Coliforms	cfu/100ml	-	-	>100	-
Faecal Coliforms	cfu/100ml	-	-	>100	-

- Not Required

Surfacewater Results 2017 Fassaroe W0053-03: SW-5

Parameter	Units	1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017
Temperature	°C	7.4	Dry	14.7	Dry
Chloride	mg/l	48.1	Dry	6.9	Dry
COD	mg/l	23	Dry	<7	Dry
BOD	mg/l	3	Dry	<1	Dry
Ammoniacal Nitrogen -N	mg/l	0.07	Dry	0.11	Dry
Tot. Susp. Solids	mg/l	22	Dry	12	Dry
Conductivity	mS/cm	0.974	Dry	0.136	Dry
Dissolved Oxygen	mg/l	11	Dry	6	Dry
pH	pH Units	8.04	Dry	6.86	Dry
Nitrate	mg/l	-	-	32.4	-
Calcium	mg/l	-	-	30.9	-
Magnesium	mg/l	-	-	1.1	-
Orthophosphate	mg/l	-	-	1.43	-
Sulphate	mg/l	-	-	11.5	-
Mercury	µg/l	-	-	<1	-
Potassium	mg/l	-	-	2.5	-
Sodium	mg/l	-	-	2.8	-
Boron	µg/l	-	-	0.0021	-
Cadmium	µg/l	-	-	<0.5	-
Chromium	mg/l	-	-	<0.0015	-
Copper	µg/l	-	-	<7	-
Iron	µg/l	-	-	709	-
Manganese	µg/l	-	-	4	-
Nickel	µg/l	-	-	<2	-
Lead	µg/l	-	-	<5	-
Zinc	µg/l	-	-	15	-
VOC	µg/l	-	-	ND	-
SVOC	µg/l	-	-	ND	-
Pesticides	µg/l	-	-	ND	-
Total Coliforms	cfu/100ml	-	-	>100	-
Faecal Coliforms	cfu/100ml	-	-	>100	-

- Not Required

WASTEWATER SUMMARY TABLES

Wastewater Results 2017 Fassaroe W0053-03: SE-1

Parameter	units	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
pH	pH Units	Dry	7.17	7.37	*	*	*	Dry	7.4	7.2	Dry	7.32	7.3
Temperature	°C	Dry	6.7	7.0	*	*	*	Dry	17.2	13.9	Dry	6.5	6.6
BOD	mg/l	Dry	22	52	*	*	*	Dry	20	78	Dry	140	199
COD	mg/l	N/A	113	N/A	N/A	*	N/A	N/A	103	N/A	Dry	332	N/A
Sulphate	mg/l	N/A	344.3	N/A	N/A	*	N/A	N/A	400.5	NA	Dry	646.2	NA
TSS	mg/l	N/A	442	96	N/A	*	N/A	N/A	81	NA	Dry	735	1,292
Surfactants	mg/l	N/A	0.9	N/A	N/A	*	N/A	N/A	2	NA	Dry	208	2
Oils, Fats & Greases	mg/l	N/A	1	N/A	N/A	*	N/A	N/A	0.65	NA	Dry	<0.01	NA
Mineral Oil	mg/l	N/A	1	N/A	N/A	*	N/A	N/A	0.65	NA	Dry	<0.01	NA

N/A - Not Applicable

* - No Discharge following fire at installation

LANDFILL GAS SUMMARY TABLES

Landfill Gas Results 2017 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Trigger
Sample Station Number	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	**CH_4 (% v/v)**	Level (% v/v)
GS-01	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
GS-05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
GS-07*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.0
GS-08*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.0
GS-09*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.0
GS-10*	0.0	0.0	**	**	**	**	**	**	**	**	**	**	1.0
GS-11*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
BH-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
BH-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
BH-6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
BH-7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
L-03*	0.0	0.0	0.4	0.0	0.4	0.0	0.3	0.5	0.0	0.5	0.0	0.0	1.0

* - Wells located in former fill area ** - well damaged

Landfill Gas Results 2017 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Trigger
Sample Station Number	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	**CO_2 (% v/v)**	Level (% v/v)
GS-01	0.0	2.5	3.1	1.2	2.5	0.4	5.3	1.0	3.6	2.1	1.8	0.5	1.5
GS-05	0.0	0.0	1.6	0.2	1.6	0.1	1.8	1.2	0.0	2.1	0.0	0.0	1.5
GS-07*	0.0	0.0	9.1	0.0	2.5	12.0	0.0	2.0	0.4	14.0	0.1	0.0	1.5
GS-08*	0.0	0.0	3.7	3.9	5.0	0.0	5.6	7.3	0.0	6.3	0.0	0.0	1.5
GS-09*	2.9	5.0	4.9	7.2	6.0	8.3	7.6	11.0	9.2	8.4	8.1	3.4	1.5
GS-10*	0.0	0.0	**	**	**	**	**	**	**	**	**	**	1.5
GS-11*	3.5	5.3	4.7	8.6	4.0	3.6	7.6	4.4	12.0	8.6	5.0	2.7	1.5
BH-2	0.0	0.8	0.0	0.4	0.0	0.4	1.2	0.0	1.6	0.0	1.4	0.7	1.5
BH-5	0.0	0.0	1.5	0.7	0.0	0.0	1.6	1.7	0.1	2.9	0.4	0.0	1.5
BH-6	0.0	1.9	1.7	1.6	1.9	0.0	1.8	1.8	0.0	1.8	1.2	0.7	1.5
BH-7	0.0	0.4	1.5	1.0	0.5	0.0	0.9	0.2	0.2	1.3	1.7	0.3	1.5
L-03*	0.0	0.0	9.3	1.3	8.8	0.0	10.0	9.3	0.0	12.0	0.4	0.0	1.5

* - Wells located in former fill area ** - well damaged

Landfill Gas Results 2017 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Station Number	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (% v/v)**	**O_2 (%v/v)**
GS-01	20.9	15.3	14.2	19.3	17.8	20.2	12.2	20.2	14.0	17.4	18.9	20.7
GS-05	21.0	21.3	19.6	20.7	19.5	20.9	17.8	18.2	21.2	17.6	21.6	21.5
GS-07*	21.3	21.2	9.8	21.0	17.7	6.5	21.0	18.7	21.2	6.0	21.5	21.4
GS-08*	21.2	21.2	16.9	15.7	14.4	20.8	13.4	13.8	21.1	13.3	21.5	21.4
GS-09*	19.2	14.9	15.1	10.4	13.0	7.9	10.9	6.3	9.4	8.1	10.9	18.9
GS-10*	21.3	21.3	**	**	**	**	**	**	**	**	**	**
GS-11*	18.9	14.7	15.0	9.5	10.4	16.2	12.5	15.9	8.3	11.6	17.6	19.2
BH-2	21.0	19.9	21.2	20.0	21.0	20.3	18.5	21.7	16.9	21.2	18.9	21.1
BH-5	21.0	21.7	18.6	19.4	21.2	21.0	17.8	17.9	21.1	13.6	21.1	21.5
BH-6	21.0	19.0	18.8	18.9	18.5	20.9	17.9	18.0	21.2	17.0	19.9	20.5
BH-7	20.9	21.0	19.8	19.3	20.9	21.1	19.7	21.9	21.2	18.4	19.0	21.3
L-03*	21.1	20.9	12.8	19.2	3.9	20.7	3.0	4.0	21.0	1.2	21.0	21.3

* - Wells located in former fill area ** - well damaged

Landfill Gas Results 2017 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Station Number	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**
GS-01	1029	1016	1016	1014	1008	1008	995	1012	1008	993	1016	1026
GS-05	1029	1016	1016	1014	1008	1008	995	1012	1008	993	1016	1026
GS-07*	1028	1016	1014	1014	1008	1008	995	1012	1008	994	1016	1026
GS-08*	1028	1016	1016	1014	1008	1008	995	1012	1008	994	1016	1026
GS-09*	1028	1016	1016	1014	1008	1008	995	1012	1008	994	1016	1026
GS-10*	1028	1016	**	**	**	**	**	**	**	**	**	**
GS-11*	1029	1016	1016	1014	1008	1008	995	1012	1008	994	1016	1026
BH-2	1029	1016	1016	1014	1008	1008	995	1012	1008	993	1016	1026
BH-5	1029	1016	1016	1014	1008	1008	995	1012	1008	993	1016	1026
BH-6	1029	1016	1014	1014	1008	1008	995	1012	1008	994	1016	1026
BH-7	1029	1016	1016	1014	1008	1008	995	1012	1008	993	1016	1026
L-03*	1029	1016	1016	1014	1008	1008	995	1012	1008	994	1016	1026

* - Wells located in former fill area ** - well damaged

DUST SUMMARY TABLES

Dust Results 2017 Fassaroe W0053-03

	DS-01	DS-02	DS-03	DS-04	DS-05
Jan-17	118.77	11.78	18.06	12.74	-
Feb-17	949	97	86	28	-
Mar-17	*	*	105	<10	-
Apr-17	*	*	180	<10	-
May-17	*	*	229	97	-
Jun-17	*	271	327	20	-
Jul-17	*	299	240	76	-
Aug-17	180	222	196	54	-
Sep-17	206	*	222	48	-
Oct-17	286	*	291	237	-
Nov-17	37	62	118	133	-
Dec-17	129	96	72	105	167

* - Dust gauge contaminated

NOISE SUMMARY TABLES

Noise Results 2017 Fassaroe W0053-03

Station	Date	Time	Wind vector	$L_{Aeq\ 30\ min}$ dB	$L_{AF10\ 30\ min}$ dB	$L_{AF90\ 30\ min}$ dB	Specific $L_{Aeq\ 30\ min}$ dB
N1 day 1/3	10.08.17	0854-0924	+	61	61	47	61
	Facility: Occasional vehicle movements through site gate dominant, including trucks sporadically idling on weighbridge. Operations within site continuously quite audible, chiefly trucks and mobile plant on yards, with SRF shredder audible at low level. **Extraneous**: M11 traffic continuously slightly audible in background, almost entirely masked by site noise. Local birdsong. Aircraft. Intermittent traffic through roundabout outside entrance clearly audible. Hammering sporadically audible at construction project to NE. **Specific $L_{Aeq\ T}$ determination**: Leq considered representative.						
N1 day 2/3	10.08.17	1129-1159	+	59	59	45	59
	Facility: As previous. **Extraneous**: As previous. **Specific $L_{Aeq\ T}$ determination**: As previous.						
N1 day 3/3	10.08.17	1414-1444	+	62	62	45	62
	Facility: As previous. Weighbridge area noticeably busier during first 15 min due to increased truck activity, generally masking operational noise. **Extraneous**: As previous, although greater masking by weighbridge trucks. **Specific $L_{Aeq\ T}$ determination**: As previous.						
N2 day 1/3	10.08.17	0923-0953	+	56	59	49	56
	Facility: Occasional vehicle movements through site gate dominant, particularly trucks sporadically idling on weighbridge. Several local carpark car movements clearly audible. Operations within site continuously quite audible, chiefly trucks and mobile plant on yards, with **Extraneous**: M11 traffic continuously slightly audible in background, almost entirely masked by site noise. Bird song/calls and aircraft. Hammering sporadically audible at construction project to NE. **Specific $L_{Aeq\ T}$ determination**: Leq considered representative.						
N2 day 2/3	10.08.17	1057-1127	+	57	60	48	57
	Facility: As previous. **Extraneous**: As previous. **Specific $L_{Aeq\ T}$ determination**: As previous.						
N2 day 3/3	10.08.17	1411-1441	+	50	51	41	50
	Facility: As previous, with occasional periods of queuing at weighbridge masking all other sources. Tractor with bowser clearly audible on occasion. **Extraneous**: As previous. **Specific $L_{Aeq\ T}$ determination**: As previous.						

N3 day 1/3	10.08.17	0933-1003	+	47	49	42	<47
	Facility: Site operations continuously audible, chiefly grab in C+I building audible at low level, in addition to mobile plant and trucks around yards quite audible. Wood shredding operations slightly audible. Several car movements in carpark clearly audible. **Extraneous**: M11 traffic continuously slightly audible in background. Loudest Thornhill Road traffic audible. Bird song/calls and aircraft. Hammering sporadically clearly audible at construction project to E. **Specific $L_{Aeq\ T}$ determination**: L90 representative of grab emissions. Amplitude and intermittency of other onsite sources insufficient to influence Leq, thus other sources <Leq.						
N3 day 2/3	10.08.17	1207-1237	+	45	47	42	<45
	Facility: As previous. **Extraneous**: As previous. **Specific $L_{Aeq\ T}$ determination**: As previous.						
N3 day 3/3	10.08.17	1530-1600	+	45	48	41	<45
	Facility: Site operations continuously audible at low level, from in-building operations and wood shredding area. Mobile plant and trucks around yards quite audible. Several car movements in carpark clearly audible. **Extraneous**: As previous. Strimmer in occasional use at dwelling outside boundary clearly audible. **Specific $L_{Aeq\ T}$ determination**: As previous.						
N4 day 1/3	10.08.17	1002-1032	x	39	40	36	<36
	Facility: Grab in C+I building slightly audible towards end of interval. **Extraneous**: Water flow in valley floor and lightly rustling vegetation continuously quite audible, with M11 traffic also audible at low level. These sources masking all others apart from local bird song/calls. **Specific $L_{Aeq\ T}$ determination**: Considered <L90.						
N4 day 2/3	10.08.17	1209-1239	x	38	38	36	<36
	Facility: C+I grab continuously slightly audible. **Extraneous**: As previous. **Specific $L_{Aeq\ T}$ determination**: As previous.						
N4 day 3/3	10.08.17	1527-1557	x	37	38	35	<35
	Facility: As previous. **Extraneous**: As previous. **Specific $L_{Aeq\ T}$ determination**: As previous.						

NSL1 day 1/3	10.08.17	0849-0919	+	48	50	43	48
	Facility: Occasional vehicle movements through site gate dominant, including trucks sporadically idling on weighbridge. Operations within site continuously quite audible, chiefly trucks and mobile plant on yards, with SRF shredder audible at low level. **Extraneous**: M11 traffic continuously slightly audible in background. Occasional Thornhill Road traffic clearly audible. Birdsong/calls and aircraft. Hammering sporadically audible at construction project to NE. **Specific $L_{Aeq\,T}$ determination**: Leq considered representative.						
NSL1 day 2/3	10.08.17	1132-1202	+	47	49	43	47
	Facility: As previous. **Extraneous**: As previous. **Specific $L_{Aeq\,T}$ determination**: As previous.						
NSL1 day 3/3	10.08.17	1448-1518	+	54	56	45	54
	Facility: As previous. Weighbridge area noticeably busier during first 15 min due to increased truck activity, generally masking operational noise. **Extraneous**: As previous, although greater masking by weighbridge trucks. **Specific $L_{Aeq\,T}$ determination**: As previous.						
NSL2 day 1/3	10.08.17	0810-0840	+	55	51	44	<44
	Facility: Loader reversing alarm audible at low level. Truck movements through weighbridge audible at low level when present. In-building operations and/or wood shredding operations slightly audible during lulls in ambient soundscape. **Extraneous**: Occasional passing traffic dominant when present. M11 traffic slightly audible continuously. Bird song/calls and aircraft. Sporadic construction noise audible 100 m N. **Specific $L_{Aeq\,T}$ determination**: Leq outside local traffic influenced by site and extraneous sources including M11. Not possible to assign contributions. Thus specific Leq < ambient Leq outside traffic, with near field correction.						
NSL2 day 2/3	10.08.17	1013-1043	+	57	51	42	<42
	Facility: Truck movements through weighbridge and on yard areas audible at low level. In-building and/or wood shredding operations faintly discernible. **Extraneous**: As previous. **Specific $L_{Aeq\,T}$ determination**: As previous.						
NSL2 day 3/3	10.08.17	1326-1356	+	61	57	42	<43
	Facility: Loader reversing alarm audible at low level. Truck movements through weighbridge audible at low level when present. In-building operations and/or wood shredding operations slightly audible during lulls in ambient soundscape. **Extraneous**: Occasional passing traffic dominant when present. M11 traffic slightly audible continuously. Bird song/calls and aircraft. Sporadic construction noise audible 100 m N, including occasional excavator activity quite audible. **Specific $L_{Aeq\,T}$ determination**: As previous.						
N_{RM}	10.08.17	1051-1121	+	46	48	43	<46
	Facility: Grab in C+I building audible at low level continuously. Loader and truck movements on nearest yard areas occasionally quite audible. Several car movements in carpark clearly audible. **Extraneous**: M11 traffic continuously slightly audible in background. Loudest Thornhill Road traffic audible. Bird song/calls and aircraft. Hammering sporadically clearly audible at construction project to E. **Specific $L_{Aeq\,T}$ determination**: L90 representative of grab emissions. Amplitude and intermittency of other onsite sources partially contributing to Leq. Specific Leq considered < ambient Leq.						

LEACHATE SUMMARY TABLES

Leachate Level Results 2016 Fassaroe W0053-03

	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
L-03	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
GS-07	7.57	7.60	7.56	7.60	7.60	7.56	7.56	7.56	7.55	7.59	7.61	7.6
GS-08	8.94	9.28	9.17	9.12	9.19	9.17	9.16	9.30	9.16	9.2	9.22	9.21

Leachate Analysis Q1 2017

Parameters	Units	GS-07	GS-08
BOD	mg/l	6	<1
COD	mg/l	7	<7

Leachate Analysis Q2 2017

Parameters	Units	GS-07	GS-08
BOD	mg/l	5	1
COD	mg/l	7	<7

Leachate Analysis Q3 2017

Parameters	Units	GS-07	GS-08
Boron	ug/l	81	56
Cadmium	ug/l	<0.5	<0.5
Calcium	mg/l	232.8	188.3
Chromium	ug/l	<1.5	<1.5
Copper	ug/l	<7	<7
Iron	ug/l	<20	<20
Lead	ug/l	<5	<5
Magnesium	mg/l	18.7	16.3
Manganese	ug/l	347	20
Mercury	ug/l	<1	<1
Nickel	ug/l	18	2
Potassium	mg/l	5.6	3.3
Sodium	mg/l	15.2	12.7
Zinc	ug/l	805	11
Fluoride	mg/l	<0.3	<0.3
Sulphate	mg/l	57.1	77.2
Chloride	mg/l	17.7	14.9
Ortho Phosphate	mg/l	<0.06	<0.06
Total Oxidised Nitrogen	mg/l	<0.2	<0.2
Total Cyanide	mg/l	<0.01	0.02
Ammonia	mg/l	0.45	0.18
BOD	mg/l	<1	2
COD	mg/l	<7	<7
Electrical Conductivity	uS/cm	1162	990
pH	pH units	7.09	7.08
VOC	ug/l	ND	ND
sVOC	ug/l	ND	ND
Pesticides	ug/l	ND	0.04*

ND – denotes not present at levels greater than the detection limit

Leachate Analysis Q4 2017

Parameters	Units	GS-07	GS-08
BOD	mg/l	9	1
COD	mg/l	16	11

APPENDIX 2

European Pollutant Release and Transfer Register

| PRTR# : W0053 | Facility Name : Starrus Eco Holdings Limited (Fassaroe) | Filename : W0053_2017.xls | Return Year : 2017 |

Environmental Protection Agency

Guidance to completing the PRTR workbook

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2017

1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	Starrus Eco Holdings Limited (Fassaroe)
PRTR Identification Number	W0053
Licence Number	W0053-03

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Bray Depot
Address 2	La Vallee House
Address 3	Fassaroe
Address 4	Bray
	Wicklow
Country	Ireland
Coordinates of Location	-6.141357577 53.19976882
River Basin District	IEEA
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Sara Smyth
AER Returns Contact Email Address	sara.smyth@greenstar.ie
AER Returns Contact Position	Environmental Engineer
AER Returns Contact Telephone Number	01 2746236
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	50
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4. 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) ?	

4.1 RELEASES TO AIR

Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
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 AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
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 AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
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

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: Starrus Eco Holdings Limited (Fassaroe)

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used: Method Code	Method Used: Designation or Description	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

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 t

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used					
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					QUANTITY			
			Method Used					
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					QUANTITY			
			Method Used					
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

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			
			Method Used					
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 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			
			Method Used		SE-1			
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
303	BOD	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	1461.886	1461.886	0.0	0.0
306	COD	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	3135.473	3135.473	0.0	0.0
308	Detergents (as MBAS)	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	913.6071	913.6071	0.0	0.0
314	Fats, Oils and Greases	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	14.16113	14.16113	0.0	0.0
324	Mineral oils	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	14.16113	14.16113	0.0	0.0
343	Sulphate	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	7958.838	7958.838	0.0	0.0
240	Suspended Solids	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	9083.718	9083.718	0.0	0.0
					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

4.4 RELEASES TO LAND

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND					Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
			Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	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)

RELEASES TO LAND					Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
			Method Used				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	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

Please enter all quantities on this sheet in Tonnes

0

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 Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	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					
Within the Country	15 01 01	No	835.38	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Irish Packaging & Recycling,W0263-01	Ballymount Road,Walkinstown,Dublin 12,,Ireland		
Within the Country	15 01 02	No	122.562	plastic packaging	R3	M	Weighed	Offsite in Ireland	Cloughwater Plastics Ireland Ltd,WFP-FG-08-002-04	Rosemount Business Park,Ballycoolin,Dublin 11,,Ireland		
Within the Country	15 01 02	No	37.68	plastic packaging	R3	M	Weighed	Offsite in Ireland	Leinster Environmentals,WP 2008/06	Clermont Business Park,Haggardstown,Dundalk ,Co. Louth,Ireland		
To Other Countries	15 01 02	No	8.18	plastic packaging	R3	M	Weighed	Abroad	Irish Polymer Extrusions,WFP-LS-13-0001-01	Mountmellick,Co. Laois,,,,Ireland		
Within the Country	15 01 02	No	19.36	plastic packaging	R3	M	Weighed	Offsite in Ireland	Irish Packaging & Recycling,W0263-01	Ballymount Road,Walkinstown,Dublin 12,,Ireland		
Within the Country	15 01 04	No	3.08	metallic packaging	R4	M	Weighed	Offsite in Ireland	Nurendale Limited,W0039-02	Ballymount Cross,Tallaght,Dublin 24,,Ireland		
Within the Country	15 01 04	No	11.68	metallic packaging	R4	M	Weighed	Offsite in Ireland	Nurendale Limited,W0140-04	Rathdrinagh,Bequparc,Navan,Co. Meath,Ireland		
Within the Country	15 01 06	No	12.22	mixed packaging	R13	M	Weighed	Offsite in Ireland	Dublin City Council,W0238-01	Merrywell Industrial Estate,Ballymount Road Lower,Ballymount ,Dublin 12,Ireland		
Within the Country	16 05 04	Yes	1.38	gases in pressure containers (including halons) containing dangerous substances	R4	M	Weighed	Offsite in Ireland	Harbour Trading Company,N/A	Harbour Industrial Estate,Harbour Road,Bray,Co. Wicklow,Ireland	Harbour Trading Company,N/A,Harbour Industrial Estate,Harbour Road,Bray,Co. Wicklow,Ireland	Harbour Industrial Estate,Harbour Road,Bray,Co. Wicklow,Ireland
Within the Country	16 05 04	Yes	0.5	gases in pressure containers (including halons) containing dangerous substances	R4	M	Weighed	Offsite in Ireland	Calor Gas,N/A	Long Mile Road,Drimnagh,Dublin,,,Ireland	Calor Gas,N/A,Long Mile Road,Drimnagh,Dublin,,,Ireland	Long Mile Road,Drimnagh,Dublin,,,Ireland
Within the Country	16 06 01	Yes	1.611	lead batteries	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd.,W0113-04	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,ireland	KMK Metals Recycling,W0113-04,Cappincur Industrial Estate,Daingean Road,Tullamore,County Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,County Offaly,Ireland
Within the Country	17 09 04	No	5477.92	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	Nurendale Limited,W0140-04	Rathdrinagh,Bequparc,Navan,Co. Meath,Ireland		
Within the Country	19 05 01	No	2315.72	non-composted fraction of municipal and similar wastes	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,,Ireland		
Within the Country	19 05 03	No	7140.141	off-specification compost	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,,Ireland		
Within the Country	19 08 01	No	13.98	screenings	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,,Ireland		
Within the Country	19 08 02	No	4.2	waste from desanding	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,,Ireland		
Within the Country	19 12 07	No	2623.48	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Thorntons Recycling Centre Limited,W0210-01	Pass of Kilbride,Milltownpass,Co. Westmeath,,Ireland		

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 Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	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					
Within the Country	19 12 09	No	3490.82	minerals (for example sand, stones)	R11a	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	19 12 09	No	8970.44	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Marrakesh Landfill,W0048-01	Kilmurry South ,Bray ,Co Wicklow ,.,ireland		
Within the Country	19 12 10	No	2149.04	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	Irish Cement,P0030-04	Platin Works,Drogheda,Co.Louth,.,Ireland		
Within the Country	19 12 10	No	5844.4	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	Nurendale Limited,W0140-04	Rathdrinagh,Bequparc,Navan,Co. Meath,Ireland		
Within the Country	19 12 10	No	2227.46	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Limited,W0183-01	Millennium Business Park,Grange,Ballycoolin,Dublin 11,Ireland		
Within the Country	19 12 10	No	7462.18	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	Lagan Cement,P0487-07	Killaskillen,Kinnegad,Co. Meath,.,Ireland		
Within the Country	19 12 12	No	1632.49	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03	Carbury ,Co Kildare ,-,-,Ireland		
Within the Country	19 12 12	No	43.02	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R3	M	Weighed	Offsite in Ireland	South Dublin County Council,W0003-03	Ballymount Baling Station,Ballymount Road,Walkinstown ,Dublin 12,Ireland		
Within the Country	19 12 12	No	23121.44	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	19 12 12	No	12601.21	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	Nurendale Limited,W0140-04	Rathdrinagh,Bequparc,Navan,Co. Meath,Ireland		
Within the Country	19 12 12	No	4523.1	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D5	M	Weighed	Offsite in Ireland	Knockharley Landfill Limited,W0146-02	Kentstown ,Co. Meath ,-,-,Ireland		
Within the Country	19 12 10	No	1158.56	combustible waste (refuse derived fuel)	R3	M	Weighed	Offsite in Ireland	Quinn Cement,P0378-04	Scotchtown,Ballyconnel,Co. Cavan,.,Ireland		
Within the Country	20 01 08	No	49.82	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03	Carbury ,Co Kildare ,-,-,Ireland		
Within the Country	20 01 08	No	1996.1	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Waddocks Composting,WP11/04 & WP 01/02	Killamaster,Co. Carlow,.,.,Ireland		
Within the Country	20 01 08	No	29.98	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Acorn Recycling Ltd.,W0249-01	Ballybeg,Littleton,Co. Tipperary,.,Ireland	MLM (ACN Europe) Ltd.,IRE/G022/11,.,.,.,.,United Kingdom	.,.,.,.,United Kingdom
Within the Country	20 01 38	No	33.76	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	O'Toole Composting Limited,W0284-01	Ballintrane,Fenagh,Co. Carlow,.,Ireland	Multi Metals ,WFP-WW-09-0014-01	Blessington ,Co Wicklow ,.,.,ireland
Within the Country	20 01 38	No	5.3	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Thorntons Recycling Centre Limited,W0210-01	Pass of Kilbride,Milltownpass,Co. Westmeath,.,Ireland		
Within the Country	20 01 39	No	0.62	plastics	R3	M	Weighed	Offsite in Ireland	North Chemicals,NA	Unit 6C Malahide Road Industrial Park ,Coolock , Dublin 17.,-,Ireland		
Within the Country	20 01 39	No	8.45	plastics	R3	M	Weighed	Offsite in Ireland	Dublin City Council,W0238-01	Merrywell Industrial Estate,Ballymount Road Lower,Ballymount ,Dublin 12,Ireland		

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 Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	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					
Within the Country	20 01 40	No	506.2	metals	R4	M	Weighed	Offsite in Ireland	Davis Recycling Ltd,W0134-01	10 The Anchorage Business Park,Charlotte Quay,Dublin 4,,,Ireland		
Within the Country	20 01 40	No	7.32	metals	R4	M	Weighed	Offsite in Ireland	ClearcirIce,WCP-LK-08-589-01	ClearCircle Metals (Limerick) Ltd ,Ballysimon Road ,Limerick,,,ireland		
Within the Country	20 01 40	No	3346.189	metals	R4	M	Weighed	Offsite in Ireland	Multi Metals ,WFP-WW-09-0014-01	Blessington ,Co Wicklow ,,,,,ireland		
Within the Country	20 01 40	No	60.0	metals	R4	M	Weighed	Offsite in Ireland	St Margarets Recycling & Transfer Centre,WFP-FG-13-0002-01	Sandyhills,St. Margarets,Co. Dublin,,,Ireland		
Within the Country	20 02 01	No	302.58	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Enrich Environmental,WMP 2004/57	Kilcock Co. Kildare,,,,,,,Ireland		
Within the Country	20 02 01	No	438.52	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Bord na Mona.,W0198-01	Kilberry,Athy,Co. Kildare,-,Ireland		
Within the Country	20 02 01	No	551.4	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03	Carbury ,Co Kildare ,-,-,Ireland		
Within the Country	20 03 01	No	7783.04	mixed municipal waste	R1	M	Weighed	Offsite in Ireland	Covanta,W0232-01	Pigeon House Road,Poolbeg Peninsula,Dublin 4,-,Ireland		
Within the Country	20 03 01	No	1250.92	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03	Carbury ,Co Kildare ,-,-,Ireland		
Within the Country	20 03 01	No	8860.2	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,,Ireland		
Within the Country	20 03 01	No	298.76	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	South Dublin County Council,W0003-03	Ballymount Baling Station,Ballymount Road,Walkinstown ,Dublin 12,Ireland		
Within the Country	20 03 01	No	7013.34	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Dublin City Council,W0238-01	Merrywell Industrial Estate,Ballymount Road Lower,Ballymount ,Dublin 12,Ireland		
Within the Country	20 03 03	No	2484.96	street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,,Ireland		
Within the Country	20 03 03	No	394.16	street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03	Carbury ,Co Kildare ,-,-,Ireland		
Within the Country	20 03 07	No	2530.11	bulky waste	D5	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,,,Ireland		
Within the Country	20 03 07	No	184.52	bulky waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03	Carbury ,Co Kildare ,-,-,Ireland		
Within the Country	20 03 07	No	10.58	bulky waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Limited,W0183-01	Millennium Business Park,Grange,Ballycoolin,Dublin 11,Ireland		
Within the Country	16 01 03	No	12.54	end-of-life tyres	R13	M	Weighed	Offsite in Ireland	Irish Packaging & Recycling,W0263-01	Ballymount Road,Walkinstown,Dublin 12,,,Ireland		
Within the Country	16 01 03	No	8.8	end-of-life tyres	R13	M	Weighed	Offsite in Ireland	Dublin City Council,W0238-01	Merrywell Industrial Estate,Ballymount Road Lower,Ballymount ,Dublin 12,Ireland		
Within the Country	17 05 04	No	24.8	soil and stones other than those mentioned in 17 05 03	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Limited,W0188-01	Greenogue Industrial Estate ,Rathcoole,Co. Dublin,,,ireland		

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 Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	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					
Within the Country	17 05 04	No	743.63	soil and stones other than those mentioned in 17 05 03	R5	M	Weighed	Offsite in Ireland	Behan Land Restoration,COR-DS-12-0002-01	Windmill Hill Quarry,Rathcoole,Co. Dublin,.,Ireland		
Within the Country	19 10 01	No	35.8	iron and steel waste	R4	M	Weighed	Offsite in Ireland	Cummins Metals,WFP-DS-10-0005-02	Station Road,Clondalkin,Dublin 22,.,Ireland		
Within the Country	19 12 07	No	1629.68	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Ormonde Organics,W0237-01	Killowen,Portlas,Co. Waterford,.,Ireland		
Within the Country	19 12 07	No	44481.2	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Eirebloc Ltd,WFP-CK-13-0127-01	Lissarda ,Co. Cork,.,.,Ireland		
Within the Country	19 12 07	No	8.64	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Cummins Metals,WFP-DS-10-0005-02	Station Road,Clondalkin,Dublin 22,.,Ireland		
Within the Country	19 12 07	No	408.36	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	McGill Environmental Systems,W0180-01	Coom,Glenville ,Co. Cork,.,Ireland		
Within the Country	19 12 07	No	95.76	wood other than that mentioned in 19 12 06	R11a	M	Weighed	Offsite in Ireland	Ballynagran Landfill Limited,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	19 12 07	No	71.48	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Enrich Environmental,WMP 2004/57	Kilcock Co. Kildare,.,.,.,Ireland		
Within the Country	19 12 07	No	520.16	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Glaslough Peat,WP22/4	Annacatty,Glaslough ,Co. Monaghan,.,Ireland		
Within the Country	19 12 07	No	233.84	wood other than that mentioned in 19 12 06	R11a	M	Weighed	Offsite in Ireland	Knockharley Landfill Limited,W0146-02	Kentstown ,Co. Meath ,-,-,Ireland		
Within the Country	19 12 07	No	114.6	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	O'Toole Composting Limited,W0284-01	Ballintrane,Fenagh,Co. Carlow,.,Ireland		
Within the Country	19 12 07	No	81.62	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Waddocks Composting,WP11/04 & WP 01/02	Killamaster,Co. Carlow,.,.,Ireland		
Within the Country	20 03 07	No	88.12	bulky waste	R13	M	Weighed	Offsite in Ireland	Thorntons Recycling Centre Limited,W0210-01	Pass of Kilbride,Milltownpass,Co. Westmeath,.,Ireland		

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

APPENDIX 3

Procedures Index

Integrated Procedures - IP		
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IP-04	Legal & Regulatory Requirements Procedure	Rev 01, 22/05/17
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 01, 22/05/17
IP-06	Competence, Training & Awareness Procedure	Rev 01, 22/05/17
IP-07	Communication & Consultation Procedure	Rev 01, 22/05/17
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 01, 22/05/17
IP-09	Evaluation of Compliance Procedure	Rev 01, 22/05/17
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IP-12	Management Review Procedure	Rev 01, 22/05/17
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IP-14	Health & Safety & Environmental Monitoring	Rev 01, 22/05/17
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SP-07	Health & Safety Notification Procedure	Rev 01, 22/05/17
SP-08	*MSW Shredder routine Maintenance & Clearing of Blockages Procedure (SCGT)*	*Rev 01, 22/05/17*
SP-09	*Weighbridge & Tipping Procedure (SCGT)*	*Rev 01, 22/05/17*
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Environmental Procedures - EP		
EP-01	Office Waste & Energy Management Procedure	Rev 01, 22/05/17
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EP-11	Civic Amenity Site Procedure	Rev 01, 22/05/17

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

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
30/06/13	25	IP-16	01	Inclusion of new procedure	M.D.
09/09/13	26	IP-03	02	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
09/09/13	27	IP-04	30	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
09/09/13	28	IP-05	02	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
16/10/13	29	EP-03	03	Introduction of EPA ALDER Portal	K.B
28/04/14	30	All EP's & IP's	01	Change of Company name and review of all Integrated and Env procedures	M.D & O.C
28/04/14	31	SP's	01	Change of Company name and review of all safety procedures including re-numbering & deletion of Motor Claim Notification Procedure – SP 08	O.C
06/05/15	32	EP-09	02	Ref to new form EF-11 added	SS
21/01/16	33	IP-05/IP-07/IP-12	02	Meeting frequency refs updated	SS
14/11/16	34	IP-18	02	Amended as per EPA instruction	SS
11/01/17	35	IP-19	01	New addition	SS
22/05/17	36	All EP's, SP's & IP's	01	Review of all procedures	DN & JN

Circulation List

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