

SELECT

cells that are highlighted blue contain a dropdown menu click to select one option from the list

[guidance document link](#)

cells that contain underlined text click to access relevant guidance documents for this section

Table heading *

table headings followed by a symbol have an associated footnote or instructions

Cells with red indicator in top right corner

cells that have a red indicator in the top right corner contain a comment box with further instructions or clarification

Please note an interpretation of results is still required. This should be entered in the additional information/comments boxes within the templates. Please size these boxes appropriately in the excel template and merge it as part of the AER PDF document. The excel template should have all cells sized appropriately so that all text is visible.

Appropriately to fit your interpretation, if additional space is required please include an appendix to the AER
Text is readable before it is converted to PDF document.

Facility Information Summary	
AER Reporting Year	2016
Licence Register Number	W0078-03
Name of site	Ballaghveny Landfill
Site Location	Ballymackey, Nenagh, Co.Tipperary
NACE Code	38.2.1
Class/Classes of Activity	Waste Disposal Activities: Class 1, 2, 4, 5, 11, 12, 13. Waste Recovery Activities: Class 2, 3, 4, 10, 11, 13
National Grid Reference (6E, 6 N)	080251E 525319N
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.	Closed landfill for non-hazardous waste. Any exceedance of licence limits are detailed in this report.

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.

<u>Justine Haugh</u>	<u>21-07-17</u>
Signature	Date
Environmental Technician	
(or nominated, suitably qualified and experienced deputy)	

AIR-summary template	Lic No:	W0078-03	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	Flare Stack Emission

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 1	Nitrogen oxides (NOx/NO2)	annual	150	No 30min mean can exceed the ELV	51.68	mg/Nm3	yes	EN 14792:2005	53.6	
Flare 1	Carbon monoxide (CO)	annual	50	No 30min mean can exceed the ELV	4.18	mg/Nm3	yes	EN 15058:2004	4.33	
Flare 1	volumetric flow	continuous	500	No 30min mean can exceed the ELV	119	Nm3/hour	yes	OTH	N/A	
	SELECT			SELECT		SELECT	SELECT	SELECT		

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

AIR-summary template	Lic No: W0078-03	Year: 2016
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

Table A2: Summary of average emissions -continuous monitoring

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: W0078-03 Year 2016

Additional information	
<p>1 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 licensed emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections</p>	<p>No There is licensed emissions for discharge of storm water to surface water. Results from this are given in Table W1.</p>
<p>2 Was it a requirement of your licence to carry out visual inspections on any surface water 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</p>	<p>Yes</p>

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licensed 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
SW1	onsite	SELECT	Ammonia (as N)	monthly	0.3	All results < 1.2 x ELV	0.1	mg/L	yes	Average value of monthly monitoring.
SW1	onsite		pH	monthly	N/A	All results < 1.2 x ELV	8.01	pH units	yes	Average value of monthly monitoring.
SW1	onsite		Conductivity	monthly	N/A	All results < 1.2 x ELV	316	µS/cm @20oC	yes	Average value of monthly monitoring.
SW3	onsite		Ammonia (as N)	monthly	0.3	All results < 1.2 x ELV	0.13	mg/L	yes	Average value of monthly monitoring.
SW3	onsite		pH	monthly	N/A	All results < 1.2 x ELV	7.79	pH units	yes	Average value of monthly monitoring.
SW3	onsite		Conductivity	monthly	N/A	All results < 1.2 x ELV	309	µS/cm @20oC	yes	Average value of monthly monitoring.
SW4	onsite		Ammonia (as N)	monthly	0.3	All results < 1.2 x ELV	0.13	mg/L	yes	Average value of monthly monitoring.
SW4	onsite		pH	monthly	N/A	All results < 1.2 x ELV	7.98	pH units	yes	Average value of monthly monitoring.
SW4	onsite	SELECT	Conductivity	monthly	N/A	All results < 1.2 x ELV	351	µS/cm @20oC	yes	Average value of monthly monitoring.

<p>3 Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below</p>	<p>SELECT</p>	<p>Additional information</p>
<p>4 Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box</p>	<p>SELECT</p>	<p>Additional information</p>

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

Emission reference no:	Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision thereof ^{Note 2}	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural reference source	Procedural reference standard number	Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT			

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

Continuous monitoring
 5 Does your site carry out continuous emissions to water/sewer monitoring? Additional Information

<input type="text" value="No"/>	
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If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below

<input type="text" value="SELECT"/>	
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7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?

<input type="text" value="SELECT"/>	
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8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below

<input type="text" value="SELECT"/>	
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Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/ Substance	ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Monitoring Equipment downtime (hours)	Number of ELV exceedences in reporting year	Comments
	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>		<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>					
	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>		<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="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?	When was this report submitted?
						<input type="text" value="SELECT"/>	

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

Yes	
3 years	
Yes	One leachate lagoon. Four surface water lagoons.
5 Lagoons	
5	
none	
No	
0	
0	
0	

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?

No	Leachate lagoon has a high level pump cut off
N/A	
N/A	

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

[bundings and storage guidelines](#)

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)

No	
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

Groundwater/Soil monitoring template	Lic No: W0078-03	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 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)	yes
6	Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	yes
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?	yes
11	Have potential receptors been identified on and off site?	yes
12	Is there evidence that contamination is migrating offsite?	yes

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 interpretation as an additional section in this AER

Work is ongoing to find a solution to managing the contamination issues.

A timeframe is not yet finalised.

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
27/07/2016	GW5	Ammonia	EPA Lab	Quarterly	0.46	0.46	mg/l	0.3	trigger	no
27/07/2016	GW5	Conductivity	EPA Lab	Quarterly	643	643	µS/cm @25oC	1000	trigger	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	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
Various	GW9	Ammonia	BHP Lab	Monthly	15.5	9.34	mg/l	0.3	trigger	no
Various	GW9	Conductivity	BHP Lab	Monthly	1625	1340	µS/cm @25oC	1000	trigger	no

Groundwater/Soil monitoring template		Lic No:	W0078-03	Year	2016
<p>*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.</p>		<p>Groundwater monitoring template</p>			
<p>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 (see the link in G31)</p>		<p>Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).</p>			
<p>**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)</p>		<p> Groundwater regulations Drinking water (private supply) standards Drinking water (public supply) standards Interim Guideline Values (IGV) </p> <p> Surface water EQS GTV's </p>			

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:	W0078-03	Year	2016
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[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	
3	Amount of Financial Provision cover required as determined by the latest ELRA	€2,396,550	
4	Financial Provision for ELRA status	Submitted and not agreed by EPA;	Insurance cover in place.
5	Financial Provision for ELRA - amount of cover	€20million	
6	Financial Provision for ELRA - type	Other please specify	Pollution / Contamination Insurance Cover for pollution / contamination which arises from sudden, identifiable, unintended and unexpected occurrence up to €20million.
7	Financial provision for ELRA expiry date	N/A	
8	Closure plan initial agreement status	Closure plan submitted and not agreed by EPA	
9	Closure plan review status	Review required and completed	
10	Financial Provision for Closure status	Submitted and agreed by EPA	The rest of the costs which amount to €13,846,671 spread over the years 2016 to 2046 will be funded through the annual landfill aftercare budget of Tipperary County Council.
11	Financial Provision for Closure - amount of cover	€13,846,671	
12	Financial Provision for Closure - type	Other please specify	The site is closed. Any further restoration or remediation work required will be covered through the TCC budget or by a loan.
13	Financial provision for Closure expiry date	N/A	

Environmental Management Programme/Continuous Improvement Programme template		Lic No:	W0078-03	Year	2016
Highlighted cells contain dropdown menu click to view		Additional Information			
1	Do you maintain an Environmental Management System (EMS) for the site. If yes, please detail in additional information	Yes	Accredited to ISO14001		
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
Additional improvements	Improve site security	60	<p>Pumping and other electrical equipment onsite to be installed in secure concrete sheds with lights and alarm instead of metal containers. Final switch over to be completed and metal containers removed from site.</p> <p>Additional CCTV cameras to be installed at the site near pump houses and back gate.</p> <p>A 24hr on call security company to be assigned to the site.</p> <p>Boundary fences to be maintained in good condition. Repairs to be carried out where necessary. New fence to be erected along land to be sold.</p> <p>Gate to bog road to be made more secure.</p>	Louise Ryan Anne Peters Justine Haugh	Increased compliance with licence conditions
Groundwater protection	Establish a management system for limiting groundwater contamination.	40	The pumping trial will continue in 2017. Following the completion of the pumping trial it should be possible to create a management strategy to minimise groundwater contamination.	Louise Ryan Anne Peters	Remediation of contamination on site
Groundwater protection	Establish a management system for limiting groundwater contamination.	40	<p>A pumping trial will resume in early 2017. This could take 3 months to complete. Significant resources required for this work.</p> <p>Buy a HACH spectrophotometer and NH3 testing kit. Proper lab facilities to be installed.</p>	Louise Ryan Anne Peters Justine Haugh	Remediation of contamination on site
Groundwater protection	Upgrade leachate loading area	50	<p>Improved concrete loading area, will contain any spillage that may occur.</p> <p>Review the option of installing a second leachate lagoon.</p>	Louise Ryan Anne Peters Justine Haugh	Improved Environmental Management Practices
Additional improvements	Re-open the site to fill the built void space	0	Carry out any works required to bring the site up to standard so that it can be re-opened	Louise Ryan Anne Peters	Improved Environmental Management Practices

Environmental Management Programme/Continuous Improvement Programme template				Lic No:	W0078-03	Year	2016
Additional improvements	Upgrade the site SCADA	10	Upgrade all SCADA to cloud system Remove non-useful wells from scada	Louise Ryan Anne Peters Justine Haugh		Improved Environmental Management Practices	
Additional improvements	Improve site office facilities	30	Improve internet connection. Vodaphone to install upgraded internet Site procedures and risks assessments to be provided in paper copy until internet is improved. Provide for new PCs and office space for three people	Louise Ryan Anne Peters Justine Haugh		Improved staff facilities	
Landfill Gas Balancing	Improve gas management	40	Work towards TCC carrying out LFG balancing Follow up on IBS comments and IBS reports to be received in a timely manner	Louise Ryan Justine Haugh		Improved Environmental Management Practices	
Additional improvements	Make safe all cables and pipes on the site	10	Put all cables and pipes underground to prevent them from becoming damaged and to reduce the amount of herbicide use on the site	Louise Ryan Anne Peters Justine Haugh		Improved Environmental Management Practices	

Noise monitoring summary report

Lic No: W0078-03

Year

2016

1 Was noise monitoring a licence requirement for the AER period?

Yes

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?

Noise
Guidance
note NG4

Yes

3 Does your site have a noise reduction plan

No

4 When was the noise reduction plan last updated?

Enter date

5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

No

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	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)?
13/10/2016	30mins		NSL1	65	40		84	No		The predominant noise recorded was vehicle noise not associated with the landfill	Yes
13/10/2016	30mins		NSL2	60	35		84	No		The predominant noise recorded was vehicle noise on-site, cattle calling and birds chirping.	Yes
13/10/2016	30mins	B1		42	35		67	No		The predominant noise recorded was off-site vehicle noise, birds chirping and cattle calling.	Yes
13/10/2016	30mins	B2		55	38		83	No		The predominant noise recorded birds chirping an alarm going off, traffic noise from the M7 motorway and on-site vehicle noise.	Yes
13/10/2016	30mins	B3		43	39		60	No		The predominant noise recorded was construction machinery, people talking and a pump operating.	Yes
13/10/2016	30mins	B4		60	37		89	No		The predominant noise recorded was traffic noise from an adjacent road, machinery noise, cows calling and birds chirping.	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:

W0078-03

Year

2016

- 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

[SEAI - Large](#)
[Industry Energy Network \(LIEN\)](#)

Additional information

	2009	
No		
N/A		

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)	62.511	66.863		
Total Energy Generated (MWHrs)	0	0		
Total Renewable Energy Generated (MWHrs)	0	0		
Electricity Consumption (MWHrs)	62.511	66.863		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0	0		
Light Fuel Oil (m3)	0	0		
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	
					Volume Discharged back to environment(m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	Unaccounted for Water:	
Groundwater	0	0						
Surface water	0	0						
Public supply								
Recycled water	0	0						
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

Table R3 Waste Stream Summary

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

Resource Usage/Energy efficiency summary Lic No: W0078-03 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					

Complaints and Incidents summary template

Lic No: W0078-03

Year

2016

Complaints

Additional information

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

SELECT

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 information

Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below

Yes

*For information on how to report and what constitutes an incident

[What is an incident](#)

Table 2 Incidents summary

Date of occurrence	Incident nature	Location of occurrence	Incident category* please refer to guidance	Receptor	Cause of incident	Other cause(please specify)	Activity in progress at time of incident	Communication	Occurrence	Corrective action<20 words	Preventative action <20 words	Resolution status	Resolution date	Likelihood of reoccurrence
24/12/2016	Trigger level reached	LS06	1. Minor	Ground	Other (add details)	Groundwater ingress	Normal activities	EPA	Recurring	Pumped down leachate	N/A	Complete	13/01/2017	High
14/12/2016	Trigger level reached	LS06	1. Minor	Ground	Plant or equipment issues		Normal activities	EPA	Recurring	Pumped down leachate	N/A	Complete	19/12/2016	Low
12/10/2016	Breach of ELV	SWLs	1. Minor	Water	Other (add details)	Stagnant Water	Normal activities	EPA	Recurring	Cleaned Lagoons	N/A	Ongoing		High
12/10/2016	Breach of ELV	SWL4	1. Minor	Water	Other (add details)	Stagnant Water	Normal activities	EPA	Recurring	Cleaned Lagoons	N/A	Ongoing		High
18/04/2016	Breach of ELV	GW16, GW17	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High
18/04/2016	Breach of ELV	GW18	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High
18/04/2016	Breach of ELV	GW9, GW10, GW19, GW20, BH3	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High
16/09/2016	Uncontrolled release	Landfill Flare	1. Minor	Air	Plant or equipment issues		Normal activities	EPA	New	Restarted Flare	N/A	Complete	19/09/2016	Low
16/09/2016	Monitoring equipment offline	LS03	1. Minor	Ground	Plant or equipment issues		Normal activities	EPA	New	Installed new probe	N/A	Complete	24/09/2016	Low
25/08/2016	Uncontrolled release	B1-cap on Cell 8	1. Minor	Air	Other (add details)	Puncture in Cap	Normal activities	EPA	New	Repaired Permanent Cap	N/A	Complete	28/10/2016	Medium
18/07/2016	Breach of ELV	SWLs	1. Minor	Water	Other (add details)	Stagnant Water	Normal activities	EPA	Recurring	Clean Lagoons	N/A	Ongoing		High
18/07/2016	Breach of ELV	GW16 & GW17	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High

Complaints and Incidents summary template														Lic No: W0078-03		Year: 2016	
18/07/2016	Breach of ELV	GW18	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High			
18/07/2016	Breach of ELV	GW9, GW10, GW19, GW20, BH3	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High			
18/04/2016	Breach of ELV	SWLs	1. Minor	Water	Other (add details)	Stagnant Water	Normal activities	EPA	Recurring	Clean Lagoons	N/A	Ongoing		High			
16/03/2016	Breach of ELV	SWLs	1. Minor	Water	Other (add details)	Stagnant Water	Normal activities	EPA	New	Clean Lagoons	N/A	Ongoing		High			
24/05/2016	Breach of ELV	MP07	1. Minor	Air	Not related to site activities		Normal activities	EPA	New	N/A	N/A	Complete	25/05/2016	Low			
19/04/2016	Breach of ELV	GW16, GW17	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High			
19/04/2016	Breach of ELV	GW18	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High			
19/04/2016	Breach of ELV	GW9, GW10, GW19, GW20, BH3	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High			
16/03/2016	Breach of ELV	SWLs	1. Minor	Water	Other (add details)	Stagnant Water	Normal activities	EPA	New	Clean Lagoons	N/A	Complete	16/03/2016	High			
26/01/2016	Breach of ELV	GW9, GW10, GW19, GW20, BH3	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High			
26/01/2016	Breach of ELV	GW18	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High			
26/01/2016	Breach of ELV	GW16, GW17	1. Minor	Ground	Other (add details)	Groundwater issues	Normal activities	EPA	Recurring	Groundwater Investigations	N/A	Ongoing		High			
	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												24					
Total number of incidents previous year												17					
% reduction/increase												41.18% increase					

WASTE SUMMARY	Lic No: W0078-03	Year: 2016
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES	PRTR facility logon	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)

Additional Information	
No	Site is closed

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

No	
No	

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

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 European Waste Catalogue EWC codes	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 -
	European Waste Catalogue EWC codes										

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

SELECT	
SELECT	

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

SELECT	
SELECT	
SELECT	

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 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
Non-hazardous	49,000	0	129,045	

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
Ballaghveny Landfill	1984	2011	No	Public	Non Hazardous	Temporary closure in place.	No	No	No	Cells 1 - 10A	Cells 3 - 10A	Cells 1 & 2

WASTE SUMMARY	Lic No:	W0078-03	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	Yes	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 m2 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
SELECT UNIT	SELECT UNIT					
Phase 1		0 All capped			1 m thick cap comprising approximately 0.15 m of topsoil over 0.85 m of subsoil. No drainage layer at base of subsoil. No Flexible Membrane Liner	
Phase 2, 3 and 4		0 All capped			System incorporating: Gas Collection layer. LLDPE Liner layer. SW drainage geocomposite layer. 0.85 m subsoil layer, 0.15 m topsoil layer	

Table 6 Leachate-Landfill only

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

Yes
No

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

Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments
16,886					None	N/A	Leachate tankered offsite To WWTP

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
0	N/A		Yes	

Comments on liner type



[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2016
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1. FACILITY IDENTIFICATION

Parent Company Name	Tipperary County Council
Facility Name	Ballaghveny Landfill
PRTR Identification Number	W0078
Licence Number	W0078-03

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

Address 1	Ballymackey
Address 2	
Address 3	
Address 4	
Country	Tipperary
Coordinates of Location	Ireland
River Basin District	-7.46859 53.2333
NACE Code	IEGBNISH
Main Economic Activity	3821
AER Returns Contact Name	Treatment and disposal of non-hazardous waste
AER Returns Contact Email Address	Justine Haugh
AER Returns Contact Position	justine.haugh@tipperarycoco.ie
AER Returns Contact Telephone Number	Environmental Technician
AER Returns Contact Mobile Phone Number	0761065000
AER Returns Contact Fax Number	0870683827
Production Volume	
Production Volume Units	0.0
Number of Installations	1
Number of Operating Hours in Year	0
Number of Employees	1
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

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

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0078 | Facility Name : Ballaghveny Landfill | Filename : W0078-03 PRTR 2016.xls | Return Year : 2016 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD			Please enter all quantities in this section in KGs		QUANTITY		
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	C	OTH	Landgem Model & onsite flare records	0.0	627649.0	627649.0	0.0	0.0
02	Carbon monoxide (CO)	M	EN 15058:2004	EN15058:2006 NCIR by Horiba PG-250	4.33	0.0	4.33	0.0	0.0
08	Nitrogen oxides (NOx/NO2)	M	EN 14792:2005	EN14792:2006 Chemiluminescence	53.6	0.0	53.6	0.0	0.0
11	Sulphur oxides (SOx/SO2)	M	ALT	TGN 21 NDIR Absorption	24.83	0.0	24.83	0.0	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

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: [Ballaghveny Landfill](#)

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour
			Method Code	Designation or Description	
Total estimated methane generation (as per site model)	860227.0	C	OTH	Landgem	N/A
Methane flared	232578.0	C	OTH	EPA LFG Survey	500.0 (Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	627649.0	C	OTH	Landgem & EPA LFG Survey	N/A

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0078 | Facility Name : Ballaghveny Landfill | Filename : W0078-03 PRTR 2016.xls | Return Year : 2016 |

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Please enter all quantities on this sheet in Tonnes

0

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						Haz Waste : Name and Licence/Permit No of Recover/Disposer	Non-Haz Waste: Address of Recover/Disposer					
Within the Country	19 07 03	No	14346.24	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Limerick WWTP,D0013.01	Limerick WWTP,Bunlicky,Limerick ,,,Ireland		
Within the Country	19 07 03	No	2539.54	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Rilta Environmental Services,W0192-03	Rilta Environmental Services,Rathcoole,Dublin,,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](#)