Facility Information Summary					
AER Reporting Year	2017				
Licence Register Number	W0028-03				
Name of site		Ballydonag	sh Landfill		
Site Location	Ballydonagh, Dub	olin Road, At	thlone, County Westmeath	ı.	
NACE Code		382	21		
Class/Classes of Activity	Landfill closed 2	2010. Civic v	waste facility closed 2015.		
National Grid Reference (6E, 6 N)		(-)6.22878	3 53.3496		
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	This landfill closed in the civic waste facil	July 2010. T lity was close	The last section (1.3Ha) of t ed. Leachate removal incre	he land	fill was fully capped in 2012. In August 2015 om 2021 tonnes in 2016 to 4010 tonnes in
applicable) and what they relate to e.g. air, water, poise.	2017, a 98% increase.	The numbe	r of incidents in 2016 was : rest that ground water is le	10, com aking in	pared to 11 in 2017, a 10% increase. There is to and out of the landfill. This leak may be
	causing Ammonia lev	els to rise ir	BH5. In response to this it urvey of the area to establ	is the C	councils intention to carry out a Geophysical ere is a leak.
Declaration:	nort has been sheeke	d and corti	fied as being accurate. T	The	

Al the data and information prese	nted in this report has been checked and certified as being accurate.	The
A \ guality of the	information is assured to meet licence requirements.	
(λk)	7 March 2018.	
\sim		
Signature	Date	
Group/Facility manager		
(or nominated, suitably qualified and experienced deputy)		

	AIR-summary template	Lic No:	W0028-03	Year
	Answer all questions and complete all tables where relevant		Addit	tional information
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 <u>do not</u> need to complete the tables	Yes	Licence requires monito to the continuing dete quantity the flare was eigh	pring for Nox, CO, SO2 and VOC. Due prioration of landfill gas quality and reduced from 12 hours running to ht hours per day
	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	No		

<u>AGN2</u>

³ Was all monitoring carried out in accordance with EPA guidance monitoring checklist?
 Basic air monitoring checklist?

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

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision therof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
Flare stack	Nitrogen oxides (NOx/NO2)	Yearly	150) 100 % of values < ELV	122.35	mg/Nm3	yes	EN 14792:2005		
Flare stack	Carbon monoxide (CO)	Yearly	50	100 % of values < ELV	21.94	mg/Nm3	yes	EN 15058:2004		
Flare stack	Volatile organic compounds (as TOC)	Yearly	10	100 % of values < ELV SELECT	4.54	mg/Nm3 SELECT	yes SELECT	OTH SELECT		

SELECT

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

2017	

AIR-summary template	Lic No:	W0028-03	Year
		the second s	

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

SELECT	
SELECT	
SELECT	

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

No

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

Table A3: Abatement system bypass reporting table

Table A3:	able A3: Abatement system bypass reporting table Bypass protocol											
Date*	ate* Duration** (hours) Location Reason for bypass Impact magnitude											

* 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

2017	

AIR-summary	template				Lic No:	W0028-03	- <u>L</u> .	Year
Solvent	use and manageme	nt on site						
Do you have a tota	al Emission Limit Value of o	direct and fugitive emi	ssions on site? if y	es please fill out tables A4 and A	5		No	
Table A4: Solv Total VOC Emi	ent Management Pla ssion limit value	an Summary	Solvent_ regulations	Please refer to linked solver complete table 5	nt regulations to and 6			
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 therof	Compliance			
					SELECT			
					SELECT			
Table A5:	Solvent Mass Balan	ce summary						
	(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)
	L	I			1		Total	



AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)

Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If **you do not have** licenced emissions you <u>only</u> need to complete table W1 and or W2 for storm water analysis and visual inspections

Was it a requirement of your licence to carry out visual inspections on any surface 2 water discharges or watercourses on or near your site? If yes please complete table W2 below summarising <u>only any evidence of contamination noted during visual inspections</u>

There are 3 surface water monitoring points, SW1 is US of the site, SW2 is DS of the site and SW3 DS is located on an open drain that comes from around the landfill and the SW runoff from the old N6.

Additional information

W0028-03

Year

2017

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
SW1	upstream	SELECT	Ammonia (as N)	07/06/2017		SELECT	<0.41	mg/L	SELECT	Exceeds A1, complies with A2
SW1	upstream		Conductivity	07/06/2017		EX Young the	691	µS/cm @20oC		Complies with A1
SW1	upstream		BOD	07/06/2017			6	mg/L		Exceeds A1 & A2, complies with A3
SW2	downstream		Ammonia (as N)	07/06/2017			<0.41	mg/L	Lave As	Exceeds A1, complies with A2
SW2	downstream		Conductivity	07/06/2017		A CARLES CAR	696	µS/cm @20oC	1	Complies with A1
SW2	downstream	SELECT	BOD	07/06/2017		SELECT	5	mg/L	SELECT	Exceeds A1 & A2, complies with A3

Yes

Lic No:

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			SELECT		
			SELECT		

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

3 Was there any result in breach of licence requirements? If yes please provide b comment section of Table W3 below	rief details in the SELECT	Additional information]
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 4 require improvement in additional information box	Assessment of results checklist SELECT		

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 therof ^{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			
					n nit tit det i		문화 방법 등 등 방험 등 및		1 Alberta						
									a sale						

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

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER	R) Lic No:	W0028-03	Year	2017	
Continuous monitoring 5 Does your site carry out continuous emissions to water/sewer monitoring?	No	Additional Information			
If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)					
Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below	SELECT				
 7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site? 8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below 	SELECT				
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	
	SELECT	SELECT		SELECT	SELECT	SELECT					

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

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	Location	Resultant	Reason for	Corrective	Was a report	When was this report
			emissions	bypass	action*	submitted to the	submitted?
						EPA?	
						SELECT	
<u> </u>					A		l

*Measures taken or proposed to reduce or limit bypass frequency

Comments

Bund/Pipeline te	sting template				Lic No:	W0028-03	1	/ear	201	7	
Bund testing	7	dropdown mer	u click to see options				Additional information				
And your required by your			entainment structures 2 if yes n	lease fill out table D1 bol	ow listing all now hunds and		2 No. leachate holding tanks,				
Are you required by yo	our licence to undertake in	Itegrity testing on bunds and c	ontainment structures ? If yes p	lease fill out table B1 beit	ow listing all new burius and		Observations of leachate levels in				
the table below place	es on site, in audition to a	do the licensed testing period	(mobile hunds and chemstore)	included)	nobile ballas mast be listed in		both tanks indicate that there are no				
1	se include an bunds outsi	de the licenced testing period	C(nobile builds and chemstore	included)		Yes	leaks.				
2 Please provide integrit	ty testing frequency period	d				3 years					
Does the site maintain	n a register of bunds, unde	erground pipelines (including s	tormwater and foul), Tanks, sur	nps and containers? (con	tainers refers to "Chemstore"						
3 type units and mobile	bunds)					No					
4 How many bunds are	on site?						0				
5 How many of these bu	inds have been tested with	hin the required test schedule?	2				0				
6 How many mobile bur	nds are on site?						0				
7 Are the mobile bunds	included in the bund test	schedule?				SELECT					
8 How many of these m	obile bunds have been tes	ted within the required test sc	hedule?								
9 How many sumps on s	site are included in the inte	egrity test schedule?									
0 How many of these su	mps are integrity tested w	vithin the test schedule?									
Please list any sump i	ntegrity failures in table E	B1					Tex				
1 Do all sumps and char	nbers have high level liqui	d alarms?	_			No	1 leachate tank has a high level alarm				
2 If yes to Q11 are these	e failsafe systems included	in a maintenance and testing	programme?			Yes	Private wells				
3 Is the Fire Water Rete	ntion Pond included in you	ar integrity test programme?				No					
Tá	able B1: Summary details	of bund /containment structur	e integrity test	7							
Bund/Containment structure ID	Туре	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 failur explanation <50 w
	SELECT					SELECT			SELECT	SELECT	
	SELECT					SELECT			SELECT	SELECT	
* Capacity required should cor	mply with 25% or 110% containmen	t rule as detailed in your licence	•				Commentary				
Has integrity testing b	een carried out in accorda	nce with licence requirements	and are all structures tested in								
.5 line with BS8007/EPA	Guidance?			bunding and storage	quidelines	SELECT					
6 Are channels/transfer	systems to remote contai	nment systems tested?				SELECT					
.7 Are channels/transfer	r systems compliant in bot	h integrity and available volum	ne?			SELECT					
Pipeline/underg	round structure testing	-									
Are you required by w	our licence to undertake in		nd structures e gininelines or s	umps atc 7 if yas plaasa f	ill out table 2 below listing all						
1 underground structure	es and nizelines on site w	hich failed the integrity test a	nd all which have not been tes	ted within the integrity t	test period as specified	No					
2 Please provide integri	ty testing frequency period	d				SELECT					
*please note integrity	testing means water tight	- iness testing of all underground	d pipelines (as required under y	our licence)							
Tab	la P2: Cummani datalla af	pipeling (underground structure	ros interritutest								
lab	e oz: summary details of	pipeline/underground structu	res integrity test				1			1	
			at the second	S S S S L	a or the	title 1 de la	the state of the state of the			1.1	-

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 reterreporting year
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT

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

ilure		Scheduled date	Results of retest(if in
ilure Duurede	Connection entire taken	Scheduled date	current
U words	corrective action taken	for recest	reporting year)
	SELECT		
	SELECT		



Groundwater/Soil monitoring template	Lic No:	W0028-03	Year	2017	
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		Comments	
Are you required to carry out groundwater monitoring as part of your licence 1 requirements?	yes	Monitor 1 upgradient & 3 downgradient.	Please provide an interpretation of groundwater monitoring data in
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		the interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment 3 section	no		include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward 4 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. template	possible	Exceedances of IGV's are most likely a result of the underlying geological makeup.	
5 Is the contamination related to operations at the facility (either current and/or historic) unsure		
6 Have actions been taken to address contamination issues? If yes please summarise		The landfill has been	
remediation strategies proposed/undertaken for the site	yes	fully capped.	
7 Please specify the proposed time frame for the remediation strategy	24 months		High levels of Ammonia have been recorded in BH5 which is
8 Is there a licence condition to carry out/update ELRA for the site?	yes		downgradient of the landfill. It is located in a forest area, where the
9 Has any type of risk assesment been carried out for the site?	yes	submitted	well head is set low to the ground and uncovered. A cap was placed
10 Has a Conceptual Site Model been developed for the site?	no		on it in January 2017 to prevent organic matter falling into it. There
11 Have potential receptors been identified on and off site?	yes	private wells	has been an improvement in the Ammonia concentration in H1 & H2
12 Is there evidence that contamination is migrating offsite?	unsure		of 2017 (2.78 & <0.41) compared to 2016 (3.15 & 2.0).

Table 1: Upgradient Groundwater monitoring results

										Upward trend in
										pollutant
								4		concentration
	Sample							1		over last 5 years
Date of	location	Parameter/		Monitoring	Maximum	Average				of monitoring
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	data
		Total oxidised			2.4	2.4				
06/12/2017	BH7	nitrogen		Annual			mg/l			up on last year
06/12/2017	BH7	Iron		Annual	0.27	0.27	mg/l			up on last year
06/12/2017	BH7	Sulphate	2	Annual	15.2	15.2	mg/l			up on last year
		Ammoniacal			<0.41	<0.41				
06/12/2017	BH7	Nitrogen		Annual			mg/l			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

										Upward trend in yearly average pollutant concentration]	
Data of	Sample	Decemptor/		Monitoring	Maximum	Average				of monitoring		
sampling	reference	Substance	Methodology	frequency	Concentration	Concentration	unit	GTV's*	SELECT**	data		
our philip	101010100	Total oxidised	3/		2.2	2.2					1	
06/12/2017	BH5	nitrogen		Annual			mg/t			up on last year		
06/12/2017	BH5	Iron		Annual	<0.23	<0.23	mg/l			no]	
06/12/2017	BH5	Sulphate		Annual	11.2	11.2	mg/i	Ĵ		up on last year		
		Ammoniacal			<0.41	<0.41						
06/12/2017	BH5	Nitrogen		Annual			mg/l			no	_	
		Total oxidised			<0.70	<0.70						
06/12/2017	BH8	nitrogen		Annual		÷	mg/l			no	4	
06/12/2017	BH8	Iron		Annual	0.42	0.42	mg/l			up on last year	4	
06/12/2017	BH8	Sulphate		Annual	18,1	18.1	mg/l			up on last year	4	
06/10/2017	DUO	Ammoniacai			<0.41	<0.41	mall					
06/12/2017	рпо	Nitrogen	100000000000000000000000000000000000000	Annual	-0.41	-0.41	Ing/1	L.				
*please note trend in result the Groundwa	exceedance of g is for a substance ter Monitoring G	eneric assessment o indicates that furth uideline Template R	interia (GAC) such er interpretation o eport at the link p	as a Groundwater Th of monitoring results is rovided and submit se by the EPA.	reshold Value (GTV) or required. In addition t parately through ALDE	an Interim Guideline o completing the ab R as a licensee return	Value (IGV) or an upward ove table, please complete n or as otherwise instructed	Grou	ndwater monito	aring template		
More information criteria (GAC) au link in G31)	on on the use of nd risk assessme	soll and groundwate nt tools is available i	r standards/ gene n the EPA publishe	ric assessment ed guidance (see the	Guidance on the	Management of (Contaminated Land and G	iroundwater	at EPA Licensed	<u>Sites (EPA 2013).</u>		
**Depending the GTV e.g. if	on location of th the site is close t	e site and proximity to surface water com	to other sensitive spare to Surface V compare results	receptors alternative Vater Environmental C s to the Drinking Wate	Receptor based Water wality Standards (SWE) r Standards (DWS)	Quality standards sh 25), 1f the site is clos	ould be used in addition to e to a drinking water supply	Surface water EQS	Groundwater regulations <u>GTV's</u>	Drinking water (private supply) standards	Drinking water (public supply) standards	Interio Value

Groundwater/Soil monitoring template Lic No: W0028-03 Year 2017	Groundwater/Soil monitoring template	Lic No:	W0028-03	Year	2017		
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Table 3: So	able 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

- 1	Environmental Liabilities template	Lic No:	W0028-03
	Click here to access EPA guidance on Environmental Liabilities and Financial		
	provision		
			Commentary
1	ELRA initial agreement status	Required but not submitted	Ballydonagh is an engineered landfill with a sealed underliner. The landfill closed in 2010 and the last phase was permanently capped in 2012. The leachate is removed from two holding tanks as required and an extensive monitoring regime is in place in and around the landfill. A 1000m3 flare was reduced from operating from 12 hours per day to 8 hours per day. This was required due to the drop off in gas quality and quantity. The flare burns the gas at 1000C while regular gas balancing is carried out to ensure the maximumlandfill gas is extracted.
2	ELRA review status	SELECT	
3	Amount of Financial Provision cover required as determined by the latest ELRA	Specify	
4	Financial Provision for ELRA status	SELECT	
5	Financial Provision for ELRA - amount of cover	Specify	
6	Financial Provision for ELRA - type	SELECT	
7	Financial provision for ELRA expiry date	Enter expiry date	
8	Closure plan initial agreement status	Closure plan submitted and agreed by E	PA
9	Closure plan review status	SELECT	
10	Financial Provision for Closure status	SELECT	Westmeath County Council will draw from reserved internal capital resources to fund the ongoing aftercare of the landfill.
11	Financial Provision for Closure - amount of cover	Specify	
			Westmeath County Council will draw from reserved internal capital resources to fund the ongoing
12	Financial Provision for Closure - type	SELECT	aftercare of the landfill.
13	Financial provision for Closure expiry date	Enter expiry date	

Year	2017

	Environmental Management Programme/Continuous Improvement Programme	e template	Lic No:	W0028-03
	Highlighted cells contain dropdown menu click to view		Additional Informat	tion
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes	The purpose of the in accordance wi practice and to im	e EMS is to ensure the operation of the site is th regulatory requirements and best landfill plement a schedule of objectives and targets.
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes	Since the landfill cl gas collection s	losed the emphasis is on, management of the system, the operation of the flare and the collection of leachate.
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes	The main objectiv to determine wh repairs to the gas c	tes for 2018: 1)Carry out a geophysical survey nether the underliner is leaking. 2) Carry out collection system. 3)Maximise flaring of landfill gas.
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	Local residents ha and are c	ave their well water monitored by the council contacted regarding adverse findings.

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes				
				CELECT.	CELECT.				
SELECT		SELECT		SELECI	SELECT				
SELECT		SELECT		SELECT	SELECT				
SELECT		SELECT		SELECT	SELECT				

	Ν	loise monitor	ing summary I	report			Lic No:	W0028-03	Year	
Was noise me	onitoring a licen fill in table N1 no	ce requirement fo bise summary belo	or the AER period?					No]	
		,					Noise		7	
Was noise m [,]	onitoring carried	l out using the EP	A Guidance note, i	including co	mpletion of	the	Guidance	SELECT		
"Checklist for	r noise measurei	ment report" inclu	ided in the guidan	ice note as t	able 6?		note NG4			
Does your sit	e have a noise r	eduction plan						SELECT		
When was th	e noise reductio	on plan last update	ed?					Enter date	-	
Have there b	een changes rel	evant to site nois	e emissions (e.g. p survey?	lant or ope	rational char	nges) since i	the last noise	SELECT		
Table N1: No	ise monitoring	summary]				
						8		 1. Provide A.2.1 		
Date of monitoring	Time period	Noise location (on site)	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 noise source & extraneou road traffic)

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

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

SELECT

** please explain the reason for not taking action/resolution of noise issues?

Any additional comments? (less than 200 words)

(ex. main es on site, us noise ex.)	Is <u>site</u> compliant with noise limits (day/evening/night)?
	SELECT

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

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)				
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (I	WWHrs)			
Electricity Consumption (MWHrs)	40.87	38.09		6.8% reduction
Fossil Fuels Consumption:		· · · · · · · · · · · · · · · · · · ·		
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)				
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)				
Renewable Biomass				
Renewable energy generated on site			1.	

Resource Usage/Energy efficiency summary

г

* 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		2 Water usage on site			Water Emissions	Water Consumption		
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*	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	0					
Public supply	no figures. Low	no figures. Low						
Recycled water	(0 (כ					
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			Incineration Recycled	
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)					

tion

Year

W0028-03

Lic No:

2017

Resource Usage/Energy efficiency summary	Lic No:	W0028-03	Year	2017

Table R	4: Energy Audit finding recommen	dations						
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 o	n Site				

Complaints and Incidents summary template		Lic No:	W0028-03	Year	2017
Complaints					
		Additional info	rmation		
Have you received any environmental complaints in the current reporting year? If yes please complete summar	/				
details of complaints received on site in table 1 below	No				

Table	1 Complaints summary						
			Brief description of complaint (Free txt <20	Corrective action< 20			Further
Date	Category	Other type (please specify)	words)	words	Resolution status	Resolution date	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	tion				
Have any incidents	occurred on site in the current report	rting year? Please list all incid	ents for current reporting							
	year in Tab	le 2 below	_2	Yes		-				
*For information	on on how to report and what									
con	stitutes an incident	What is an incident								
	strates an incluent	That is an inorder it	-4 ₂							
Table 2 Incidents sur	nmary		1							
						Other	Activity in	1		
			Incident category*please			cause(please	progress at	1		Corrective action<20
Date of occurrence	Incident nature	Location of occurrence	refer to guidance	Receptor	Cause of incident	specify)	time of incident	Communication	Occurrence	words
07/02/2017	Abatement equip off line	Flare	1. Minor	Air	Plant or equipmen	it issues	Normal activities	EPA	New	Repair compressor
14/03/2017	Trigger level reached	perimeter gas wells	1. Minor	Air	High CO2		Normal activities	EPA	Recurring	
22/03/2017	Trigger level reached	Ground water	1. Minor	Ground	ground conditions		Normal activities	EPA	Recurring	
26/03/2017	Abatement equip off line	Flare	1. Minor	Air	low methane		Normal activities	EPA	Recurring	
07/06/2017	Trigger level reached	Surface water	1. Minor	Water	ground conditions		Normal activities	Inland Fisheries	Recurring	
07/06/2017	Trigger level reached	Ground water (wells)	1. Minor	Ground	ground conditions		Normal activities	EPA	Recurring	
07/06/2017	Trigger level reached	Ground water	1. Minor	Ground	ground conditions		Normal activities	EPA	Recurring	
23/08/2017	Trigger level reached	perimeter gas wells	1. Minor	Air	High CO2		Normal activities	EPA	Recurring	
29/09/2017	Trigger level reached	perimeter gas wells	1. Minor	Air	High CH4 & CO2		Normal activities	EPA	Recurring	
06/12/2017	Trigger level reached	Surface water	1. Minor	Water	ground conditions		Normal activities	EPA	Recurring	
06/12/2017	Trigger level reached	Ground water	1. Minor	Ground	ground conditions		Normal activities	EPA	Recurring	
Total number of			7							
incidents current										
year	11									
Total number of		1								
incidents previous										
year	10									
% reduction/]								
increase	10%increase									

	Preventative			
20	action <20		Resolution	Likelihood of
	words	Resolution status	date	reoccurence
r		Complete		Medium
_		Ongoing		High
		Ongoing		High
		Ongoing		Medium
		Ongoing		High

WASTE S	UMMARY	Lic No:	W0028-03	Year	2017
SECTION	A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE CO	MPLETED BY ALL IPPC AND WASTE FACILITIES	PRTR facility logon	dropdown list click to see options	

							1				
	SECTION B- WASTE	ACCEPTED ONTO SITE-TO BE CO	MPLETED BY ALL IPPC A	ND WASTE FACILITIE	S						
								Additional Information	on		
1	Were any wastes <u>accept</u> boundaries is to be capt	<u>ed onto</u> your site for recovery or disposa ured through PRTR reporting)	l or treatment prior to recovery	; (waste generated within your	No	Landfill closed					
	If yes please enter detail	s in table 1 below							i		
2	Did your site have any re	ejected consignments of waste in the cur	rent reporting year? If yes pleas	e give a brief explanation	in the additional informa	tion	No				
3	Was wast	e accepted onto your site that was gener	ated outside the Republic of Ire	land? If yes please state t	he quantity in tonnes in a	dditional information	No				
	Table 1 Details o	f waste accepted onto your	site for recovery, dis	oosal or treatmen	t (do not include	wastes generated at you	r site, as the	se will have be	en reported in yo	our PRTR workbook)	
	Licenced annual	EWC code	Source of waste accepted	Description of waste	Quantity of waste	Quantity of waste accepted in	Reduction/	Reason for	Packaging Content (%)-	Disposal/Recovery or	Г
	tonnage limit for your			accepted	accepted in current	previous reporting year (tonnes)	Increase over	reduction/ increase	only applies if the	treatment operation carried	Wa
	site (total			Please enter an	reporting year (tonnes)		previous year +/ -	from previous	waste has a packaging	out at your site and the	0

rubic a Detulis u	i waste accepted onto your	site for recovery) als	beset et et caethet.	. /	Hastes Benerates at Jes	,					
Licenced annual	EWC code	Source of waste accepted	Description of waste	Quantity of waste	Quantity of waste accepted in	Reduction/	Reason for	Packaging Content (%)-	Disposal/Recovery or	Quantity of	Comments -
tonnage limit for your			accepted	accepted in current	previous reporting year (tonnes)	Increase over	reduction/ increase	only applies if the	treatment operation carried	waste remaining	
site (total			Please enter an	reporting year (tonnes)		previous year +/ -	from previous	waste has a packaging	out at your site and the	on site at the	
tonnes/annum)			accurate and detailed			%	reporting year	component	description of this operation	end of reporting	
			description - which							year (tonnes)	
			applies to relevant EWC								
			code								
	European Waste Catalogue EWC codes		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

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?

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		Landfill closed
A	uthorised/licenced annual intake for disposal (tpa) O	uthorised/licenced annual intake for disposal (tpa) 0 0 0	uthorised/licenced annual intake for disposal (tpa) Actual intake for disposal in reporting year (tpa) Remaining licensed capacity at end of reporting year (m3) 0 0

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	Comments on liner type
										SELECT UNIT	SELECT UNIT	SELECT UNIT	
Whole landfill	1991	2010	No	Public	Non Hazardous		No			5.9ha	5.9ha		engineered landfill

Yes		
Yes		
Yes		
Yes		
N/A		

Table 4 Environme	ental monitoring-landfill only	Landfill Manual-Monitoring Sta	andards	1				
Vas meterological nonitoring in compliance vith Landfill Directive LD) standard in eporting 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
lo	Yes	Yes	Yes	No	Yes	No	No	Landfill closed

Yes No

Area uncapped*	Area with temporary cap		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	should be permanently	N 42 YM, 61 HE Y 41 PU 72	1.000 St. 11	
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments	
						Final capping of	
					An impremeable geocomposite	last phase	
	1				layer, 800mm subsoil and 200mm	completed in	
	0	0 5.9ha		5.9ha	topsoil	Nov 2012	

*please note this includes daily cover area

Table 6 Leachate-Landfill only

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

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

 Volume of leachate in reporting year(m3)
 Leachate (BOD) mass load (kg/annum)
 Leachate (COD) mass load (kg/annum)
 Leachate (COD) mass load (kg/annum)
 Leachate (CDI oride) mass load kg/annum
 Leachate (Chloride) mass load kg/annum
 Specify type of 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

Table / Lanathi Ga				
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
144.677		D	No	Gas flared using 1000m3 flare 8hrs/da

2017			



PRTR# W0028 | Facility Name Ballydonagh Lanofill | Filename Ballydonagh PRTR W0028_2017 xlsm | Return Year 2017 |

Guidance to completing the PRTR workbook

PRTR Returns Workbook

REFERENCE YEAR 2017

Version 1.1.19

11	FACIL	ITY.	IDEN'	TIFICA	TION

I. FACILITI IDENTIFICATION	
Parent Company Name Westm	neath County Council
Facility Name Ballydo	ionagh Landfill
PRTR Identification Number W0028	8
Licence Number W0028	8-03

Classes of Activity

No	. class_name		
	Refer to PRTR class activities below		

		_
Address 1	Ballydonagh	
Address 2	Dublin Road	
Address 3	Athlone	
Address 4		
	Westmeath	
Country	Ireland	_
Coordinates of Location	-6.22878 53.3496	
River Basin District	IEGBNISH	_
NACE Code	3821	
Main Economic Activity	Treatment and disposal of non-hazardous waste	
AER Returns Contact Name	Patrick Tighe	_
AER Returns Contact Email Address	ptighe@westmeathcoco.ie	_
AER Returns Contact Position	Senior Executive Technician	_
AER Returns Contact Telephone Number	044 9332128	
AER Returns Contact Mobile Phone Number	087 7958143	
AER Returns Contact Fax Number		_
Production Volume		0.0
Production Volume Units		
Number of Installations		
Number of Operating Hours in Year		0
Number of Employees		_1
User Feedback/Comments	The Civic Amenity site operated by a third party closed in August 2015.As a result there are no tonnages to report for glass, clothes, mixed municipal waste, C & D waste, wood, metals and biodegradable waste. There was a 53% reduction in methane being flared in 2017 compared to 2016. This was as a result of a reduction in flare operation from 12 hours per day to 7 hours per day. There was an 98% increase in leachate volumes removed from the site. This is due to suspected infiltration of Ground Water. A survey will be carried out to investigate this further.	
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 20	02)
Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per	
Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being	
used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE		Guidance on waste imported/accepted onto site
Do you import/accept waste onto your site for on-		
site treatment (either recovery or disposal		
activities) ?		
	lu analizable li vev are an IDDO at Oversu site	

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

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4.1 RELEASES TO AIR

Link to previous years emissions data

| PRTR# W0028 | Facility Name Ballydonagh Landfill | Filename Ballydonagh PRTR W0028_2017 xlsm | Return Year 2017 |

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

	RELEASES TO AIR		Please enter all quantities in this section in KGs						
	POLLUTANT	The State Line and	N	METHOD			QUANTITY		
			Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year		
1 Methane (CH4)		С	OTH	Calculated using gas sym		0.0 46031	9.0		
03	Carbon dioxide (CO2)	С	OTH	Calculated using gas sym		0.0 1561032.	0 0		
	* Select a row by double-clicking on the Pollutant Name (Column B) then click the	e delete button							

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR						Please enter all quantities in this section in KGs			
	POLLUTANT		M	ETHOD	QUANTITY				
			Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Yea		
		2 5 6 6 6 6 6		1		0.0	0.0		

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

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

	RELEASES TO AIR	Please enter all quantities in this section in KGs							
	POLLUTANT		N	AETHOD	QUANTITY				
				Method Used					
Pollutant No.	Name	M/C/E		Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year		
					(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 Land	dfill operators					
For the purposes of the National Inventory on Greenho flared or utilised on their facilities to accompany the fig emission to the environment under T(total) KG/yr for S	use Gases, landfill operators are requested to provide summary data on landfill gas (Methane) jures for total methane generated. Operators should only report their Net methane (CH4) ection A: Sector specific PRTR pollutants above. Please complete the table below:					
Landfill:	Ballydonagh Landfill				1	
Please enter summary data on the quantities of methane flared and / or utilised			Me	ethod Used		
	T (Total) kg/Year	M/C/E	Method Code	Designation or Description	Facility Total Capacity m3 per hour	
Total estimated methane generation (as per site model)	559764.0	с	отн	Gassim Lite 1.5	N/A	
Methane flared	99445.0	C	ОТН	calculated using av flow	1000.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	460319.0	С	отн	Total estimated minus meth	a N/A	

07/03/2018 12 21

ear	F (Fugitive) KG/Year
0.0	460319.0
0.0	1561032.0
'ear	F (Fugitive) KG/Year
0.0	0.0
'ear	F (Fugitive) KG/Year
0.0	0.0

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE PRTR# W0028 Facility Name Ballydonagh Landfill Filename Ballydonagh PRTR W0028_2017.xlsm Return Year : 2017 Please enter all quantities on this sheet in Tonnes										
			Quantity (Tonnes per Year)				Method Used		Haz Waste : Name and Licence/Permit No of Next Destination Facility <u>Non</u> <u>Haz Waste</u> : Name and Licence/Permit No of Recover/Disposer	<u>Haz Waste</u> : Address of Next Destination Facility <u>Non Haz Waste</u> : Address of Recover/Disposer
					Waste					
	European Waste	1 1			Treatment			Location of		
Transfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment		
Within the Country	19 07 03	No	4010.0	landfill leachate other than those mentioned in 19 07 02	D8	с	Volume Calculation	Offsite in Ireland	Athlone Waste Water Treatment Plant,D0007-01 Mullingar Waste Water	Golden Island ,Athlone ,Westmeath,Co Westmeath,Ireland Clopmore, Mullingar, County
Within the Country	19 07 03	No	0.0	in 19 07 02	D8	С	Volume Calculation	Offsite in Ireland	Treatment Plant, D0008-01	Westmeath, 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

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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)