Facility Information Summary						
AER Reporting Year	2015					
Licence Register Number	W0059-03					
Name of site	Ballaghaderreen Landfill					
Site Location	Aghalustia Townland, Ballaghaderreen, County Roscommon					
NACE Code	3821					
Class/Classes of Activity	Treatment and disposal of non-hazardous waste					
National Grid Reference (6E, 6 N)	163350 292800					
	The landfill site stopped accepting waste for disposal to landfill in July 2010. Activities or process at the site during 2015 included: Monitoring as required by the Licence; Civic Amenity Site re-lined; and hazardous waste					
A description of the activities/processes at	storage increased by purchase of a converted 20' shipping container with roller door on 'long' side. During					
the site for the reporting year. This should	2015, there were exceedances of the Licence limits for carbon dioxide in most of the perimeter boreholes and					
include information such as production	the groundwater ammoniacal nitrogen GTV and DWS in the downgradient borehole BH103. Annual flare					
increases or decreases on site, any	monitoring and noise monitoring were not carried out in 2015; noise monitoring has not been carried out since					
infrastructural changes, environmental	the landfill ceased accepting waste in 2010.					
performance which was measured during						
the reporting year and an overview of						
compliance with your licence listing all						
exceedances of licence limits (where						
applicable) and what they relate to e.g. air,						
water, noise.						

## **Declaration:**

All the data and information presented in this report has been checked and certified as being accurate. The

quality of the information is assured to meet licence requirements.

Niall Kennedy	30/03/2016
Signature Group/Facility manager	Date
(or nominated, suitably qualified and experienced deputy)	

AIR-summary template	Lic No:	W0059-03	Year	2015	
Answer all questions and complete all tables where relevant		Additional in	formation		
		Additional II	IIIIIIIIIIIII	]	
Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you <u>do not</u> need to complete the tables		For the landfill gas flare and per boreholes as per Condition 6 of	0		
Periodic/Non-Continuous Monitoring	163	borenoies as per condition o or	the licence.	1	
				1	
2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below	f Yes	Carbon dioxide in perimeter bo	reholes.	4	

AGN2

3 Was all monitoring carried out in accordance with EPA guidance monitoring, note AG2 and using the basic air monitoring checklist? checklist

Yes Flare monitoring was not, however, carried out in 2015.

## Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision therof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis		Comments -reason for change in % mass load from previous year if applicable
Perimeter monitoring boreholes GM201-GM208	Methane (CH4)	Monthly	1.0% v/v		All results 0.0% v/v in 2015	SELECT	yes	SELECT	0	Method of analysis for methane and carbon dioxide in perimeter monitoring boreholes is in accordance with Site Operating Procedure SOP17.
Perimeter monitoring boreholes GM201-GM208	Carbon dioxide (CO2)	Monthly	1.5% v/v		Max 3.5% v/v (GM203, Q1 and Q2; GM208, Q2)	SELECT	no (if no please enter details in comments box)	SELECT	Cannot calculate as flow rates not recorded.	Given that there are no corresponding elevated methane levels within the perimeter monitoring boreholes then landfill gas is unlikely to be the source of the carbon dioxide. Elevated carbon dioxide concentrations could occur as a result of decomposition processes within the peat into which the monitoring boreholes are installed. It is recommended that the EPA are consulted on increasing the carbon dioxide trigger levels to 1.5% v/v above the 95th percentile carbon dioxide level for each borehole.
Flare Outlet	volumetric flow	Annually	-			Nm3/hour	SELECT	SELECT	N/A	Flow monitoring completed on monthly basis - measured value is average from available data.
Flare Outlet		Annually	<150 mg/Nm <sup>3</sup>	100 % of values < ELV		SELECT	SELECT	SELECT	N/A - see comments	Flare monitoring not completed in 2015.
Flare Outlet	Total Organic Carbon (as C)	Annually	<10 mg/Nm <sup>3</sup>		N/A - see comments	SELECT	SELECT	SELECT	N/A - see comments	Flare monitoring not completed in 2015.
Flare Outlet	Total acids	Annually	Hydrochloric acid - <50 mg/Nm <sup>3</sup> >0.3 kg/hr		N/A - see comments	SELECT	SELECT	SELECT	N/A - see comments	Flare monitoring not completed in 2015.
Flare Outlet	Total acids	Annually	Hydrogen fluoride - <5 mg/Nm <sup>3</sup> >0.05		N/A - see comments	SELECT	SELECT	SELECT	N/A - see comments	Flare monitoring not completed in 2015.

Note 1: Volumetric flow shall be included as a reportable parameter

	AIR-summary template	Lic No:	W0059-03	Year	2015
	Continuous Monitoring				
4	Does your site carry out continuous air emissions monitoring?		Continuous carbon monoxide monitorin flow outlet in Table D.7 of Licence	ng required from	
	If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)				
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	Yes	See Table A2		
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	Yes			
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below Table A2: Summary of average emissions -continuous monitoring	No			

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
								downtime (hours)	current	
		ELV in licence or							reporting year	
		any revision therof								
Flare Outlet	Carbon monoxide (CO)	<50 mg/Nm <sup>3</sup>	Daily	Daily average < ELV	mg/Nm3	N/A	N/A	N/A	N/A	Flare monitoring not completed in 2015.
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					

note 1: Volumetric flow shall be included as a reportable parameter.

#### Table A3: Abatement system bypass reporting table Bypass protocol

Date*	Duration** (hours)	Location	Reason for bypass	Impact magnitude	Corrective action				

\* this should include all dates that an abatement system bypass occurred

\*\* an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

	AIR-summary t	emplate				Lic No:	W0059-03		Year	2015		
	Solvent	use and manageme	nt on site									
8 Do you have a total Emission Limit Value of direct and fugitive emissions on site? if yes please fill out tables A4 and A5 No												
	Table A4: Solvent Management Plan Summary         Solvent         Please refer to linked solven           Total VOC Emission limit value         regulations         complete table 5											
	Reporting year	Total solvent input on site (kg)	emissions to Air		Total Emission Limit Value (ELV) in licence or any revision therof	Compliance						
						SELECT						
	T.11. 45	C. I				SELECT						
	Table A5:	Solvent Mass Balan	ce summary							I		
		(I) Inputs (kg)			(O)	Outputs (kg)						
	Solvent	(I) Inputs (kg)		Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)		Solvents destroyed onsite through	Total emission of Solvent to air (kg)			
							,					
						Total				]		

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	W0059-03		Year	2015
-			Additional information	on		
Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you <u>only</u> need to complete table W1 and or W2 for storm water analysis and visual inspections			provides buffer storage for leachate it is pumped to the public sewer to reen STW.			
Was it a requirement of your licence to carry out visual inspections on any surface water 2 discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections	Yes	Table D.5.1 re	requires weekly visual inspection of	surface water.		

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

\*trigger values may be agreed by the Agency outside of licence conditions

#### Table W2 Visual inspections-Please only enter details where contamination was observed.

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
NA - no					
contamination					
observed.			SELECT		
			SELECT		

#### Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous)

3	Was there any result in breach of licence requirements? If ye	s please provide bri	ef details in the		
5	comment section of Table W3 I	below		No	NA - no ELV or trigger value for parameters monitored.
	Was all monitoring carried out in accordance with EPA				
	guidance and checklists for Quality of Aqueous Monitoring	External /Internal			
	Data Reported to the EPA? If no please detail what areas	Lab Quality	Assessment of		
4	require improvement in additional information box	checklist	results checklist	Yes	

#### Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)

reference no:	Emission released to Wastewater/Se	Parameter/ SubstanceNote 1	Type of sample		Averaging period	ELV or trigger values in licence or any revision therof <sup>Note 2</sup>	Licence Compliance criteria No flow value shall exceed the	Measured value	Unit of measurement		Method of analysis	Procedural reference source	Procedural reference standard number Standard		Comments
LS-1	wer	volumetric flow	discrete	Daily	24 hour	NA	specific limit.	2015	m3/day	yes	METHODS	specify)	Operating Procedure SOP16	22054000	
LS-1	Wastewater/Se wer	Volatile organic compounds (as TOC)		Frequency and method are still to be agreed with EPA		0.14 mg/l			mg/L				NA	NA	This relates to methane, which could not be selected from dropdown box.

Note 1: Volumetric flow shall be included as a reportable parameter

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic No:	W0059-03	Year	2015	
Continuous monitoring		Additional Info			
Does your site carry out continuous emissions to water/sewer monitoring?	monitoring	1 in the Licence requires daily flort g at a frequency 'to be agreed'. toring is not classified as continued.	We have assumed that daily		
5	No				
If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)					
Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below	No NA				
Do you have a proactive service contract for each piece of continuous monitoring equipment on 7 site?	No NA				

8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 8 below

#### Table W4: Summary of average emissions -continuous monitoring

Emission	Emission		ELV or trigger values in licence or any revision	Averaging	Compliance	Units of		% change +/- from previous reporting year	Monitoring	Number of ELV exceedences in	
reference no:	released to	Parameter/ Substance	thereof	Period	Criteria	measurement	reporting year (kg)		downtime (hours)	reporting year	Comments
	SELECT	SELECT		SELECT	SELECT	SELECT					
	SELECT	SELECT		SELECT	SELECT	SELECT					

note 1: Volumetric flow shall be included as a reportable parameter.

#### Table W5: Abatement system bypass reporting table

	Date	Duration (hours)	Location	Resultant	Reason for	Corrective	Was a report	When was this report
				emissions	bypass	action*	submitted to the	submitted?
							EPA?	
							SELECT	
ſ								

No

\*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline testing template	Lic No:	W0059-03		Year	2015	
Bund testing dropdown menu click to see options			Additional information	т		
Are you required by your licence to undertake integrity testing on bunds and containment structures ? if yes please	fill out table B1 below listing all new bunds					
and containment structures on site, in addition to all bunds which failed the integrity test-all bunding structures where the structures where the structure is a structure of the structure of t	hich failed including mobile bunds must be					
listed in the table below, please include all bunds outside the licenced testing period (mobile bunds and chemstore 1	included)	Yes	Condition 10.4 c) of Licence	1		
2 Please provide integrity testing frequency period		3 years	Condition 3.10.5 of the Licence	1		
Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps an	nd containers? (containers refers to					
3 "Chemstore" type units and mobile bunds)		Yes		1		
4 How many bunds are on site?		1	Leachate lagoon bund	1		
5 How many of these bunds have been tested within the required test schedule?		0	Due September 2012	1		
6 How many mobile bunds are on site?		0		1		
7 Are the mobile bunds included in the bund test schedule?		SELECT	NA	1		
8 How many of these mobile bunds have been tested within the required test schedule?		NA		1		
9 How many sumps on site are included in the integrity test schedule?		0		1		
10 How many of these sumps are integrity tested within the test schedule?		NA		1		
Please list any sump integrity failures in table B1				-		
			High level alarms installed in pump			
11 Do all sumps and chambers have high level liquid alarms?		Yes	sumps and leachate lagoon.	1		
			In accordance with Site Operating			
12 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?		Yes	Procedures.	1		
13 Is the Fire Water Retention Pond included in your integrity test programme?		N/A	No fire water retention pond.	1		
Table B1: Summary details of bund /containment structure integrity test						

7

									Integrity reports					Results of retest(if in
Bund/Containment									maintained on		Integrity test failure		Scheduled date	current
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reporting year)
Leachate lagoon bunc		Granular basal support layer, BES layer, HDPE layer, geotextile protection layer and granular layer supported by geoweb on side slopes.		Approximately 800 cubic		Structural assessment		09/09/2009	Yes	Pass		SELECT	Sep-12	NA - see above
* Capacity required should con	nply with 25% or 110% containment re	ale as detailed in your licence					Commentary							

Has integrity testing been carried out in accordance with licence requirements and are all structures tested 15 in line with BS8007/EPA Guidance?	bunding and storage guidelines		Lagoon integrity tested every 3 years in accordance with Licence, although now overdue.
16 Are channels/transfer systems to remote containment systems tested?			Connecting pipework to lagoon was tested following installation in 2003.
			Connecting pipework to lagoon was
17 Are channels/transfer systems compliant in both integrity and available volume?		Yes	tested following installation in 2003.

#### Pipeline/underground structure testing

Are you required by your licence to undertake integrity testing\* on underground structures e.g. pipelines or sumps etc ? if yes please fill out table 2 below listing 1 all underground structures and pipelines on site which failed the integrity test and all which have not been tested withing the integrity test period as specified 2 Please provide integrity testing frequency period Other (please specify) NA

\*please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

Table E	32: Summary details of pi	peline/underground structures in	tegrity test					 		
Structure ID	Type system		Does this structure have Secondary containment?	Type of secondary containment		Integrity reports maintained on site?		Corrective action taken		Results of retest(if in current reporting year)
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT			SELECT
									1	

No

Pipework installed under CQA

Please use commentary for additional details not answered by tables/ questions above

2015

Year

		Comments	
1 Are you required to carry out groundwater monitoring as part of your licence			
<sup>1</sup> requirements?	yes	Schedule D of Licence.	Please provide an interpretation of groundwater monitoring data in the
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment			include a groundwater/contaminated land monitoring results
<sup>3</sup> section	no		interpretaion as an additional section in this AER
			March 2015 (Q1): The reported monitoring results for March 2015 from
Do monitoring results show that groundwater generic assessment		See interpretation box	the limestone aquifer boreholes are below the trigger levels for the site,
criteria such as GTVs or IGVs are exceeded or is there an upward		to the right. The text is	with ammoniacal nitrogen results ranging from 0.01 to 1.65 mg/l.
4 trend in results for a substance? If yes, please complete the		lifted from the quarterly	Concentrations are higher in the boreholes installed within the
Groundwater Monitoring Guideline Template Report (link in cell Groundwater		site monitoring reports	superficial deposits, at between 0.09 mg and 7.63 mg/l, although similar
G8) and submit separately through ALDER as a licensee return monitoring		produced by Amec	results have been recorded historically. The rest of the results for the
AND answer questions 5-12 below. template	yes	Foster Wheeler.	other typical landfill leachate indicator parameters (chloride, dissolved
		Cells 1 to 5 at the site	oxygen and electrical conductivity) are similar to previous results,
		were designed and	although the chloride result from GW301 is anomalous. The borehole
		operated on the	BH103 headworks have been severely damaged, potentially allowing
5		principles of 'dilute and	surface water to enter the borehole. It is recommended that borehole
		disperse' and are	BH103 is repaired or replaced as soon as possible because the samples
Is the contamination related to operations at the facility (either current and/or historic	) ves	therefore unlined.	obtained at present are unlikely to be representative of groundwater
	, ,		within the limestone aguifer and present a route for potential cross
			contamination.
			June 2015 (Q2): The reported monitoring results for June 2015 from the
6			limestone aquifer boreholes are all below the trigger levels for the site.
			Concentrations of ammonia in the limestone boreholes were
			predominantly lower than those recorded in the boreholes installed
			within the superficial deposits and similar results have been recorded
			historically. The rest of the results for the other typical landfill leachate
		Capping and landfill	indicator parameters (chloride, dissolved oxygen and electrical
		gas/leachate	conductivity) are similar to previous results. Concentrations of boron,
Have actions been taken to address contamination issues?If yes please summarise		management of Cells 1	mercury and cyanide were BLD (below limit of detection) in all sampled
remediation strategies proposed/undertaken for the site	ves	to 5.	boreholes, and concentrations of cadmium were also BLD in all three
	1		samples from the limestone aquifer. Most of the other parameters
			analysed were recorded at concentrations similar to previous results,
			with the exception of zinc in BH11. Concentrations of iron, manganese
7			and sulphate are higher in the downgradient boreholes within the
			limestone aquifer when compared with the upgradient borehole. This
Please specify the proposed time frame for the remediation strategy	ves	Ongoing.	trend was not seen in the previous annual results. This warrants close
	,	C	attention to future results as it may be indicative of impact to
			groundwater from the unlined part of the site. All groundwater samples
			taken in June 2015 were recorded as cloudy and with a slight odour,
8			with the exception of BH04/1, which was cloudy with a very slight
		Condition 12.4.2 of the	odour. Recent discussion with RCC indicates that the BH103 headworks
Is there a licence condition to carry out/update ELRA for the site?	ves	Licence.	have been repaired.
is there a here condition to early out aparte carry of the site:	,	Electrice.	nave been repaired.

Groundwater/Soil monitoring template	Lic No: W005	59-03	Year 2015
9		Please refer to Waste Licence Review application, Entec ref: 00966rr529i2 dated March 2002. Also updated Groundwater Risk Screening and Technical Assessment September 2014 produced by Amec	September 2015 (Q3): The reported monitoring results for September 2015 from the limestone aquifer boreholes are all below the trigger levels for the site. Concentrations of ammonia in the limestone boreholes are generally lower than those recorded in the boreholes installed within the superficial deposits and similar results have been recorded historically. The rest of the results for the other typical landfill leachate indicator parameters (chloride, dissolved oxygen and electrical conductivity) are similar to previous results. Samples taken in September 2015 were recorded as cloudy with moderate odour (BH12), cloudy and with a slight odour (BH11 and GW301), clear with slight odour (BH3 and BH103) and clear with no odour (BH04/1).
Has any type of risk assesment been carried out for the site?	yes	Foster Wheeler.	October 2015 (Q4): The reported monitoring results for October 2015
10 Has a Conceptual Site Model been developed for the site?	yes	Please refer to Amec Foster Wheeler's Groundwater Risk Screening and Technical Assessment dated September 2014.	from the limestone aquifer boreholes are predominantly below the trigger levels for the site with one exception of ammoniacal nitrogen recorded at BH103. Concentrations of ammonia in the limestone boreholes are generally lower than those recorded in the boreholes installed within the superficial deposits and similar results have been recorded historically. The rest of the results for the other typical landfill leachate indicator parameters (chloride, dissolved oxygen and electrical
11 Have potential receptors been identified on and off site?	yes	Please refer to Amec Foster Wheeler's Groundwater Risk Screening and Technical Assessment dated September 2014.	conductivity) are similar to previous results. Samples taken in October 2015 were recorded as clear with slight odour (BH3, BH04/1, BH102 and BH103), clear with moderate odour (BH11), very murky with slight odour (BH12) and very grey and murky with slight odour (GW301).
12 Is there evidence that contamination is migrating offsite?	yes	See interpretation box to the right. The text is lifted from the quarterly site monitoring reports produced by Amec Foster Wheeler.	

## Table 1: Upgradient Groundwater monitoring results

	10		U							
Date of sampling	Sample location reference	Parameter/ Substance		Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*		Upward trend in pollutant concentration over last 5 years of monitoring data
31 March, 16 June, 16										
September										
and 20			Site Operating							
October		Ammoniacal	Procedure							
2015	BH04/1	Nitrogen	SOP15	Quarterly	0.172	0.071	mg/l	3	0.3	no

Groundw	ater/Soil mo	onitoring tem	nplate		Lic No:	W0059-03		Year	2015	
31 March,										
16 June, 16										
September										
and 20			Site Operating							
October			Procedure							
2015	BH04/1	Chloride	SOP15	Quarterly	33.2	31.77	mg/l	100	250	yes
31 March,										
16 June, 16										
September										
and 20			Site Operating							
October			Procedure							
2015	BH04/1	тос	SOP15	Quarterly	8.2	5.79	mg/l	80	NA	no

.+ where average indicates arithmetic mean

.++ maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance		Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*		Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
31 March, 16 June, 16 September and 20 October 2015	ВН102	Ammoniacal Nitrogen	Site Operating Procedure SOP15	Quarterly	0.14	0.05	mg/l	3	0.3	по
31 March, 16 June, 16 September and 20 October 2015	ВН102	Chloride	Site Operating Procedure SOP15	Quarterly	22.89	15.75	mg/l	100	250	yes
31 March, 16 June, 16 September and 20 October 2015	BH102	тос	Site Operating Procedure SOP15	Quarterly	6.11	5.14	mg/l	80	NA	yes

Groundwa	ater/Soil m	onitoring ten	nplate		Lic No:	W0059-03		Year	2015	5		
31 March, 16 June, 16 September and 20 October 2015	ВН103	Ammoniacal Nitrogen	Site Operating Procedure SOP15	Quarterly	4.66	2.23	mg/l	3	0.3	no		
31 March, 16 June, 16 September and 20 October 2015	ВН103	Chloride	Site Operating Procedure SOP15	Quarterly	22.4	25.05	mg/l	100	250	yes		
31 March, 16 June, 16 September and 20 October 2015	ВН103	тос	Site Operating Procedure SOP15	Quarterly	13.97	9.04	mg/l	80	NA	yes		
trend in resul the Groundwa	lts for a substand ater Monitoring	ce indicates that fu Guideline Templat	nt criteria (GAC) su rther interpretatio	ch as a Groundwater n of monitoring result provided and submit by the EPA.	s is required. In addition	n to completing the a	ne Value (IGV) or an up above table, please com arn or as otherwise instr	plete Grou	indwater monito			
	and risk assessm		· · · · · · · · · · · · · · · · · · ·	shed guidance (see	Guidance on th	e Management of	Contaminated Land a	nd Groundwater	at EPA Licensed S	<u>Sites (EPA 2013).</u>		
					ve Receptor based Wate I Quality Standards (SW		should be used in additi		Groundwater regulations	Drinking water (private supply)	Drinking water (public	Inter

Groundwa	ater/Soil mo	nitoring tem	plate		Lic No:	W0059-03			Year	2015	
Table 3: S	oil results								_		
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration		unit			
							SELECT				
							SELECT				

Where additional detail is required please enter it here in 200 words or less

Environmental Liabilities template	Lic No:	W0059-03	Year
 Click here to access EPA guidance on Environmental Liabilities and Financial			
provision			
		Commentary	
1 ELRA initial agreement status			
	Required but not submitted		
2 ELRA review status	SELECT	ELRA not submitted to date	
	SELECT	uate	
3 Amount of Financial Provision cover required as determined by the latest ELRA	NA		
4 Financial Provision for ELRA status	Required but not submitted		
5 Financial Provision for ELRA - amount of cover	Not known at this stage.		
	Not known at this stage.		

Other please specify

Enter expiry date

Required but not submitted

SELECT

Required but not submitted

Not known at this stage.

Other please specify

Enter expiry date

6

7

8

9

10

11

12 13 Financial Provision for ELRA - type

Financial provision for ELRA expiry date

Closure plan initial agreement status Closure plan review status

Financial Provision for Closure status

Financial Provision for Closure - amount of cover

Financial Provision for Closure - type

Financial provision for Closure expiry date

Financial provision will be made from Central Government funds by way of loans from

Central Government.

Financial provision will be made from Central Government funds by way of loans from

Central Government.

No expiry date.

No expiry date.

NA

2015

Environmental Management Programme/Continuous Improvement Programme	template	Lic No:	W0059-03	Year	201
Highlighted cells contain dropdown menu click to view		Additional Information		-	
Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information		Latest version is 2010 u ref: 15951rr689i1	pdate, Entec (now Amec Foster Wheeler)		
2 Does the EMS reference the most significant environmental aspects and associated impacts on-site	/es	See above referenced E	MS document.		
Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance					
3 with the licence requirements Y	/es	See above referenced E	MS document.		
		Refer to Roscommon C	•		
Do you maintain an environmental documentation/communication system to inform the public on		http://www.roscommo	ncoco.ie/en/Services/Environment/Wast	e	
4 environmental performance of the facility, as required by the licence	/es	_Management,_Dispos	al_and_Recycling/	1	

Environmental Management Programme	Environmental Management Programme (EMP) report								
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes				
		CELECT.		CELECT	CELECT.				
SELECT		SELECT		SELECT	SELECT				
SELECT		SELECT		SELECT	SELECT				
SELECT		SELECT		SELECT	SELECT				

Noise monitoring s	summary report		L	Lic No:	W0059-03	Year	2015
1 Was noise monitoring a licence requirement for the If yes please fill in table N1 noise summary below	e AER period?				Yes	]	
			_	<u>Noise</u>			
2 Was noise monitoring carried out using the EPA Gu			he 🤇	<u>Guidance</u>	No		
"Checklist for noise measurement report" included	I in the guidance note as	table 6?	<u>r</u>	note NG4			
3 Does your site have a noise reduction plan					No		
4 When was the noise reduction plan last updated?					NA		
Have there been changes relevant to site noise en 5	missions (e.g. plant or op bise survey?	perational chan	nges) since	e the last	Yes		
Table N1: Noise monitoring summary							
	Noico						Comments (ov. main

Date of		Noise location	Noise sensitive location -NSL						If tonal /impulsive noise was	Comments (ex. main noise sources on site, & extraneous noise	ls <u>site</u> compliant with noise limits (day/evening/night)?
monitoring	Time period	(on site)	(if applicable)	$LA_{eq}$	LA <sub>90</sub>	LA <sub>10</sub>	$LA_{max}$	noise* (Y/N)	applied?	ex. road traffic)	
Not complete	d (see below)							SELECT	SELECT		SELECT

\*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

SELECT

\*\* please explain the reason for not taking action/resolution of noise issues?
Noise monitoring is required as per Table D.4.1 of the licence on an annual basis, but was not carried out in 2015 as the landfill site had ceased accepting waste. Noise monitoring was last carried out on 6 December 2010.

Resource Usage/Energy efficiency summary	Lic No:	W0059-03		Year	2015
			Additional information	L	
		Site energy use			
		reviewed as part of			
		AER, no			
		recommendations			
		made as landfill site			
1 When did the site carry out the most recent energy efficiency audit? Please list the re	commendations in table 3 below	is now closed.			
	SEAI - Large				
Is the site a member of any accredited programmes for reducing energy usage/water	conservation Industry Energy		The Council is not		
2 such as the SEAI programme linked to the right? If yes please list them in additional	information <u>Network (LIEN)</u>	No	part of the LIEN		
			N/A - fuel oil not		
Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence c	onditions? Please state percentage		used in boilers on		
3 in additional information		SELECT	site.		

Table R1 Energy usag	e on site			
Energy Use	Previous year		Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	49.096	44.003		NA - no site production
Total Energy Generated (MWHrs)	0	0		NA
Total Renewable Energy Generated (	0	0		NA
Electricity Consumption (MWHrs)	49.096	44.003		NA - no site production
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0	0		NA
Light Fuel Oil (m3)	0	0		NA
Natural gas (m3)	0	0		NA
Coal/Solid fuel (metric tonnes)	0	0		NA
Peat (metric tonnes)	0	0		NA
Renewable Biomass	0	0		NA
Renewable energy generated on site	0	0		NA

\* where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

\*\* where site production information is available please enter percentage increase or decrease compared to previous year

Table R2 Water usage	e on site				Water Emissions	Water Consumption	
						Volume used i.e not	
			Production +/- %	Energy		discharged to	
			compared to	Consumption +/- %	Volume Discharged	environment e.g.	
	Water extracted	Water extracted	previous	vs overall site	back to	released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	environment(m <sup>3</sup> yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply	Estimated at 297	Estimated at 297	0	NA	Estimated at 297	NA	NA
Recycled water							
Total							

\* where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

\*\* where site production information is available please enter percentage increase or decrease compared to previous year

Resource Usage/Energy efficiency summa	ary
--	-----

Lic No: W0059-03

Year

2015

Table R3 Waste Stream Summary

	1				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)					

Table R4: Energy Au	Table R4: Energy Audit finding recommendations						
Date of audit		Description of Measures proposed		Predicted energy savings %	Implementation date	Responsibility	Status and comments
			SELECT				
			SELECT				
			SELECT				

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry)please complete the following information

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used or	Site				

Complaints and Incidents summary template		Lic No:	W0059-03	Year	2015	
 Complaints						
		Additional inform	nation			
Have you received any environmental complaints in the current reporting year? If yes please complete summary details of complaints received on site in table 1 below	No					

Table	1 Complaints summary						
Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action< 20 words	Resolution status	Resolution date	Further information
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
Total complaints open at start of reporting year Total new complaints received during reporting year		-					
Total complaints							
closed during							
reporting year Balance of		_					
complaints end of							
reporting year							

		Incidents												
					Additional inform	ation								
Have any incidents	occurred on site in the current rep	orting year? Please list all inc	idents for current reporting		Exceedences of Li	cence limits for car	bon dioxide in peri	meter monitoring b	oreholes and a	mmoniacal nitrogen GI	V/DWS in grou	ndwater monitori	ng borehole BH	1103 as per
	year in Ta	ble 2 below	_	Yes	relevant tables of AER template. Exceedences detailed in quarterly reports.									
*For informati	on on how to report and what													
	istitutes an incident	What is an incident												
con	strutes an incluent													
Table 2 Incidents su	mmary													
			Incident			Other	Activity in				Preventative			T
			category*please refer to			cause(please	progress at time			Corrective action<20	action <20		Resolution	Likelihood of
Date of occurrence	Incident nature	Location of occurrence	guidance	Receptor	Cause of incident	specify)		Communication	Occurrence	words	words	Resolution status	date	reoccurence
See above	Breach of ELV	Perimeter gas BHs	1. Minor	Air	Operational contr	ols	Normal activities	EPA	Recurring			Ongoing	NA	High
See above	Breach of ELV	Groundwater BH103	1. Minor	Water	Operational contr	ols	Normal activities	EPA	Recurring			Ongoing	NA	High
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
Total number of														
incidents current														
year	See quarterly reports.													
Total number of														
incidents previous														
year	See quarterly reports.													
% reduction/														
increase														

WASTE SUMMARY	Lic No:	W0059-03	Year	2015
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY	ALL IPPC AND WASTE FACILITIES	PRTR facility logon	dropdown lis	t click to see options

SECTION B- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES		
E	_	Additional Information
		Landfill ceased
Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility ?; (waste generated within your		accepting waste in
1 boundaries is to be captured through PRTR reporting)	No	2010.
If yes please enter details in table 1 below		
		Landfill ceased
		accepting waste in
2 Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information	No	2010.
		Landfill ceased
		accepting waste in
3 Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information	N/A	2010.
Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site for recovery).	ur site. as	these will have bee

## Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook) Licenced annual EWC code Source of waste accepted Description of waste Quantity of waste Quantity of waste accepted in Reduction/ Reason for Packaging Content (%) Disposal/Recovery or Quantity of Comments

Electriced anniadi	Life coue	Source of Music accepted	Description of Waste	duantity of maste	duantity of music accepted in	neudectiony	neusonitoi	r dendging content (70)	Disposal necovery of	Quantity of	commentes
tonnage limit for your			accepted	accepted in current	previous reporting year (tonnes)	Increase over	reduction/ increase	only applies if the	treatment operation carried	waste	
site (total			Please enter an	reporting year (tonnes)		previous year +/ -	from previous	waste has a packaging	out at your site and the	remaining on	
tonnes/annum)			accurate and detailed			%	reporting year	component	description of this operation	site at the end	
			description - which							of reporting	
			applies to relevant EWC							year (tonnes)	
			code								
	European Waste Catalogue EWC codes		European Waste								
			Catalogue EWC codes								
SEE PRTR FOR WASTES	ACCEPTED AT RECYCLING CENTRE										

#### SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES

4 Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite

5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required on site

6 Does your facility have relevant nuisance controls in place?7 Do you have an odour management system in place for your facility? If no why?

8 Do you maintain a sludge register on site?

## SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY

Table 2 waste type	e and tonnage-landfill only			
Waste types permitted for disposal	Authorised/licenced annual intake for disposal (tpa)	Actual intake for disposal in reporting year (tpa)	Remaining licensed capacity at end of reporting year (m3)	Comments
				Landfill ceased accepting waste in
				2010.

#### Table 3 General information-Landfill only

	Area ID	Date landfilling commenced	Date landfilling ceased	Currently landfilling	Private or Public Operated	Inert or non-hazardous	Predicted date to cease landfilling	Licence permits asbestos	Is there a separate cell for asbestos?		Total disposal area occupied by waste	Lined disposal area occupied by waste	Unlined area	Comments on liner type
											SELECT UNIT	SELECT UNIT	SELECT UNIT	
														0.5m BES and
C	ells 1-8	1980	2010	No	Public	Non Hazardous	Ceased 2010	Yes	No	No	5.02	2.27	2.75	2mm HDPE

N/A	No waste processing infrastructure.
Yes	

Yes Refer to site operating procedure SOP7 Yes Refer to site operating procedure SOP29 for odour management No

#### WASTE SUMMARY Lic No: W0059-03 Year 2015 Table 4 Environmental monitoring-landfill only Was meterological monitoring in Landfill Manual-Monitoring Standards

	nonitoring in							rias the statement	
	compliance with			Was SW monitored in			Was topography	under S53(A)(5) of	
	Landfill Directive (LD)		Was Landfill Gas monitored in	compliance with LD			of the site	WMA been	
	tandard in reporting	Was leachate monitored in compliance	compliance with LD standard	standard in reporting	Have GW trigger levels	Were emission limit values agreed with	surveyed in	submitted in	
	/ear +	with LD standard in reporting year	in reporting year	year	been established	the Agency (ELVs)	reporting year	reporting year	Comments
ſ									
									There will be no
									statement for 2015 as
									it is understood that
									there are no charges to
	No	Yes	Yes	Yes	Yes	Yes	No	No	levy on a closed landfill.

No Yes Yes A + please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

#### Table 5 Capping-Landfill only

Area uncapped*	Area with temporary cap			Area with waste that should be permanently		
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments
					(Base upwards): regraded waste,	
					then regulating layer, then	
					geosynthetic gas drainage layer,	
		5 00 h -			LLDPE geomembrane, geosynthetic	
None	None	5.02 ha	None	None	drainage layer, restoration soils.	

\*please note this includes daily cover area

Table 6 Leachate-Landfill only

9 Is leachate from your site treated in a Waste Water Treatment Plant?

10 Is leachate released to surface water? If yes please complete leachate mass load information below

Yes No

- [	2						Specify type of	
	Volume of leachate in		Leachate (COD) mass load	Leachate (NH4) mass	Leachate (Chloride)		leachate	
	reporting year(m3)	Leachate (BOD) mass load (kg/annum)	(kg/annum)	load (kg/annum)	mass load kg/annum	Leachate treatment on-site	treatment	Comments
[								

Please ensure that all information reported in the landfill gas section is consistent with the Landfill Gas Survey submitted in conjunction with PRTR returns

#### Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
				Estimate of gas captured and treated by landfill gas system using landfill gas survey. Surface emissions monitoring last carried out in 2011 by Odour Monitoring
1153152	0	Flared off	No	Ireland.

Version 1.1.19



| PRTR# : W0059 | Facility Name : Ballaghaderreen Landfill | Filename : W0059\_2015.xls | Return Year : 2015 |

#### Guidance to completing the PRTR workbook

# PRTR Returns Workbook

REFERENCE YEAR 2015

1. FACILITY IDENTIFICATION	
Parent Company Name	Roscommon County Council
Facility Name	Ballaghaderreen Landfill
PRTR Identification Number	W0059
Licence Number	W0059-03

Classes of Activity	
No	. class_name
· · · · · · · · · · · · · · · · · · ·	- Refer to PRTR class activities below

	Aghalustia Townland
Address 2	Ballaghaderreen
Address 3	
Address 4	
	Roscommon
	Ireland
Coordinates of Location	-6.71294 52.9688
River Basin District	IEGBNISH
NACE Code	
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	John Mockler
AER Returns Contact Email Address	
	Roscommon Municipal District Coordinator
AER Returns Contact Telephone Number	
AER Returns Contact Mobile Phone Number	087 9902378
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	1
User Feedback/Comments	Version 1. Variance in methane emissions mainly due to the average measured flow rate at the flare being much lower in 2015 (132m3/hr) compared to 2014 (177m3/hr). This has a large negative effect on the volume of
	methane flared, as calculated using the landfill gas survey spreadsheet. Net methane emission in 2014 also overestimated in PRTR because estimated methane generation has been quoted in m3/year rather than kg/yr
	as required. This means 2014 total estimated methane generation should be 573623 kg/yr (858717.4 m3/yr * 0.668 kg/m3) making the 2014 net methane emission for 233374 kg/yr.
Web Address	

#### 2. PRTR CLASS ACTIVITIES

2.1 mm deadd ac mmed					
Activity Number	Activity Name				
5(d)	Landfills				
5(c)	Installations for the disposal of non-hazardous waste				
5(d)	Landfills				
50.1	General				
3. SOLVENTS REGULATIONS (S.I. No. 543 of 20	02)				
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

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) ?	

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

Landfill:

Please enter summary data on the quantities of methane flared and / or utilised

Total estimated methane generation (as per

Net methane emission (as reported in Section A

site model)

above)

Methane flared

Methane utilised in engine/s

AER Returns Workbook

19

#### 4.1 RELEASES TO AIR Link to previous years emissions data | PRTR# : W0059 | Facility Name : Ballaghaderreen Landfill | Filename : W0059 2015.xls | Return Year : 2015 | 30/03/2016 11:07 SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS RELEASES TO AIR ase enter all quantities in this section in KG QUANTITY POLL METHOD Method Used M/C/E Method Code No. Annex II Name Designation or Description Emission Point 1 T (Total) KG/Year A (Accidental) KG/Year F (Fugitive) KG/Year GasSim V2.5 model and Methane (CH4) OTH measured data 293900.2 293900.2 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 POLL METHOD OLIVN. Method Lised M/C/E Method Code No. Annex II Designation or Description Emission Point 1 T (Total) KG/Year A (Accidental) KG/Year F (Fugitive) KG/Year Name 0.0 Chlorofluorocarbons (CFCs) GasSim V2.5 model ОТН 1.93 1.71 0.0 1.93 1.71 0.0 Hydrochlorofluorocarbons (HCFCs) GasSim V2.5 model OTH 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 Method Used M/C/E Method Code Pollutant No. Emission Point 1 T (Total) KG/Year A (Accidental) KG/Year F (Fugitive) KG/Year Name Designation or Description \* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button Additional Data Requested from Landfill operators

Method Used

Method Code

M/C/E

C C

C OTH

с отн

532189.2 238289.0

293900.2

0.0

Designation or

Description

GasSim v2.5 model

No engine

andfill gas survey 2015

GasSim v2.5 model and landfill gas survey 2015 Facility Total Capacity m3

per hour

N/A

N/A

0.0 (Total Flaring Capacity)

0.0 (Total Utilising Capacity)

| PRTR# : W0059 | Facility Name : Ballaghaderreen Landfill | Filename : W0059\_2015.xls | Return Year : 2015 |

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 the methane (CH4) emission to the environment under Tutola) KGy tor Gescion A. Sector specific PRTR pollutant slavov. Pieses complete the table below:

T (Total) kg/Year

Ballaghaderreen Landfill

AER Returns Workbook

4.2 RELEASES TO WATERS	PRTR# : W0059   Facility Name : Ballaghaderreen Landfill   Filename : W0059_2015.xls   Return Year : 2015					30/03/2016 11:07			
SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS Da RELEASES TO WATERS			bient monitoring of storm/su		er, conducted as part of your lice Please enter all quantities			TR Reporting as this only c	oncerns Releases from your facility
POLLUTANT							QUANTITY		
			Method						
No. Annex II	Name	M/C/E	Method Code Design	nation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					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

1	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		
POI	LUTANT						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(	) 00	0.0

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

# 4.3 RELEASES TO WASTEWATER OR SEWER Link to previous years emissions data |PRTR#: W0059 | Facility Name : Ballaghaderreen Landfill | Filename : W0059\_2015.xls | Return Y 30/03/2016 11:07 SECTION A : PRTR POLLUTANTS OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER Please enter all quantities in this section in KGs

OFFSILE IN	ANSPER OF POLLOTANTS DESTINED FOR WASTE-	Please effer an quantities in this section in Kds						
	POLLUTANT		METHO	D			QUANTITY	
			Met	hod 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	0.0

\* 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	R WASTE-WATER TRE	ATMENT OR SEV	VER	Please enter all quantities in this section in KGs				
POLLUTANT			М	ETHOD	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

| PRTR# : W0059 | Facility Name : Ballaghaderreen Landfill | Filename : W0059\_2015.xls | Return Year : 2015 |

30/03/2016 11:07

#### **SECTION A : PRTR POLLUTANTS**

		Please enter all quantitie	Gs					
POLLUTANT		METHOD				QUANTITY	(	
			N	Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Acciden	ital) 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)

	RELE	ASES TO LAND			Please enter all quar	ntities in this section in KO	as	
	POLLUTANT		N	IETHOD			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

#### AER Returns Workbook

Lumes         Image: Company Mathe European Waste         Image: Company Waste		ENT & OFFSITE TRA			PRTR# : W0059   Facility Name : Ballaghaderreen Land all quantities on this sheet in Tonnes	and a solution of		10.30   110.011   10di - 2010					30/03/2016
ander Destination of Code         European Waste Description of Waste         Treatment Description of Waste         Code Description of Waste				Quantity (Tonnes per		Waste		Method Used	-	Licence/Permit No of Next Destination Facility <u>Non</u> <u>Haz Waste</u> : Name and Licence/Permit No of	Destination Facility Non Haz Waste: Address of	Address of Final Recoverer / Disposer (HAZARDOUS WASTE	Actual Address of Final Destin i.e. Final Recovery / Disposal (HAZARDOUS WASTE ON
inarder Description of Waste         Operation         MC/E         Method Used         Treatment         Caravity owner, Head/ord           thin the Country         15 01 01         No         45.4         paper and cardboard packaging         R5         M         Winghed         Offsite in Ireland         Barna Waste, CW074         Road, Galway,, Heand         Caravity owner, Head/ord         Caravity, Head         Caravity owner, Head/ord         Caravity owner, Head/ord <th></th> <th>European Waste</th> <th>aste</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Location of</th> <th></th> <th></th> <th></th> <th></th>		European Waste	aste						Location of				
Intime County       15 0 1 01       No       No       Paper and carabbard packaging       PS       M       Weighed       Offale in Ireland       Bara Waste, CW074       Read, Glavay, , Ireland       Carrowtrown, Headford         Ithin the County       15 0 10 4       No       2.9       retailing backaging       R4       M       Weighed       Offale in Ireland       Bara Waste, CW074       Carrowtrown, Headford       Carrowtrown, Headford       Carrowtrown, Headford       Carrowtrown, Headford       Estate, Co. Lask, Ireland       Commilant Industrial       Carrowtrown, Headford       Estate, Co. Lask, Ireland       Estate, Co. Lask, Ireland       Carrowtrown, Headford       Estate, Co. Lask, Ireland       Fighte, WILL       Estate, Co. Lask, Ireland       Fighte, WILL	ransfer Destination			lous	Description of Waste		M/C/E	Method Used					
Carrowney 15 01 04       No       2.56 metallic packaging       F4       M       Weighed       Offste in Ireland       Barraw Sets CW074       Clear CM074				45.4									
Itiline County       15 01 04       No       2.5 metallic packaging       Pd       M       Weighed       Offsite in lenion       Bana Waste,CW074       Factors       Classifier       Classifier <thclassifier< th=""> <thclassifier< th=""></thclassifier<></thclassifier<>	ithin the Country	15 01 01	No		paper and cardboard packaging	R5	М	Weighed	Offsite in Ireland	Barna Waste,CW074			
0.367         0.101 <th< td=""><td>lithin the Country</td><td>15 01 04</td><td>No</td><td>2.96</td><td>metallic packaging</td><td>R4</td><td>м</td><td>Weighed</td><td>Offsite in Ireland</td><td>Barna Waste CW074</td><td></td><td></td><td></td></th<>	lithin the Country	15 01 04	No	2.96	metallic packaging	R4	м	Weighed	Offsite in Ireland	Barna Waste CW074			
Control       200 4 0       andfill leachate other than those mentioned in 19 07 02       DB       M       Volume Calculation       Offste in reland       WWTW, D012-01       BalaghaderreenCo       Seconmon, reland         0 Other Countries       20 01 02       No       10.65       glass       R5       M       Weighed       Abroad       Glassdon, LN08/103       Kingdom       Field       Field <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Clonmillam Industrial</td><td></td><td></td></td<>											Clonmillam Industrial		
Itilini the Country       19 07 03       No       in 19 07 02       DB       M       Volume Calculation       Offsite in Ireland       Roscommon, Ireland       Roscommon, Ireland       Social Componing Leging         o Other Countries       20 01 02       No       10.65 glass       R5       M       Weighed       Abroad       Glassdon,LN08/103       Roscommon, Ireland       Social Componing Leging       For the Country         o Other Countries       20 01 02       No       10.65 glass       R5       M       Weighed       Abroad       Glassdon,LN08/103       Roscommon, Ireland       Social Componing Leging       For the Country       For the Country       Roscommon, Ireland       For the Country	ithin the Country	16 06 04	No			R4	М	Weighed	Offsite in Ireland	Enva Portlaoise,W0184-01			
s conter countries 2 0 01 02 No 10.65 glass R5 M Weighed Abroad Glassdon,LN/08/103 Abroad Ferviorene,Haadford Ferviorene,Haadf	Vithin the Country	10.07.02	No	22054.0		Do		Volume Coloulation	Officite in Ireland	W/W/TW/ D0102 01			
o Other Countries       20 01 02       No       10.65       jass       R5       M       Weighed       Abroad       Glascion(E Environmental) (Ibd Va       No       1.06       Since (Since (Sin	within the Country	19 07 03	INO		11 19 07 02	Do	IVI	volume Calculation	Offsite in Ireland	WWWIW,D0123-01			
o Other Countries       20 01 02       No       1.0.65 glass       FS       M       Weighed       Abroad       Classdon,LN/08/103       Kingdom       Complex,Complex										Clearcircle Environmental			
1.16													
1/ithin the Country       20 01 11       No       textiles       R5       M       Weighed       Offsite in Ireland       Textile Recycling, CW14       Rode, Talepair-C       Forthard, Rode, Orchard Rode, Industrial       Rode, Talepair-C       Setter Strate, Strate, Strate, Rode, Orchard Rode, Industrial       Rode, Talepair-C       Orchard Rode, Orchard Rode, Industrial       Rode, Talepair-C       Prilie, WLL26/26, Orchard       Rode, Talepair-C       Orchard Rode, Orchard Rode, Industrial       Rode, Talepair-C       Sette, Strate, Strate, Strate, Strate, Rode, Orchard Rode, Industrial       Rode, Talepair-C       Sette, Strate, S	o Other Countries	20 01 02	No		glass	R5	М	Weighed	Abroad	Glassdon,LN/08/103			
Vitin the Country       20 01 11       No       textiles       R5       M       Weighed       Offsite in Ireland       Textile Recycling, CW014       Road, Tallaght, D24, Ireland       Fylice, WLL26/26, Orchard       Road, Orchard Road       Orchard Road, Orchard Road       Orchard Road, Orchard Road       Orchard Road, Orchard Road       Orchard Road, Orchard Road       Orchard Road, Orchard Road       Orchard Road, Orchard Road       Orchard Road, Orchard Road       Road, Tallaght, D24, Ireland       Road, Orchard Road       Orcha				1.10									
o Cher Countries 2 0 01 26 Yes 0.0 01 25 R9 Pair, inks, adhesives and resins containing agroup substances R9 M Weighed Abroad Frylite, WML26/26 BT82 9FR, United Kingdom BT	Vithin the Country	20 01 11	No		textiles	R5	М	Weighed	Offsite in Ireland	Textile Recycling,CW014			
o Other Countries 20 01 26 Yes 0.0 01 25 0.0 0													
o Other Countries 20 01 26 Yes 0.0 01 25 Reference of and fat other than those mentioned in 20 01 25 Reference of angerous substances of angerous angerous of an													Orchard Road, Orchard I
To Other Countries       20 126       Yes       0.0 0 125       R9       M       Weighed       Abroad       Frylite,WML26/26       BT82 9FR,United Kingdom       Curits/Frase,102837,Breand       Curits/Frase,102837,Breand       Curits/Frase,102837,Breand       Strase,102837,Breand       Strase,102837,Bread					oil and fat other than those mentioned in 20								Estate,Strabane,Co Tyr
Fo Other Countries       20 01 27       Yes       paint, inks, adhesives and resins containing dangerous substances       R6       M       Weighed       Abroad       Indaver Ireland, W36-02       Laighre, Co Dublin,Ireland       Strasse, 1028237, Bremen,G Strasse, 10         Yo Other Countries       20 01 27       Yes       dangerous substances       R6       M       Weighed       Abroad       Indaver Ireland, W36-02       Laighre, Co Dublin,Ireland       mmany       ermany	o Other Countries	20 01 26	Yes	0.0	01 25	R9	М	Weighed	Abroad	Frylite,WML26/26		BT82 9FR, United Kingdom	BT82 9FR, United Kingd
Fo Other Countries       20 01 27       Yes       dangerous substances       R6       M       Weighed       Abroad       Indaver Ireland,W36-02       Laoighre,Co Dublin,,,Ireland       ermany       ermany       ermany         40.4       discarded electronic equipment other than those mentioned in 20 21.02       Vithin the Country       20 01 36       No       01 21, 20 01 23 and 20 01 35       R5       M       Weighed       Offsite in Ireland       Lid,W01113-03       Offaly,Ireland Carrowbrowne,Headford         Within the Country       20 01 38       No       wood other than that mentioned in 20 01 37       R3       M       Weighed       Offsite in Ireland       Barna Waste,CW074       Road,Galway,,Ireland Carrowbrowne,Headford         Within the Country       20 01 39       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste,CW074       Road,Galway,,Ireland Carrowbrowne,Headford         Within the Country       20 01 40       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste,CW074       Road,Galway,,Ireland Carrowbrowne,Headford       Carrowbrowne,Headford         Within the Country       20 03 01       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste,CW074       Road,Galway,,Ireland				3.624									Louis-Krages
40.4       discarded electrical and electronic equipment other than those mentioned in 20 21.02       KMK Metals Recycling Cappicur, Tullamor,Co Offaly, Ireland Carrowbrowne, Headford         Vithin the Country       20 01 36       No       01 21, 20 01 23 and 20 01 35       R5       M       Weighed       Offsite in Ireland       Ltd, W01113-03       Offaly, Ireland Carrowbrowne, Headford         Vithin the Country       20 01 38       No       wood other than that mentioned in 20 01 37       R3       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway, Ireland Carrowbrowne, Headford         Vithin the Country       20 01 39       No       plastics       R5       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway, Ireland Carrowbrowne, Headford         Vithin the Country       20 01 40       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway, Ireland Carrowbrowne, Headford         Vithin the Country       20 01 40       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway, Ireland Carrowbrowne, Headford         Vithin the Country       20 03 01       No       mixed municipal waste       D1       M       Weighed       Offsite in Ireland	o Other Countries	20.01.27	Vec			R6	м	Weighed	Abroad	Indover Ireland W36-02			
Within the Country       20 01 36       No       01 21, 20 01 23 and 20 01 35       R5       M       Weighed       Offsite in Ireland       Ltd, W01113-03       Offaly, Ireland         Within the Country       20 01 38       No       wood other than that mentioned in 20 01 37       R3       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Within the Country       20 01 39       No       plastics       R5       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Within the Country       20 01 40       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Within the Country       20 01 40       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Within the Country       20 03 01       No       mixed municipal waste       D1       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Within the Country       20 03 01       No       mixed municipal waste       D1       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Irela	o other obuilties	200127	163	40.4		110	101	Weighed	Abioad		Ladigine, oo Dubini,.,neiand	ernany	ennary
21.02       Carrowbrowne, Headford         Within the Country       20 01 38       No       wood other than that mentioned in 20 01 37       R3       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Vithin the Country       20 01 39       No       plastics       R5       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Vithin the Country       20 01 40       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Vithin the Country       20 01 40       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Vithin the Country       20 01 40       No       mixed municipal waste       D1       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland         Vithin the Country       20 03 01       No       mixed municipal waste       D1       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,Ireland													
Within the Country       20 01 38       No       wood other than that mentioned in 20 01 37       R3       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,,, Ireland         Within the Country       20 01 39       No       plastics       R5       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,,, Ireland         Within the Country       20 01 39       No       plastics       R5       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,,, Ireland         Within the Country       20 01 40       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,,, Ireland         Within the Country       20 03 01       No       metals       R4       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,,., Ireland         Within the Country       20 03 01       No       mixed municipal waste       D1       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,., Ireland         Within the Country       20 03 01       No       mixed municipal waste       D1       M       Weighed       Offsite in Ireland       Barna Waste, CW074       Road, Galway,., Ireland	Vithin the Country	20 01 36	No		01 21, 20 01 23 and 20 01 35	R5	М	Weighed	Offsite in Ireland	Ltd,W01113-03			
Vithin the Country     20 01 39     No     27.24     Carrowbrowne, Headford       Within the Country     20 01 39     No     plastics     R5     M     Weighed     Offsite in Ireland     Barna Waste, CW074     Road, Galway, Ireland       Within the Country     20 01 40     No     metals     R4     M     Weighed     Offsite in Ireland     Barna Waste, CW074     Road, Galway, Ireland       Within the Country     20 03 01     No     mixed municipal waste     D1     M     Weighed     Offsite in Ireland     Barna Waste, CW074     Road, Galway, Ireland	Vithin the Country	20.01.38	No	21.02	wood other than that mentioned in 20 01 37	B3	м	Weighed	Offsite in Ireland	Barna Waste CW074			
19.88     Carrowbrowne, Headford       Within the Country     20 01 40     No     mals     R4     M     Weighed     Offsite in Ireland     Barna     Waste, CW074     Road, Galway, Ireland       60.92     60.92     mixed municipal waste     D1     M     Weighed     Offsite in Ireland     Barna     Waste, CW074     Road, Galway, Ireland	,			27.24							Carrowbrowne, Headford		
Vithin the Country 20 01 40 No metals R4 M Weighed Offsite in Ireland Barna Waste,CW074 Road,Galway,,Ireland 60.92 Vithin the Country 20 03 01 No mixed municipal waste D1 M Weighed Offsite in Ireland Barna Waste,CW074 Road,Galway,,Ireland	Vithin the Country	20 01 39	No		plastics	R5	М	Weighed	Offsite in Ireland	Barna Waste,CW074			
60.92 Carrowbrowne, Headford Vithin the Country 20 03 01 No mixed municipal waste D1 M Weighed Offsite in Ireland Barna Waste, CW074 Road, Galway,Ireland	Vithin the Country	20.01.40	No	19.88	motolo	D4	м	Maighad	Offeite in Ireland	Porpo Wasto CW074			
Vithin the Country 20 03 01 No mixed municipal waste D1 M Weighed Offsite in Ireland Barna Waste, CW074 Road, Galway,Ireland	within the Country	20 01 40	INU	60.92	metals	N4	IVI	vveigneu	Offsite in fielding	Dama Waste, 00074			
Carrowbrowne,Headford	Vithin the Country	20 03 01	No		mixed municipal waste	D1	М	Weighed	Offsite in Ireland	Barna Waste,CW074			
							_			-			
Vithin the Country 15 01 02 No 1.3 plastic packaging R3 E Volume Calculation Offsite in Ireland Barna Waste,CW074 Road,Galway,Ireland KMK Metals Recycling Cappincur,TullamorCo	Vithin the Country	15 01 02	No	1.3	plastic packaging	R3	Ë	Volume Calculation	Offsite in Ireland				
Non Mielias Hedgoring Capplicitur, 10 and 0,Co	Vithin the Country	16 06 05	No	1,105	other batteries and accumulators	B4	м	Weighed	Offsite in Ireland				

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

Link to previous years waste data Link to previous years waste summary data & percentage change Link to Waste Guidance