WASTE RECOVERY SERVICES (FERMOY) LTD.

Licence No. W0107-01

ANNUAL ENVIRONMENTAL REPORT

2014

Prepared By: Adrian Dunlea

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1 INTRODUCTION

1.1 Reporting Period

The following is the annual report (AER) for the period January 2014 to December 2014 for the Waste Transfer/Recycling Facility operated by Waste Recovery Services (Fermoy) Ltd. (WRS) at Cullenagh, Fermoy, County Cork. The contents of this report are as specified in Schedule F of Waste licence W0107-01 granted on 18th of April 2002.

1.2 Waste Activities Carried Out.

WRS are licensed by the Environmental Protection Agency (EPA) to carry out waste activities in a non-hazardous waste transfer station. The facility is licensed to accept non hazardous waste (commercial, industrial and construction and demolition waste). Hazardous or liquid wastes are not accepted. Facility. The activities authorised by the licence are in Table 1.1 and 1.2.

Third Schedule

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

This activity is limited to the transfer of non-recoverable waste into jumbo skips for transfer to landfill.

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

This activity is limited to the temporary storage of non-recoverable wastes prior to dispatch to landfill.

Table 1.1 Licensed Waste Recovery Activities,

Fourth Schedule
Class 3. Recycling or reclamation of metals and metal compounds: This activity is limited to the recovery and temporary storage of metal waste separated from waste accepted at the facility.
Class 4. Recycling or reclamation of other inorganic materials: This activity is limited to the recovery and temporary storage of timber waste and of construction and demolition wastes accepted at the facility.
Class 13. Storage of waste intended for submission to any activity referred to in a Preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced: This activity is limited to the storage of materials on site prior to recovery at the facility or removal to a recovery facility off-site

Table 1.2 Licensed Waste Disposal Activities

1.3 Site Infrastructure & Development

1.3.1 Site Infrastructure

The facility comprises a site office, weighbridge, process sheds, workshop and temporary storage areas as well as a waste water and storm water management system. The operational area is separated into three sections

:

1. Waste Transfer Area.
2. Construction & Demolition Area.
3. Timber Segregation & Shredding Area.

1.3.2 Waste Handling & Processing Capacity

The processing capacity each sections are outlined in Tables 1.3, 1.4 and 1.5.

1.4 Waste Transfer Area:

Equipment Type	Equipment Use	Rate of Tonnes Per Hour	Daily Tonnage Capacity - 10 Hour Day >>	Weekly Processing Capacity - 6 Days a Week	Annual Processing Capacity 51 Weeks
Ejector Trailer / Walking Floor, Komatsu - 13 Tonne Excavator, New Holland Skid Steer S160	Loading & Sorting Waste, Transport of Waste Materials	20	200	1,200.00	61,200.00
		Tonnes	**Tonnes**	**Tonnes**	**Tonnes**

Table 1.3 Equipment in Waste Transfer Area

1.5 Construction & Demolition Area:

Equipment Type	Equipment Use	Rate of Tonnes Per Hour	Daily Tonnage Capacity - 10 Hour Day >>	Weekly Processing Capacity - 6 Days a Week	Annual Processing Capacity 51 Weeks
Extec – Finger Screener & LJH – Mobile Picking Station, Manitou Telescopic loader, Tipper Lorries	Screening Waste, Sorting & Segregating Waste. Loading & Sorting Waste. Transport of Waste Materials	40.00	400.00	2,400.00	122,400.00
		Tonnes	**Tonnes**	**Tonnes**	**Tonnes**

Table 1.4 Equipment in Construction & Demolition Area

1.6 Timber Segregation & Shredding Area:

Equipment Type	Equipment Use	Rate of Tonnes Per Hour	Daily Tonnage Capacity - 10 Hour Day >>	Weekly Processing Capacity - 6 Days a Week	Annual Processing Capacity 51 Weeks
2 Wood Shredders, One 14 Tonne Loader & 13 Tonne Excavator, Walking Floor.	Shredding, Loading Wood & Woodchip	20	240	1,440.00	73,440.00
		Tonnes	**Tonnes**	**Tonnes**	**Tonnes**

Table 1.5 Equipment in Timber Segregation & Shredding area

WASTE ACTIVITES

The waste categories and quantities that can be accepted at the Facility are in Schedule A (Table 2) of the waste licence (See Table 2.1):

Waste Type	Maximum Tonnes Per annum
Commercial	3000
Industrial	1700
Construction and Demolition	1800
Total	**6500**

Table 2.1 Waste types and quantities permitted by waste license

The types of wastes received and quantities (tonnes) of waste received and dispatched at the site during 2014 are given in Table 2.2.

This information is commercially sensitive. If you require further details please contact Adrian Dunlea of Waste Recovery Services on 025-31055 with your name, company name, address and email and telephone numbers and we will respond to all queries in due course.

Table 2.2 Wastes Received and Dispatched from the 1st January – 31st December 2014

1.7 Waste recovered at the site

This information is commercially sensitive. If you require further details please contact Adrian Dunlea of Waste Recovery Services on 025-31055 with your name, company name, address and email and telephone numbers and we will respond to all queries in due course.

2 SUMMARY OF RESULTS AND INTERPRETATION OF ENVIRONMENTAL DATA

Foul Water Monitoring

Foul water monitoring is carried out at one location (FW-1), the foul water holding tank that contains water from the process shed. The holding tank is emptied regularly and the contents sent to the Fermoy Waste Water Treatment Plant. All of the parameters complied with the emission limit values (ELVs) set in the Licence. The laboratory reports are included in Appendix 2.

Groundwater Monitoring

Groundwater monitoring was carried out quarterly at six monitoring wells and the laboratory reports are included in Appendix 2. Wells BH-1 and BH-3 are within the facility, while the other wells (Dunlea, O'Riordan, O'Leary and Coughlan) are at private residences in the vicinity of the facility. It is likely that BH-3 and O'Leary's are either upgradient of the facility or not in the same catchment. BH-1, Dunlea's and O'Riordan's are down gradient and Coughlan's is possibly side downgradient of the facility.

It was not possible to sample O'Riordan's well in Q1 or Q3 as there was nobody available to grant access to the property at the time of sampling. O'Leary's well was sampled but not analysed due to a mistake on the analysis request form in Q3.

The licence does not specify any ELVs or Trigger Levels and for interpretation purposes the results had previously been compared to the Interim Guideline Values (IGV) for groundwater published by the Agency. The results are now also compared to the Threshold Values for groundwater (GTV) quality introduced by the European Communities Environmental Objectives (Groundwater) Regulations 2010 S.I. No. 9 of 2010.

The IGV levels represent typical background or unpolluted conditions; however levels higher than the IGV can occur naturally, depending on the local geological and hydrogeological conditions. While the GTVs 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

groundwater. Because not all parameters monitored have been assigned GTVs, the relevant IGVs continue to be used for comparative purposes.

In all monitoring rounds, pH levels in all wells are below the IGV range with the exception of O'Riordan's well which is fitted with a treatment unit to balance the pH in the drinking water supply. The low pH is considered to be naturally occurring. The electrical conductivity in BH-3 in Q1 exceeded the IGV but did not exceed the GTV range.

Elevated concentrations of potassium, exceeding the IGV, were detected in BH-1, Dunlea's well and O'Riordan's well in all monitoring rounds. The potassium levels in O'Riordan's well are associated with the treatment unit.

Elevated concentrations of ammonia, exceeding the GTV, were detected in BH-1 in Q1 – Q3, in BH-3 in Q4, in Dunlea's well in Q2 and Q4 and in O'Leary's well in Q4. The concentration of ammonia in O'Riordan's well in Q4 exceeded the IGV but did not exceed the GTV.

Elevated concentrations of iron, exceeding the IGV, were detected in BH-1 in Q1 and Q3.

Elevated concentrations of zinc, exceeding the IGV, were identified in O'Riordan's well in Q2 and O'Leary's well in Q1. Elevated concentrations of copper, exceeding the IGV but not exceeding the GTV, were identified in Coughlan's well in Q1, O'Leary's well in Q1 and Q4, and in O'Riordan's Well in Q2 and Q4.

Of the parameters analysed annually (in Q1), elevated concentrations of manganese, exceeding the IGV, were detected in BH-1, BH-3 and Dunlea's well. High levels of manganese have been detected in these wells previously. As the high levels occur in both up and down gradient wells it is probable that the manganese is naturally occurring in the groundwater in this area.

Elevated concentrations of TPH were encountered in all monitoring wells. The chloride concentration in BH-3 exceeded the GTV. The chloride concentration in Dunlea's well exceeded the IGV but did not exceed the GTV. The sulphate concentration in BH-3 and Dunlea's well exceeded the IGV and GTV.

The total coliform levels in all of the wells are within the ranges previously detected with the highest concentration identified in BH-1 and Dunlea's well in Q3 and Q4 (202cfu/100ml) and in Coughlan's well in Q2. E-Coli was detected in BH-1 in Q3 and Q4, in Dunlea's well in Q2, Q3 and Q4, Coughlan's well in Q2 and Q3 and in O'Riordan's well in Q2 and Q4. The highest concentration was identified in Dunlea's well in Q4 (10mpn/100ml).

Percolation Area

The discharge to the percolation area (P1) was monitored on two occasions in 2014 (Q1 and Q4) for BOD and suspended solids and once (Q4) for speciated EPH. The pump was not working due to electrical faults in Q2 and Q3. The laboratory was requested to analyse for EPH in Q1 but due to a laboratory error it was not completed. There were no exceedances of the Trigger Levels The laboratory reports are included in Appendix 2.

Dust

Dust monitoring was carried out on three occasions at the three monitoring points specified in the Licence. The monitoring was conducted in August, September and December. The results in August exceeded the deposition limit of 350mg/m2/day. The results of the September and December monitoring were all below the deposition limit.. The laboratory reports are included in Appendix 2.

Noise

Noise monitoring was carried out annually at the monitoring points specified in the Licence. The noise levels complied with the ELV set in the Licence. The noise monitoring report is presented in Appendix 3.

2.1 Review of Nuisance Controls

Nuisance controls are reviewed on weekly bases.

3 REPORTED COMPLAINTS AND INCIDENTS

There were no reported complaints in 2014.

There was one incident where dust monitoring results in August exceeded the deposition limit of 350mg/m2/day.

4 RESOURCE AND ENERGY CONSUMPTION

The main resources consumed at the facility during the reporting period were electricity, diesel, and lubricants. A summary of the significant resources consumed are in Tables 4.1 and Table 4.2.

Area of Use	Purpose	Principal Resource Consumed
Site Plant/Vehicles	Moving and processing of Waste	Diesel, Lubricants
Offices and Sheds	Management of Yard and The facility management	Electricity and Water

Table 4.1 Principal areas of energy and resources usage January 2014 – December 2014

Resource	Consumption for Reporting Period - 2014	Consumption for previous year - 2013	Increase / Decrease (%)
Site Management			
Electricity	28,810 Units	32,004.2 Units	-9.98%
Site Plant / Vehicles			
Diesel	400,270.89 Litres	268,769.50 litres	+48.93%
Lubricants	3,990.4 Litres	2,321.56 litres	+71.88%

Table 4.2 Available data on quantities of Energy and Resources used for January 2014 – December 2014

The increase in fuel consumption between 2013 and 2014 was due to an increase in the amount of waste transported by WRS that previously had been carried by third party hauliers.

5 ENVIRONMENTAL OBJECTIVES & TARGETS FOR 2014

Project	Status
1. Dust Emissions / Monitoring	On going
2. Noise Emissions / Monitoring	On going
3. Ground Water / Monitoring	On going
4. Foul Water / Monitoring	On going

Table 5.1 Progress on Objectives for site improvement for 2014

6 ENVIRONMENTAL OBJECTIVES & TARGETS FOR 2015

Objective	Target	Responsibility	Timescale
Assess and reduce where possible all dust emissions.	Not to exceed 350 mg/m^2/day in order to reduce the possibility of causing dust deposition nuisance beyond site boundary.	Adrian Dunlea	Ongoing
Assess and reduce where possible all site noise emissions.	Not to exceed 55 db(a) L_{AEq} (30 minutes) during day time and not to exceed 45 db(a) L_{AEq} (30 minutes) during night at noise monitoring locations in order to reduce the possibility of causing noise nuisance at noise sensitive locations beyond the site boundary.	Adrian Dunlea	Ongoing
Assess and monitoring groundwater quality at the site and in the immediate vicinity of the site	No pollution of groundwater due to site activities.	Adrian Dunlea	Ongoing
Assess and monitoring waste water emissions from the site.	Compliance with emission limits as required by schedule C4 of W0107-01.	Adrian Dunlea	Ongoing

Table 6.1 Objectives and Targets for 2015

7 NEW PROCEDURES PUT IN PLACE DURING 2014

No new procedures were put in place during 2014.

8 MANAGEMENT AND STAFFING STRUCTURES

The management and staffing structures in place at WRS (Table 8.1) ensures clear communication of environmental policy and responsibility for environmental management on-site. A critical part of this management system is the provision of health and safety and environmental training to all staff members to ensure that all staff members from management to operatives are aware of their responsibilities and best practice to ensure the firm meets its environmental obligations.

Position	Name
General Manager	John Dunlea
Facility Manager / Site Manager / Environmental Manager	Adrian Dunlea
Deputy Facility Manager / Financial Manger / Administration / Logistics etc	Shane Dunlea

Table 7.1 Management Structure

9 PUBLIC INFORMATION PROGRAMME

WRS have developed and implemented a communications procedure as part of the site EMS. In accordance with Condition 2.4 of the waste licence this procedure ensures that members of the public can obtain relevant information, at all reasonable times, concerning the environmental performance of the facility.

10 FINANCIAL PROVISION

An environmental liabilities risk assessment and site closure report have been prepared and submitted to the Agency. These reports contain proposals for financial provision which have been agreed by the Agency.

Adrian Dunlea.

Adrian Dunlea
Environmental Manager
Waste Recovery Services (Fermoy) Ltd

APPENDIX 1

2014 PRTR

Environmental Protection Agency

Guidance to completing the PRTR workbook

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2014

1. FACILITY IDENTIFICATION

Parent Company Name	Waste Recovery Services (Fermoy) Limited
Facility Name	Waste Recovery Services (Fermoy) Limited
PRTR Identification Number	W0107
Licence Number	W0107-01

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Cullenagh
Address 2	Fermoy
Address 3	
Address 4	
	Cork
Country	Ireland
Coordinates of Location	-8.30669 52.1138
River Basin District	IESW
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Adrian Dunlea
AER Returns Contact Email Address	a.dulea@wrs.ie
AER Returns Contact Position	Environmental Manager
AER Returns Contact Telephone Number	025 31055
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	25
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
50.1	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) ?	Yes

This question is only applicable if you are an IPPC or Quarry site

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

* 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

* 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

* 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: Waste Recovery Services (Fermoy) Limited

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	(Total Flaring Capacity)
Methane flared	0.0				0.0	(Total Utilising Capacity)
Methane utilised in engine/s	0.0				0.0	
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 this only concerns Releases from your facility

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
No. Annex II	Name	M/C/E	Method Used: 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 PRTR POLLUTANTS

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
No. Annex II	Name	M/C/E	Method Used: 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 C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
Pollutant No.	Name	M/C/E	Method Used: 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

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					
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

4.4 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

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APPENDIX 2.

2014 MONITORING RESULTS

2a - GROUNDWATER LABORATORY REPORTS

2b – FOUL WATER LABORATORY REPORTS

2c – PERCOLATION AREA LABORATORY REPORTS

2d – DUST MONITORING REPORTS

APPENDIX 3.

NOISE MONITORING REPORT