

**Facility Information Summary**

AER Reporting Year	2016
Licence Register Number	W0011-02
Name of site	Ballymurtagh
Site Location	Avoca, co. Wicklow
NACE Code	3832
Class/Classes of Activity	Disposal & Recovery of Non-Hazardous Waste
National Grid Reference (6E, 6 N)	-6.22865,52.87457

A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental 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.**

Ballymurtagh is a closed landfill (14 years) and now only operates a Recycling facility at the site.

**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.

_____		_____	
Signature	<i>Robert Kelly</i>	Date	20/03/2017
Group/Facility manager			
(or nominated, suitably qualified and experienced deputy)			

<b>AIR-summary template</b>	Lic No: W0011-02	Year: 2016
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Answer all questions and complete all tables where relevant

- 1 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 do not need to complete the tables

Additional information	
Yes	The site operates a landfill gas flare.

### Periodic/Non-Continuous Monitoring

- 2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below
- 3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? [Basic air monitoring checklist](#) [AGN2](#)

No	
Yes	

**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 thereof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
Flare	volumetric flow	Bi-annual	3000 m <sup>3</sup> /hr		117	Nm <sup>3</sup> /hour	yes	OTH	-	
Flare	Sulphur oxides (SOx/SO <sub>2</sub> )	Bi-annual	No limit		57.93	mg/Nm <sup>3</sup>	not applicable#	OTH	67.78	
Flare	Nitrogen oxides (NOx/NO <sub>2</sub> )	Bi-annual	<150mg/Nm <sup>3</sup>	100 % of values < ELV	83.79	mg/Nm <sup>3</sup>	yes	OTH	98.03	
Flare	Carbon monoxide (CO)	Bi-annual	No limit		2.23	mg/Nm <sup>3</sup>	not applicable#	OTH	2.6	

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

### Continuous Monitoring

- 4 Does your site carry out continuous air emissions monitoring?  
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
- 6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?
- 7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below

No	
SELECT	
SELECT	
SELECT	

**Table A2: Summary of average emissions -continuous monitoring**

Emission reference no:	Parameter/ Substance	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
		ELV in licence or any revision thereof							

AIR-summary template					Lic No:	W0011-02	Year	2016
SELECT				SELECT	SELECT			
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

Solvent use and management 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	
<b>Table A4: Solvent Management Plan Summary</b>				Please refer to linked solvent regulations to complete table 5 and 6					
<b>Total VOC Emission limit value</b>				<a href="#">Solvent regulations</a>					
Reporting year	Total solvent input on site (kg)	Total VOC emissions to Air from entire site (direct and fugitive)	Total VOC emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision thereof	Compliance				
					SELECT				
					SELECT				
<b>Table A5: Solvent Mass Balance summary</b>									
(I) Inputs (kg)		(O) Outputs (kg)							
Solvent	(I) Inputs (kg)	Organic solvent emission in waste	Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	Solvent released in other ways e.g.	Solvents destroyed onsite through	Total emission of Solvent to air (kg)	
									Total



<b>AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)</b>							Lic No:	W0011-02	Year	2016
	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 emissions	Reason for bypass	Corrective action*	Was a report submitted to the EPA? SELECT	When was this report submitted?

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

**Bund testing**

dropdown menu click to see options

**Additional information**

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 which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period** (mobile bunds and chemstore included)

- 1 Please provide integrity testing frequency period
- 2 Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)
- 3 How many bunds are on site?
- 4 How many of these bunds have been tested within the required test schedule?
- 5 How many mobile bunds are on site?
- 6 Are the mobile bunds included in the bund test schedule?
- 7 How many of these mobile bunds have been tested within the required test schedule?
- 8 How many sumps on site are included in the integrity test schedule?
- 9 How many of these sumps are integrity tested within the test schedule?

Yes	
3 years	
Yes	
0	
0	
No	Not applicable
N/a	
0	
0	
SELECT	N/A
SELECT	N/A
SELECT	N/A

**Please list any sump integrity failures in table B1**

- 11 Do all sumps and chambers have high level liquid alarms?
- 12 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?
- 13 Is the Fire Water Retention Pond included in your integrity test programme?

**Table B1: Summary details of bund /containment structure integrity test**

Bund/Containment structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
	SELECT					SELECT			SELECT	SELECT		SELECT		
	SELECT					SELECT			SELECT	SELECT		SELECT		

\* Capacity required should comply with 25% or 110% containment rule as detailed in your licence

Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance?

- 15 Are channels/transfer systems to remote containment systems tested?
- 16 Are channels/transfer systems compliant in both integrity and available volume?

Commentary	
SELECT	
SELECT	
SELECT	

**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 all underground structures and pipelines on site **which failed the integrity test and all which have not been tested within the integrity test period as specified**

- 1 Please provide integrity testing frequency period
- \*please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

SELECT	
SELECT	

**Table B2: Summary details of pipeline/underground structures integrity test**

Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	Type of secondary containment	Type integrity testing	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT

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

<b>Groundwater/Soil monitoring template</b>	Lic No: W0011-02	Year: 2016
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		Comments	
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes	
2	Are you required to carry out soil monitoring as part of your licence requirements?	no	
3	Do you extract groundwater for use on site? If yes please specify use in comment section	no	
4	Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template <a href="#">Groundwater monitoring template</a> Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below.	yes	
5	Is the contamination related to operations at the facility (either current and/or historic)	no	
6	Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	no	
7	Please specify the proposed time frame for the remediation strategy	N/A	
8	Is there a licence condition to carry out/update ELRA for the site?	yes	
9	Has any type of risk assessment been carried out for the site?	yes	
10	Has a Conceptual Site Model been developed for the site?	no	
11	Have potential receptors been identified on and off site?	yes	
12	Is there evidence that contamination is migrating offsite?	yes	Acid Mine Drainage

Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER

Please enter interpretation of data here

**Table 1: Upgradient Groundwater monitoring results**

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV/s*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data
Annual Average	G1/05	Ammonical Nitrogen	Colourimetric	Quarterly	0.9	0.88	mg/l	0.15	IGV	no
Annual Average	G1/05	Chloride	Ion Chromatography	Quarterly	15	14.2	mg/l	30	IGV	no
Annual Average	G1/05	Conductivity	Electrometry	Quarterly	1444	1365	uS/cm @20 degrees C	1000	IGV	no
Annual Average	G1/05	Dissolved Oxygen	DO Probe	Quarterly	6.6	6	mg/l	No Abnormal Change	IGV	yes
Annual Average	G1/05	Odour	On Site	Quarterly	Odourless	Odourless	not applicable	not applicable	IGV	no
Annual Average	G1/05	pH	Hydrogen ion selective Electrode	Quarterly	4.1	3.9	pH units	6.5 - 9.5	IGV	yes
Annual Average	G1/05	Potassium	Ion Chromatography	Quarterly	2.5	2.2	mg/l	5	IGV	yes

Groundwater/Soil monitoring template				Lic No:	W0011-02	Year	2016			
Annual Average	G1/05	Sodium	Ion Chromatography	Quarterly	13	11.5	mg/l	150	IGV	yes
Annual Average	G1/05	Sulphate	Ion Chromatography	Quarterly	<b>1295</b>	<b>1077</b>	mg/l	200	IGV	yes
Annual Average	G1/05	TOC	Heated Persulfate Oxidation	Quarterly	1.2	1.1	mg/l	No Abnormal Change	IGV	no
Annual Average	G2/05	Ammonical Nitrogen	Colourimetric	Quarterly	<0.08	<0.08	mg/l	0.15	IGV	no
Annual Average	G2/05	Chloride	Ion Chromatography	Quarterly	30	21	mg/l	30	IGV	no
Annual Average	G2/05	Conductivity	Electrometry	Quarterly	<b>1266</b>	<b>1212</b>	uS/cm @20 degrees C	1000	IGV	no
Annual Average	G2/05	Dissolved Oxygen	DO Probe	Quarterly	8.1	7.2	mg/l	No Abnormal Change	IGV	yes
Annual Average	G2/05	Odour	On Site	Quarterly	Odourless	Odourless	not applicable	not applicable	IGV	no
Annual Average	G2/05	pH	Hydrogen ion selective Electrode	Quarterly	<b>4.2</b>	<b>3.9</b>	pH units	6.5 - 9.5	IGV	yes
Annual Average	G2/05	Potassium	Ion Chromatography	Quarterly	1.9	1.6	mg/l	5	IGV	yes
Annual Average	G2/05	Sodium	Ion Chromatography	Quarterly	24	15	mg/l	150	IGV	yes
Annual Average	G2/05	Sulphate	Ion Chromatography	Quarterly	<b>840</b>	<b>829</b>	mg/l	200	IGV	yes
Annual Average	G2/05	TOC	Heated Persulfate Oxidation	Quarterly	1.2	1.1	mg/l	No Abnormal Change	IGV	no
Annual Average	G2/05	Total Phenols	Distillation/ Colormetry	Quarterly	0.06	0.05	mg/l	0.5	IGV	no
Annual Average	Twin Shafts	Ammonical Nitrogen	Colourimetric	Quarterly	<b>0.18</b>	0.1	mg/l	0.15	IGV	no
Annual Average	Twin Shafts	Chloride	Ion Chromatography	Quarterly	17	16	mg/l	30	IGV	no
Annual Average	Twin Shafts	Conductivity	Electrometry	Quarterly	354	321	uS/cm @20 degrees C	1000	IGV	no
Annual Average	Twin Shafts	Dissolved Oxygen	DO Probe	Quarterly	8.8	7.1	mg/l	No Abnormal Change	IGV	yes
Annual Average	Twin Shafts	Odour	On Site	Quarterly	Odourless	Odourless	not applicable	not applicable	IGV	no
Annual Average	Twin Shafts	pH	Hydrogen ion selective Electrode	Quarterly	6.5	6.4	pH units	6.5 - 9.5	IGV	yes
Annual Average	Twin Shafts	Potassium	Ion Chromatography	Quarterly	<b>7</b>	5	mg/l	5	IGV	yes

Groundwater/Soil monitoring template				Lic No:	W0011-02	Year	2016			
Annual Average	Twin Shafts	Sodium	Ion Chromatography	Quarterly	11	9	mg/l	150	IGV	yes
Annual Average	Twin Shafts	Sulphate	Ion Chromatography	Quarterly	116	98	mg/l	200	IGV	yes
Annual Average	Twin Shafts	TOC	Heated Persulfate Oxidation	Quarterly	1.9	1.7	mg/l	No Abnormal Change	IGV	no
Annual Average	Twin Shafts	Total Phenols	Distillation/ Colormetry	Quarterly	<0.05	<0.05	mg/l	0.5	IGV	no

.++ 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	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
							SELECT			SELECT
							SELECT			SELECT

\*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA. [Groundwater monitoring template](#)

More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance [Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites \(EPA 2013\)](#). (see the link in G31)

\*\*Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS) [Groundwater regulations](#) [Drinking water \(private supply\) standards](#) [Drinking water \(public supply\) standards](#) [Interim Guideline Values \(IGV\)](#) [Surface water EQS](#) [GTV's](#)

**Table 3: Soil 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:

W0011-02

Year

2016

[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

		Commentary	
1	ELRA initial agreement status	Submitted and not agreed by EPA;	
2	ELRA review status	Review required and completed	Reviewed in 2015
3	Amount of Financial Provision cover required as determined by the latest ELRA	€1.5 m	This is the highest cost scenario, the most likely scenario is €607,000.
4	Financial Provision for ELRA status	Required but not submitted	
5	Financial Provision for ELRA - amount of cover	€1.5 m	
6	Financial Provision for ELRA - type	Other please specify	Wicklow County Council is currently reviewing their financial provision for the Ballymurtagh site in light of the ELRA report 2015
7	Financial provision for ELRA expiry date	Enter expiry date	
8	Closure plan initial agreement status	Closure plan submitted and not agreed by EPA	
9	Closure plan review status	Review required and completed	Closure Plan submitted in March 2013
10	Financial Provision for Closure status	Required but not submitted	
11	Financial Provision for Closure - amount of cover	€1.5m	Based on 30 years aftercare
12	Financial Provision for Closure - type	Other please specify	Council is currently reviewing their financial provision for the Ballymurtagh site

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Financial provision for Closure expiry date

Council is currently reviewing their financial provision for the Ballymurtagh site in light of the ELRA report

<b>Environmental Management Programme/Continuous Improvement Programme template</b>		Lic No:	W0011-02	Year	2016
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Highlighted cells contain dropdown menu click to view		Additional Information	
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes	
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes	
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes	
4	Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence	Yes	

### Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Increase run time of flare	80	Weekly balancing of Gas field	Individual	Reduced emissions
Reduction of emissions to Wastewater	Install new gas wells in the waste body.	50	Ongoing	Individual	Installation of infrastructure
Additional improvements	Improve Surface water run off from capped area of landfill	90	Increase the amount of drainage stone in open drains to prevent erosion	Individual	Improved Environmental Management Practices
Additional improvements	Install an LEMP at the facility	40	Define Onbjectives and Targets and specify action dates	Individual	Improved Environmental Management Practices
Additional improvements	Implement a condensate management program for LFG	90	Reduce all small diameter piping to flare, include on daily checklist	Individual	Improved Environmental Management Practices
Groundwater protection	Implement new GW Screening recommendations	10	Target yet to begin	Individual	Improved Environmental Management Practices
Additional improvements	Write an Accident Prevention procedure for Facility	90	Risk assesment carried out for the site.	Individual	Improved Environmental Management Practices
Reduction of emissions to Water	Install Petrol/ Oil Interceptor on SW discharge to river	10	To be installed	Individual	Reduced emissions

<b>Noise monitoring summary report</b>	Lic No: W0011-02	Year	2016
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- 1 Was noise monitoring a licence requirement for the AER period?  
If yes please fill in table N1 noise summary below
- 2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?
- 3 Does your site have a noise reduction plan?
- 4 When was the noise reduction plan last updated?
- 5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

[Noise Guidance note NG4](#)

**Table N1: Noise monitoring summary**

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA <sub>eq</sub>	LA <sub>90</sub>	LA <sub>10</sub>	LA <sub>max</sub>	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is site compliant with noise limits (day/evening/night)?
27/05/2015	30	NSL1	55	49.6	39.3	45.9	81.1	No	SELECT	Chain saw -Distance(9), Passing Aeroplane (2), Passing Van (4)	Yes
27/05/2015	30	NSL4	55	<b>62.6</b>	47.2	66.2	82.4	No	SELECT	Car Passing (59), Banging noise (13), Car Passing with trailer (12)	Yes

\*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?

** please explain the reason for not taking action/resolution of noise issues?
Any additional comments? (less than 200 words)

## Resource Usage/Energy efficiency summary

Lic No:

W0011-02

Year

2016

## Additional information

- 1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below
- Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information
- 2 Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information
- 3

Enter date of audit	not carried out
No	
SELECT	Not applicable

Table R1 Energy usage on site

Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	6.3	7.9		1.575
Total Energy Generated (MWHrs)	0	0		7.875
Total Renewable Energy Generated (MWHrs)	0	0		
Electricity Consumption (MWHrs)	6.3	7.9		1.161
Fossil Fuels Consumption:				5.461
Heavy Fuel Oil (m3)	0	0		
Light Fuel Oil (m3)	4.3	5.5		
Natural gas (m3)	0	0		
Coal/Solid fuel (metric tonnes)	0	0		
Peat (metric tonnes)	0	0		
Renewable Biomass	0	0		
Renewable energy generated on site	0	0		

\* 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 on site

Water use	Water extracted Previous year m3/yr.	Water extracted Current year m3/yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Water Emissions	Water Consumption	Unaccounted for Water:
					Volume Discharged back to environment(m <sup>3</sup> /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	
Groundwater	0	0					
Surface water	0	0					
Public supply	10.5	9.6			9.6	0	
Recycled water	0	0					
Total	10.9	9.6					

\* 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

Table R3 Waste Stream Summary

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

**Resource Usage/Energy efficiency summary** Lic No: W0011-02 Year 2016

Table R4: Energy Audit finding recommendations

Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	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 on Site					



<b>WASTE SUMMARY</b>	Lic No: W0011-02	Year: 2016
<b>SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES</b>	<a href="#">PRTR facility logon</a>	dropdown list click to see options

**SECTION B- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES**

- 1 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 boundaries is to be captured through PRTR reporting)  
 If yes please enter details in table 1 below
- 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
- 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

Additional Information	
No	
No	
No	

**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)**

Licensed annual tonnage limit for your site (total tonnes/annum)	EWC code	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description - which applies to relevant EWC code <a href="#">European Waste Catalogue EWC codes</a>	Quantity of waste accepted in current reporting year (tonnes)	Quantity of waste accepted in previous reporting year (tonnes)	Reduction/ Increase over previous year +/- %	Reason for reduction/ increase from previous reporting year	Packaging Content (%)- only applies if the waste has a packaging component	Disposal/Recovery or treatment operation carried out at your site and the description of this operation	Quantity of waste remaining on site at the end of reporting year (tonnes)	Comments -
	<a href="#">European Waste Catalogue EWC codes</a>										

**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?

N/A	
Yes	
Yes	
No	
N/A	

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

**Table 2 Waste type 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
	0	0	0	No tonnage for waste disposal

**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?	Accepted asbestos in reporting year	Total disposal area occupied by waste	Lined disposal area occupied by waste	Unlined area
										SELECT UNIT	SELECT UNIT	SELECT UNIT
Ballymurtagh Landfill	1989	2003	No	Public	Non Hazardous	2003	No		No	16,000 sq.m	0	16,000 sq.m

<b>WASTE SUMMARY</b>	Lic No: W0011-02	Year: 2016
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**Table 4 Environmental monitoring-landfill only** [Landfill Manual-Monitoring Standards](#)

Was meteorological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments
yes	yes	yes	Yes	Yes	Yes	No	No	

+ 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 final cap to LD Standard m <sup>2</sup> ha, a	Area capped other	Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments
0	0	16,000	0	0	GCL	

\*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?

No

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

No

Volume of leachate in reporting year(m <sup>3</sup> )	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH <sub>4</sub> ) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate 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 m <sup>3</sup>	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
1099903	0	0	Yes	Captured gas taken from LFG survey, average flow * hours

Comments on liner type
unlined



[Guidance to completing the PRTR workbook](#)

# PRTR Returns Workbook

Version 1.1.19

<b>REFERENCE YEAR</b>	2016
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## 1. FACILITY IDENTIFICATION

Parent Company Name	Wicklow County Council
Facility Name	Ballymurtagh Landfill Facility
PRTR Identification Number	W0011
Licence Number	W0011-02

### Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Ballymurtagh, Ballygahan Upper, Ballygahan Lower
Address 2	Tinnahinch
Address 3	
Address 4	
	Wicklow
Country	Ireland
Coordinates of Location	-6.22452 52.8711
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials

<b>AER Returns Contact Name</b>	Robert Kelly
<b>AER Returns Contact Email Address</b>	rkelly@wicklowcoco.ie
<b>AER Returns Contact Position</b>	Senior Executive Technician
<b>AER Returns Contact Telephone Number</b>	0404 20127
<b>AER Returns Contact Mobile Phone Number</b>	086 8517617
<b>AER Returns Contact Fax Number</b>	0404 67792
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0
<b>Number of Operating Hours in Year</b>	0
<b>Number of Employees</b>	2
<b>User Feedback/Comments</b>	
<b>Web Address</b>	

## 2. PRTR CLASS ACTIVITIES

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

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

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

## 4. WASTE IMPORTED/ACCEPTED ONTO SITE

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

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities)

? No

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

29/03/2017 12:01

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

RELEASES TO AIR		
POLLUTANT		
No. Annex II	Name	M/C/E
01	Methane (CH4)	C
03	<b>Carbon dioxide (CO2)</b>	C

\* 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		
POLLUTANT		
No. Annex II	Name	M/C/E

\* 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		
POLLUTANT		
Pollutant No.	Name	M/C/E

\* 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:

Ballymurtagh Landfill Facility

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

	T (Total) kg/Year	M/C/E
Total estimated methane generation (as per site model)	317608.832	C
Methane flared	110075.817	M
Methane utilised in engine/s	0.0	
Net methane emission (as reported in Section A above)	207533.015	C

Please enter all quantities in this section in KGs					
METHOD		QUANTITY			
Method Used					
Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
OTH	Gas Sim 2.5 & Emissions from flare	2246.435	207533.015	0.0	205286.58
OTH	Gas Sim 2.5 & Emissions from flare	7596.257	685562.985	0.0	677966.728

Please enter all quantities in this section in KGs					
METHOD		QUANTITY			
Method Used					
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

Please enter all quantities in this section in KGs					
METHOD		QUANTITY			
Method Used					
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

Method Used		
Method Code	Designation or Description	Facility Total Capacity m3 per hour
OTH	Gassim 2.5	N/A
OTH	Flare Data	500.0 (Total Flaring Capacity)
		0.0 (Total Utilising Capacity)
OTH	Methane generated - flared d	N/A



**4.2 RELEASES TO WATERS**

[Link to previous years emissions data](#)

| PRTR# : W0011 | Facility Name : Ballymurtagh Landfill Facility | Filena

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

**Data on ambient monitoring of storm/surface water or groundwater**

RELEASES TO WATERS				
POLLUTANT		M/C/E	Method Used	
No. Annex II	Name		Method Code	Designation or Description

\* 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				
POLLUTANT		M/C/E	Method Used	
No. Annex II	Name		Method Code	Designation or Description

\* 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				
POLLUTANT		M/C/E	Method Used	
Pollutant No.	Name		Method Code	Designation or Description

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

r, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

Please enter all quantities in this section in KGs			
QUANTITY			
Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
0.0	0.0	0.0	0.0

Please enter all quantities in this section in KGs			
QUANTITY			
Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
0.0	0.0	0.0	0.0

Please enter all quantities in this section in KGs			
QUANTITY			
Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
0.0	0.0	0.0	0.0

**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			
POLLUTANT		METHO	
No. Annex II	Name	M/C/E	Met
			Method Code

\* 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			
POLLUTANT		METHO	
Pollutant No.	Name	M/C/E	Met
			Method Code

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

Please enter all quantities in this section in KGs				
D	QUANTITY			
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

Please enter all quantities in this section in KGs				
D	QUANTITY			
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

#### 4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : W0011 | Facility Name : Ballymurta

#### SECTION A : PRTR POLLUTANTS

RELEASES TO LAND			
POLLUTANT		METHO	
No. Annex II	Name	M/C/E	Method Code

\* 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			
POLLUTANT		METHO	
Pollutant No.	Name	M/C/E	Method Code

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

Please enter all quantities in this section in KGs			
D	QUANTITY		
Method Used			
Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
	0.0	0.0	0.0

Please enter all quantities in this section in KGs			
D	QUANTITY		
Method Used			
Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
	0.0	0.0	0.0

**5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE**

| PRTR# : W0011 | Facility Name : Ballymurtagh Landfill Facility | Filename : Ballymurtagh 2016 AER.xls | Return

**Please enter all quantities on this sheet in Tonnes**

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used	
						M/C/E	Method Used
Within the Country	13 02 05	Yes	2.3	mineral-based non-chlorinated engine, gear and lubricating oils	R9	M	Weighed
Within the Country	15 01 01	No	65.0	paper and cardboard packaging	R3	M	Weighed
Within the Country	15 01 02	No	20.18	plastic packaging	R13	M	Weighed
Within the Country	15 01 04	No	16.55	metallic packaging	R4	M	Weighed
Within the Country	15 01 05	No	7.22	composite packaging	R13	C	Volume Calculation
Within the Country	15 01 07	No	74.74	glass packaging	R5	M	Weighed
Within the Country	16 06 01	Yes	2.8	lead batteries	R4	M	Weighed
Within the Country	16 06 04	No	0.68	alkaline batteries (except 16 06 03)	R4	M	Weighed

Within the Country	20 01 01	No	106.0 paper and cardboard	R3	M	<a href="#">Weighed</a>
Within the Country	20 01 01	No	0.0 paper and cardboard	R3	M	<a href="#">Weighed</a>
Within the Country	20 01 01	No	0.0 paper and cardboard	R3	M	<a href="#">Weighed</a>
To Other Countries	20 01 11	No	27.52 textiles	R3	M	<a href="#">Weighed</a>
Within the Country	20 01 21	Yes	0.19 fluorescent tubes and other mercury-containing waste	R4	M	<a href="#">Weighed</a>
To Other Countries	20 01 25	No	0.3 edible oil and fat	R1	M	<a href="#">Volume Calculation</a>
Within the Country	20 01 33	Yes	0.16 batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these	R4	M	<a href="#">Weighed</a>
Within the Country	20 01 40	No	65.86 metals	R4	M	<a href="#">Weighed</a>
Within the Country	20 03 01	No	11.6 mixed municipal waste	D1	M	<a href="#">Weighed</a>

\* 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](#)

Location of Treatment	<u>Haz Waste</u> : Name and Licence/Permit No of Next Destination Facility Non- <u>Haz Waste</u> : Name and Licence/Permit No of Recover/Disposer	<u>Haz Waste</u> : Address of Next Destination Facility Non- <u>Haz Waste</u> : Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Offsite in Ireland	ENVA,W184-01 Irish Packaging	Clonmannon Industrial Estate,,Portlaoise,Co. Laois,Ireland	Enva,W184-01,Clonmannon Industrial Est.,,Portlaoise,Co.Laois,Ireland	Clonmannon Industrial Est.,,Portlaoise,Co.Laois,Ireland
Offsite in Ireland	Recycling,W0263-01	Lower,,Dublin ,,Ireland		
Offsite in Ireland	Shabra Plastics,..	,,Castleblaney,Co. Monaghan,Ireland		
Offsite in Ireland	Glassco Ltd.,WP247/2006	,,Naas,Co. Kildare,Ireland		
Offsite in Ireland	Irish Packaging Recycling (Panda Waste),W0263-01	Ballymount Road,Walkinstown,Dublin ,12,Ireland		
Offsite in Ireland	Glassco Ltd.,WP247/2006	,,Naas,Co. Kildare,Ireland		
Offsite in Ireland	Recycling Village,WP 2007/20	,,Monisterboice,Co.Louth,Ireland	Recycling Village,WP 2007/20,,Monisterboice,Co.Louth,Ireland	,,Monisterboice,Co.Louth,Ireland
Offsite in Ireland	KMK Metals Recycling Ltd,W0113-04	Cappincur Ind.Est.,Daingean Road,Tullamore,Co.Offaly,Ireland		

Offsite in Ireland	Greenstar,W0053-03	.,Fassaroe,Bray,Co.Wicklow,Ireland		
Offsite in Ireland	Irish Packaging Recycling (Panda Waste),W0263-01	Ballymount Road,Walkinstown,Dublin ,12,Ireland		
Offsite in Ireland	WCDA Wexford 2000,WFP-WX-09-0004-01	Rosslare rd.,,Wexford,Co.Wexford,Ireland		
Abroad	Cookstown Textiles,.	.,,Cookstown ,Co.Tyrone,United Kingdom		
Offsite in Ireland	KMK Metals Recycling Ltd,W0113-04	Cappincur Ind.Est.,Daingean Road,Tullamore,Co.Offaly,Ireland	KMK Metals Recycling Ltd.,W0113-04,Cappincur Ind. Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	Cappincur Ind. Estate,Daingean Road,Tullamore,Co. Offaly,Ireland
Abroad	Frylite,.	.,,.,Belfast,United Kingdom		
Offsite in Ireland	KMK Metals Recycling Ltd,W0113-04	Cappincur Ind.Est.,Daingean Road,Tullamore,Co.Offaly,Ireland	KMK Metals Recycling Ltd.,W0113-04,Cappincur Ind. Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	Cappincur Ind. Estate,Daingean Road,Tullamore,Co. Offaly,Ireland
Offsite in Ireland	Leon Recycling,WP/ESS/15/8/12	Croghan Industrial Estate,.,Arklow,Co.Wicklow,Ireland		
Offsite in Ireland	Leon Recycling,WP/ESS/15/8/12	Croghan Industrial Estate,.,Arklow,Co.Wicklow,Ireland		