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ntered in the additional information/comments boxes within the templates. Please size these boxes
se include an appendix to the AER template and merge it as part of the AER PDF document. The excel
ately so that all text is readable before it is converted to PDF document.

Facility Information Summary	
AER Reporting Year	2017
Licence Register Number	w0161-02
Name of site	Bottlehill landfill
Site Location	Burnfort , Mallow ,Co.Cork
NACE Code	
Class/Classes of Activity	
National Grid Reference (6E, 6 N)	
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 <u>listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.</u>	<p>The Environmental Protection Agency (EPA) issued Cork County Council with a waste Licence No W0161-01 for Bottlehill landfill on the 25th June 2004. In accordance with the requirement of Condition 11.61.1 of the waste licence. The site is located 10 KM from Mallow and 3.3km SW of Burnfort Village and 3.65 KM east of the N20. In 2012 Cork County Council requested a reduction in Environmental Monitoring as Bottlehill Landfill was inactive. The following reductions were granted by the EPA. Annual surface water and ground water monitoring to include annual parameters. Suspension of noise, dust, ecology and gas monitoring until 6 months prior to the landfill becoming operational. These changes are reflected in the 2017 AER.</p>

Declaration:

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

Signature		Date
Group/Facility manager	Marie Mortell	10/2/2017
(or nominated, suitably qualified and experienced deputy)		

AIR-summary template Lic No: 0 Year 2017

Answer all questions and complete all tables where relevant

Additional 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 do not need to complete the tables

No	
----	--

Periodic/Non-Continuous Monitoring

- 2 Are there any results in breach of licence requirements? If yes
Table A1 b
- 3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist?

Air monitoring suspended as landfill is not operational

Table A1: Licensed Mass Emissions/Ambient da

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.
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		

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

AIR-summary template	Lic No: 0	Year	2017
Continuous Monitoring			

4 Does your site carry out continuous air emissions monitoring? SELECT

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 SELECT

6 Do you have a proactive service agreement for each piece of continuous monitoring equipment? SELECT

7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below SELECT

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	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

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

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

Additional information	
Yes	
No	

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	downstream	Alkalinity	SELECT		NONE	All values < ELV	305	mg/l	yes	no upward trend
	downstream	SELECT	Boron		1.0 MG/L	All values < ELV	<0.02	mg/l	yes	no upward trend
	downstream	Chromium and compounds (as Cr)	SELECT		0.03 MG/L	All values < ELV	<3.0	ug/l	yes	no upward trend
	downstream	Copper and compounds (as Cu)	SELECT		0.03 mg/l	All values < ELV	<0.003	ug/l	yes	no upward trend
	downstream	Cadmium and compounds (as Cd)	SELECT		0.005 MG/L	All values < ELV	<0.1	ug/l	yes	no upward trend
	downstream	SELECT	Iron		0.2 mg/l	All values < ELV	200	ug/l	yes	no upward trend
	downstream	Lead and compounds (as Pb)	SELECT			All values < ELV	<0.3	ug/l	yes	no upward trend
	downstream	SELECT	Magnesium		50 mg/l	All values < ELV	1.5	mg/l	yes	no upward trend
	downstream	SELECT	Manganese (as Mn)		0.05 mg/l	All values < ELV	38	ug/l	yes	no upward trend
	downstream	Mercury and compounds (as Hg)	SELECT		0.001 mg/l	All values < ELV	<0.02	ug/l	yes	no upward trend
	downstream	Nickel and compounds (as Ni)	SELECT		0.05 mg/l	All values < ELV	<0.5	ug/l	yes	no upward trend
	downstream	SELECT	Potassium		5 mg/l	All values < ELV	0.3	ug/l	yes	no upward trend
	downstream	SELECT	Sulphate		200 mg/l	All values < ELV	<1.0	mg/l	yes	no upward trend
	downstream	SELECT	Total Oxidised Nitrogen (TON)		no abnormal change	All values < ELV	<0.15	mg/l	yes	no upward trend
	downstream	SELECT	Ortho-phosphate (as PO4)			All values < ELV	<0.005	mg/l	yes	no upward trend
	downstream	Zinc and compounds (as Zn)	SELECT		0.1 mg/l	All values < ELV	<1.0	mg/l	yes	no upward trend
	downstream	Total phosphorus	SELECT			All values < ELV	0.02	ug/l	yes	no upward trend
SW1A	upstream	Alkalinity	SELECT			All values < ELV	109	mg/l	yes	no upward trend
	upstream	SELECT	Boron			All values < ELV	<0.02	mg/l	yes	no upward trend
	upstream	Chromium and compounds (as Cr)	SELECT			All values < ELV	<3.0	ug/l	yes	no upward trend
	upstream	Copper and compounds (as Cu)	SELECT			All values < ELV	<0.003	ug/l	yes	no upward trend
	upstream	Cadmium and compounds (as Cd)	SELECT			All values < ELV	<0.1	ug/l	yes	no upward trend
	upstream	SELECT	Iron			All values < ELV	150	ug/l	yes	no upward trend
	upstream	Lead and compounds (as Pb)	SELECT			All values < ELV	<0.3	ug/l	yes	no upward trend
	upstream	SELECT	Magnesium			All values < ELV	1.5	mg/l	yes	no upward trend
	upstream	SELECT	Manganese (as Mn)			All values < ELV	10	ug/l	yes	no upward trend

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)				Lic No:	0	Year	2017		
	upstream	cury and compounds (as	SELECT		All values < ELV	<0.02	ug/l	yes	no upward trend
	upstream	ckel and compounds (as	SELECT		All values < ELV	<0.5	ug/l	yes	no upward trend
	upstream	SELECT	Potassium		All values < ELV	0.3	ug/l	yes	no upward trend
	upstream	SELECT	Sulphate		All values < ELV	<1.0	mg/l	yes	no upward trend
	upstream	SELECT	Total Oxidised Nitrogen (TON)		All values < ELV	<0.15	mg/l	yes	no upward trend
	upstream	SELECT	Ortho-phosphate (as PO4)		All values < ELV	<0.005	mg/l	yes	no upward trend
	upstream	inc and compounds (as Z	SELECT		All values < ELV	<1.0	mg/l	yes	no upward trend
	upstream	Total phosphorus	SELECT		All values < ELV	0.02	ug/l	yes	no upward trend
SW2	onsite	Alkalinity	SELECT		All values < ELV	DRY	mg/l	yes	no upward trend
	onsite	SELECT	Boron		All values < ELV	DRY	mg/l	yes	no upward trend
	onsite	mium and compounds (a	SELECT		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	pper and compounds (as	SELECT		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	mium and compounds (as	SELECT		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	SELECT	Iron		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	cad and compounds (as P	SELECT		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	SELECT	Magnesium		All values < ELV	DRY	mg/l	yes	no upward trend
	onsite	SELECT	Manganese (as Mn)		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	cury and compounds (as	SELECT		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	ckel and compounds (as	SELECT		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	SELECT	Potassium		All values < ELV	DRY	ug/l	yes	no upward trend
	onsite	SELECT	Sulphate		All values < ELV	DRY	mg/l	yes	no upward trend
	onsite	SELECT	Total Oxidised Nitrogen (TON)		All values < ELV	DRY	mg/l	yes	no upward trend
	onsite	SELECT	Ortho-phosphate (as PO4)		All values < ELV	DRY	mg/l	yes	no upward trend
	onsite	inc and compounds (as Z	SELECT		All values < ELV	DRY	mg/l	yes	no upward trend
	onsite	Total phosphorus	SELECT		All values < ELV	DRY	ug/l	yes	no upward trend
sw3	downstream	Alkalinity	SELECT		All values < ELV	272	mg/l	yes	no upward trend
	downstream	SELECT	Boron		All values < ELV	<0.02	mg/l	yes	no upward trend
	downstream	mium and compounds (a	SELECT		All values < ELV	<3.0	ug/l	yes	no upward trend
	downstream	pper and compounds (as	SELECT		All values < ELV	<0.003	ug/l	yes	no upward trend
	downstream	mium and compounds (as	SELECT		All values < ELV	<0.1	ug/l	yes	no upward trend
	downstream	SELECT	Iron		All values < ELV	630	ug/l	yes	no upward trend
	downstream	cad and compounds (as P	SELECT		All values < ELV	<0.3	ug/l	yes	no upward trend
	downstream	SELECT	Magnesium		All values < ELV	2.2	mg/l	yes	no upward trend
	downstream	SELECT	Manganese (as Mn)		All values < ELV	110	ug/l	yes	no upward trend

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)				Lic No:	0	Year	2017		
	downstream	cury and compounds (as	SELECT		All values < ELV	<0.02	ug/l	yes	no upward trend
	downstream	ckel and compounds (as	SELECT		All values < ELV	0.7	ug/l	yes	no upward trend
	downstream	SELECT	Potassium		All values < ELV	0.4	ug/l	yes	no upward trend
	downstream	SELECT	Sulphate		All values < ELV	<1.0	mg/l	yes	no upward trend
	downstream	SELECT	Total Oxidised Nitrogen (TON)		All values < ELV	<0.15	mg/l	yes	no upward trend
	downstream	SELECT	Ortho-phosphate (as PO4)		All values < ELV	0.007	mg/l	yes	no upward trend
	downstream	inc and compounds (as Z	SELECT		All values < ELV	1.1	mg/l	yes	no upward trend
	downstream	Total phosphorus	SELECT		All values < ELV	0.03	ug/l	yes	no upward trend
SW4	downstream	Alkalinity	SELECT		All values < ELV	79	mg/l	yes	no upward trend
	downstream	SELECT	Boron		All values < ELV	<0.02	mg/l	yes	no upward trend
	downstream	mium and compounds (a	SELECT		All values < ELV	<3.0	ug/l	yes	no upward trend
	downstream	pper and compounds (as	SELECT		All values < ELV	<0.003	ug/l	yes	no upward trend
	downstream	mium and compounds (as	SELECT		All values < ELV	<0.1	ug/l	yes	no upward trend
	downstream	SELECT	Iron		All values < ELV	360	ug/l	yes	no upward trend
	downstream	cad and compounds (as P	SELECT		All values < ELV	<0.3	mg/l	yes	no upward trend
	downstream	SELECT	Magnesium		All values < ELV	3.1	ug/l	yes	no upward trend
	downstream	SELECT	Manganese (as Mn)		All values < ELV	63	ug/l	yes	no upward trend
	downstream	cury and compounds (as	SELECT		All values < ELV	<0.02	ug/l	yes	no upward trend
	downstream	ckel and compounds (as	SELECT		All values < ELV	0.5	ug/l	yes	no upward trend
	downstream	SELECT	Potassium		All values < ELV	0.9	mg/l	yes	no upward trend
	downstream	SELECT	Sulphate		All values < ELV	5.1	mg/l	yes	no upward trend
	downstream	SELECT	Total Oxidised Nitrogen (TON)		All values < ELV	1.1	mg/l	yes	no upward trend
	downstream	SELECT	Ortho-phosphate (as PO4)		All values < ELV	0.008	mg/l	yes	no upward trend
	downstream	inc and compounds (as Z	SELECT		All values < ELV	1.5	ug/l	yes	no upward trend
	downstream	Total phosphorus	SELECT		All values < ELV	0.03	mg/l	yes	no upward trend
sw5	downstream	Alkalinity	SELECT		All values < ELV	39	mg/l	yes	no upward trend
	downstream	SELECT	Boron		All values < ELV	<0.02	mg/l	yes	no upward trend
	downstream	mium and compounds (a	SELECT		All values < ELV	<3.0	ug/l	yes	no upward trend
	downstream	pper and compounds (as	SELECT		All values < ELV	<0.003	ug/l	yes	no upward trend
	downstream	mium and compounds (as	SELECT		All values < ELV	<0.1	ug/l	yes	no upward trend
	downstream	SELECT	Iron		All values < ELV	390	ug/l	yes	no upward trend
	downstream	cad and compounds (as P	SELECT		All values < ELV	<0.3	mg/l	yes	no upward trend
	downstream	SELECT	Magnesium		All values < ELV	3.3	ug/l	yes	no upward trend
	downstream	SELECT	Manganese (as Mn)		All values < ELV	48	ug/l	yes	no upward trend

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)				Lic No:	0	Year	2017		
	downstream	cury and compounds (as	SELECT		All values < ELV	<0.02	ug/l	yes	no upward trend
	downstream	ckel and compounds (as	SELECT		All values < ELV	1.3	ug/l	yes	no upward trend
	downstream	SELECT	Potassium		All values < ELV	0.9	mg/l	yes	no upward trend
	downstream	SELECT	Sulphate		All values < ELV	4.3	mg/l	yes	no upward trend
	downstream	SELECT	Total Oxidised Nitrogen (TON)		All values < ELV	1.9	mg/l	yes	no upward trend
	downstream	SELECT	Ortho-phosphate (as PO4)		All values < ELV	0.007	mg/l	yes	no upward trend
	downstream	inc and compounds (as Z	SELECT		All values < ELV	8.7	ug/l	yes	no upward trend
	downstream	Total phosphorus	SELECT		All values < ELV	0.03	mg/l	yes	no upward trend
SW6	downstream	Alkalinity	SELECT		All values < ELV	30	mg/l	yes	no upward trend
	downstream	SELECT	Boron		All values < ELV	<0.02	mg/l	yes	no upward trend
	downstream	mium and compounds (a	SELECT		All values < ELV	<3.0	ug/l	yes	no upward trend
	downstream	pper and compounds (as	SELECT		All values < ELV	<0.003	ug/l	yes	no upward trend
	downstream	mium and compounds (as	SELECT		All values < ELV	<0.1	ug/l	yes	no upward trend
	downstream	SELECT	Iron		All values < ELV	490	ug/l	yes	no upward trend
	downstream	cad and compounds (as P	SELECT		All values < ELV	<0.3	mg/l	yes	no upward trend
	downstream	SELECT	Magnesium		All values < ELV	2.2	ug/l	yes	no upward trend
	downstream	SELECT	Manganese (as Mn)		All values < ELV	62	ug/l	yes	no upward trend
	downstream	cury and compounds (as	SELECT		All values < ELV	<0.02	ug/l	yes	no upward trend
	downstream	ckel and compounds (as	SELECT		All values < ELV	0.6	ug/l	yes	no upward trend
	downstream	SELECT	Potassium		All values < ELV	0.9	mg/l	yes	no upward trend
	downstream	SELECT	Sulphate		All values < ELV	42	mg/l	yes	no upward trend
	downstream	SELECT	Total Oxidised Nitrogen (TON)		All values < ELV	1.2	mg/l	yes	no upward trend
	downstream	SELECT	Ortho-phosphate (as PO4)		All values < ELV	0.017	mg/l	yes	no upward trend
	downstream	inc and compounds (as Z	SELECT		All values < ELV	57.1	ug/l	yes	no upward trend
	downstream	Total phosphorus	SELECT		All values < ELV	0.04	mg/l	yes	no upward trend
SW7	downstream	Alkalinity	SELECT		All values < ELV	312	mg/l	yes	no upward trend
	downstream	SELECT	Boron		All values < ELV	<0.02	mg/l	yes	no upward trend
	downstream	mium and compounds (a	SELECT		All values < ELV	<3.0	ug/l	yes	no upward trend
	downstream	pper and compounds (as	SELECT		All values < ELV	<0.003	ug/l	yes	no upward trend
	downstream	mium and compounds (as	SELECT		All values < ELV	<0.1	ug/l	yes	no upward trend
	downstream	SELECT	Iron		All values < ELV	260	ug/l	yes	no upward trend
	downstream	cad and compounds (as P	SELECT		All values < ELV	<0.3	mg/l	yes	no upward trend
	downstream	SELECT	Magnesium		All values < ELV	3.1	ug/l	yes	no upward trend
	downstream	SELECT	Manganese (as Mn)		All values < ELV	15	ug/l	yes	no upward trend

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)				Lic No:	0	Year	2017	
downstream	cury and compounds (as	SELECT		All values < ELV	<0.02	ug/l	yes	no upward trend
downstream	ckel and compounds (as	SELECT		All values < ELV	0.9	ug/l	yes	no upward trend
downstream	SELECT	Potassium		All values < ELV	0.8	mg/l	yes	no upward trend
downstream	SELECT	Sulphate		All values < ELV	3.5	mg/l	yes	no upward trend
downstream	SELECT	Total Oxidised Nitrogen (TON)		All values < ELV	0.73	mg/l	yes	no upward trend
downstream	SELECT	Ortho-phosphate (as PO4)		All values < ELV	<0.007	mg/l	yes	no upward trend
downstream	inc and compounds (as Z	SELECT		All values < ELV	4.2	ug/l	yes	no upward trend
downstream	Total phosphorus	SELECT		All values < ELV	0.02	mg/l	yes	no upward trend

*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 brief details in the comment section of Table W3 below

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

4 box

SELECT	Additional information
SELECT	

[External/Internal Lab Quality checklist](#) [Assessment of results checklist](#)

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

Emission reference no:	Emission released to	Parameter/ Substance ^{Note 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?

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

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

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

Groundwater/Soil monitoring template	Lic No:	0	Year	2017
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			Comments
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	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 interpretaion as an additional section in this AER
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.	no	
5	Is the contamination related to operations at the facility (either current and/or historic)	no	
6	Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site	SELECT	
7	Please specify the proposed time frame for the remediation strategy	SELECT	
8	Is there a licence condition to carry out/update ELRA for the site?	SELECT	
9	Has any type of risk assesment 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?	no	

Table 1: Upgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*	SW EQS	Upward trend in pollutant concentration over last 5 years of monitoring data
11/5/2017	MW2 S	Alkalinity		Annual	206		SELECT		SW EQS	no
		Boron	ICP-MS		<0.02		SELECT	2.0 MG/L	SW EQS	no
		Cadnium	ICP-MS		<0.1		SELECT	0.005 mg/l	SW EQS	no
		Chromium	ICP-MS		14.3		SELECT	0.03 mg/l	SW EQS	no
		calcium	ICP-OES		9.8		SELECT	-	SW EQS	no
		copper	ICP-MS		<0.003		SELECT	0.03 mg/l	SW EQS	no
		cyanide	APHA 4500 CN		<10		SELECT	0.01 mg/l	SW EQS	no
		Iron	ICP-MS		50		SELECT	1.0 mg/l	SW EQS	no
		Lead	ICP-MS		<0.3		SELECT	0.01 mg/l	SW EQS	no
		Mercury	ICP-MS		<0.02		SELECT	0.001 mg/l	SW EQS	no
		Manganese	ICP-MS		37		SELECT	0.3 mg/l	SW EQS	no
		magnesium	ICP-OES		1		SELECT	-	SW EQS	no
		Nickle	ICP-MS		0.7		SELECT	0.05 mg/l	SW EQS	no
		potassium	ICP-OES		1.1		SELECT	5 mg/l	SW EQS	no
		sodium	Aquakem 250 auto analyser		7.1		SELECT	-	SW EQS	no
		Sulphates	Aquakem 250 auto analyser		4.5		SELECT	200 mg/l	SW EQS	no

Groundwater/Soil monitoring template				Lic No:	0	Year	2017		
		TDS	APHA 2110B	57	SELECT	-	SW EQS	no	
		TON	Aquakem 250 auto analyser	<0.15	SELECT	-	SW EQS	no	
		Total.Coilforms	19	0	SELECT	-	SW EQS	no	
		Faecal.Coilforms	smp 019	0	SELECT	-	SW EQS	no	
		SVOC	GC-MS	NR	SELECT	<10 ug/l	SW EQS	no	
		VOC	GC-MS	NR	SELECT	<10 ug/l	SW EQS	no	
		Selenium		NR	SELECT		SW EQS	no	
		Pesticides	GC-MS	NR	SELECT	0.375 ug/l	SW EQS	no	
11/5/2017	MW2 D	Alkalinity		annual	98	SELECT		SW EQS	no
		Boron			<0.02	SELECT	2.0 MG/L	SW EQS	no
		Cadnium			<0.1	SELECT	0.005 mg/l	SW EQS	no
		Chromium				SELECT	0.03 mg/l	SW EQS	no
		calcium			15	SELECT	-	SW EQS	no
		copper			<0.003	SELECT	0.03 mg/l	SW EQS	no
		cyanide			<10	SELECT	0.01 mg/l	SW EQS	no
		Iron			<20	SELECT	1.0 mg/l	SW EQS	no
		Lead			<0.3	SELECT	0.01 mg/l	SW EQS	no
		Mercury			<0.02	SELECT	0.001 mg/l	SW EQS	no
		Manganese			<1.0	SELECT	0.3 mg/l	SW EQS	no
		magnesium			2.1	SELECT	-	SW EQS	no
		Nickle			<0.5	SELECT	0.05 mg/l	SW EQS	no
		potassium			0.7	SELECT	5 mg/l	SW EQS	no
		sodium			6.8	SELECT	-	SW EQS	no
		Sulphates			3.1	SELECT	200 mg/l	SW EQS	no
		TDS			76	SELECT	-	SW EQS	no
		TON			<0.15	SELECT	-	SW EQS	no
		Total.Coilforms			0	SELECT	-	SW EQS	no
		Faecal.Coilforms			0	SELECT	-	SW EQS	no
		SVOC			NR	SELECT	<10 ug/l	SW EQS	no
		VOC			NR	SELECT	<10 ug/l	SW EQS	no
		Selenium			NR	SELECT		SW EQS	no
		Pesticides			NR	SELECT	0.375 ug/l	SW EQS	no
11/5/2017	MW 4 S	Alkalinity		annual	28	SELECT		SW EQS	no
		Boron			<0.02	SELECT	2.0 MG/L	SW EQS	no
		Cadnium			0.1	SELECT	0.005 mg/l	SW EQS	no
		Chromium			6.3	SELECT	0.03 mg/l	SW EQS	no
		calcium			1.5	SELECT	-	SW EQS	no
		copper			<0.003	SELECT	0.03 mg/l	SW EQS	no
		cyanide			<10	SELECT	0.01 mg/l	SW EQS	no
		Iron			<20	SELECT	1.0 mg/l	SW EQS	no
		Lead			<0.3	SELECT	0.01 mg/l	SW EQS	no
		Mercury			<0.02	SELECT	0.001 mg/l	SW EQS	no
		Manganese			9.8	SELECT	0.3 mg/l	SW EQS	no
		magnesium			1.5	SELECT	-	SW EQS	no
		Nickle			6.7	SELECT	0.05 mg/l	SW EQS	no
		potassium			0.9	SELECT	5 mg/l	SW EQS	no
		sodium			6.7	SELECT	-	SW EQS	no
		Sulphates			4	SELECT	200 mg/l	SW EQS	no
		TDS			34	SELECT	-	SW EQS	no
		TON			0.21	SELECT		SW EQS	no

Groundwater/Soil monitoring template				Lic No:	0	Year	2017	
		Total.Coilforms		0	SELECT	-	SW EQS	no
		Faecal.Coilforms		0	SELECT	-	SW EQS	no
		SVOC		<1.0	SELECT	<10 ug/l	SW EQS	no
		VOC		<1.0	SELECT	<10 ug/l	SW EQS	no
		Selenium		<0.2	SELECT		SW EQS	no
		Pesticides		NR	SELECT	0.375 ug/l	SW EQS	no
11/5/2017	MW4 D	Alkalinity	annual	20	SELECT		SW EQS	no
		Boron		<0.02	SELECT	2.0 MG/L	SW EQS	no
		Cadnium		<0.1	SELECT	0.005 mg/l	SW EQS	no
		Chromium		<3.0	SELECT	0.03 mg/l	SW EQS	no
		calcium		9.4	SELECT	-	SW EQS	no
		copper		<0.003	SELECT	0.03 mg/l	SW EQS	no
		cyanide		<10	SELECT	0.01 mg/l	SW EQS	no
		Iron		<20	SELECT	1.0 mg/l	SW EQS	no
		Lead		<0.3	SELECT	0.01 mg/l	SW EQS	no
		Mercury		<0.02	SELECT	0.001 mg/l	SW EQS	no
		Manganese		1.5	SELECT	0.3 mg/l	SW EQS	no
		magnesium		1.6	SELECT	-	SW EQS	no
		Nickle		<0.5	SELECT	0.05 mg/l	SW EQS	no
		potassium		0.6	SELECT	5 mg/l	SW EQS	no
		sodium		6.8	SELECT	-	SW EQS	no
		Sulphates		3.1	SELECT	200 mg/l	SW EQS	no
		TDS		70	SELECT	-	SW EQS	no
		TON		0.25	SELECT		SW EQS	no
		Total.Coilforms		0	SELECT	-	SW EQS	no
		Faecal.Coilforms		0	SELECT	-	SW EQS	no
		SVOC		<1.0	SELECT	<10 ug/l	SW EQS	no
		VOC		<1.0	SELECT	<10 ug/l	SW EQS	no
		Selenium		0.7	SELECT		SW EQS	no
		Pesticides		NR	SELECT	0.375 ug/l	SW EQS	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
11/5/2017	MW11 S	Alkalinity		annual	53		mg/l		SW EQS	no
		Boron			<0.02		mg/l	2.0 MG/L	SW EQS	no
		Cadnium			<0.1		ug/l	0.005 mg/l	SW EQS	no
		Chromium			<3.0		ug/l	0.03 mg/l	SW EQS	no
		calcium			9.3		mg/l	-	SW EQS	no
		copper			<0.003		ug/l	0.03 mg/l	SW EQS	no
		cyanide			<10		ug/l	0.01 mg/l	SW EQS	no
		Iron			100		ug/l	1.0 mg/l	SW EQS	no
		Lead			<0.3		ug/l	0.01 mg/l	SW EQS	no
		Mercury			<0.02		ug/l	0.001 mg/l	SW EQS	no

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		Manganese		250		mg/l	0.3 mg/l	SW EQS	no
		magnesium		4.8		mg/l	-	SW EQS	no
		Nickle		3.5		ug/l	0.05 mg/l	SW EQS	no
		potassium		1.2		mg/l	5 mg/l	SW EQS	no
		sodium		8.7		mg/l	-	SW EQS	no
		Sulphates		4.3		mg/l	200 mg/l	SW EQS	no
		TDS		85		mg/l	-	SW EQS	no
		TON		<0.15		mg/l		SW EQS	no
		Total.Coilforms		0		SELECT	-	SW EQS	no
		Faecal.Coilforms		0		SELECT	-	SW EQS	no
		SVOC		NR		ug/l	<10 ug/l	SW EQS	no
		VOC		NR		ug/l	<10 ug/l	SW EQS	no
		Selenium		NR		ug/l		SW EQS	no
		Pesticides		NR		ug/l	0.375 ug/l	SW EQS	no
11/5/2017	MW11 D	Alkalinity	annual	22		mg/l		SW EQS	no
		Boron		<0.02		mg/l	2.0 MG/L	SW EQS	no
		Cadnium		<0.1		ug/l	0.005 mg/l	SW EQS	no
		Chromium		<3.0		ug/l	0.03 mg/l	SW EQS	no
		calcium		4.1		mg/l	-	SW EQS	no
		copper		<0.003		ug/l	0.03 mg/l	SW EQS	no
		cyanide		<10		ug/l	0.01 mg/l	SW EQS	no
		Iron		1100		ug/l	1.0 mg/l	SW EQS	no
		Lead		<0.3		ug/l	0.01 mg/l	SW EQS	no
		Mercury		<0.02		ug/l	0.001 mg/l	SW EQS	no
		Manganese		64		mg/l	0.3 mg/l	SW EQS	no
		magnesium		2.2		mg/l	-	SW EQS	no
		Nickle		2.3		ug/l	0.05 mg/l	SW EQS	no
		potassium		0.9		mg/l	5 mg/l	SW EQS	no
		sodium		9.5		mg/l	-	SW EQS	no
		Sulphates		3.6		mg/l	200 mg/l	SW EQS	no
		TDS		68		mg/l	-	SW EQS	no
		TON		<0.15		mg/l		SW EQS	no
		Total.Coilforms		328		SELECT	-	SW EQS	no
		Faecal.Coilforms		0		SELECT	-	SW EQS	no
		SVOC		NR		ug/l	<10 ug/l	SW EQS	no
		VOC		NR		ug/l	<10 ug/l	SW EQS	no
		Selenium		NR		ug/l		SW EQS	no
		Pesticides		NR		ug/l	0.375 ug/l	SW EQS	no
11/5/2017	MW12 s	Alkalinity	Annual	dry		mg/l		SW EQS	no
		Boron		dry		mg/l	2.0 MG/L	SW EQS	no
		Cadnium		dry		ug/l	0.005 mg/l	SW EQS	no
		Chromium		dry		ug/l	0.03 mg/l	SW EQS	no
		calcium		dry		mg/l	-	SW EQS	no
		copper		dry		ug/l	0.03 mg/l	SW EQS	no
		cyanide		dry		ug/l	0.01 mg/l	SW EQS	no
		Iron		dry		ug/l	1.0 mg/l	SW EQS	no
		Lead		dry		ug/l	0.01 mg/l	SW EQS	no
		Mercury		dry		ug/l	0.001 mg/l	SW EQS	no
		Manganese		dry		mg/l	0.3 mg/l	SW EQS	no
		magnesium		dry		mg/l	-	SW EQS	no
		Nickle		dry		ug/l	0.05 mg/l	SW EQS	no

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		potassium			dry		mg/l	5 mg/l	SW EQS	no
		sodium			dry		mg/l	-	SW EQS	no
		Sulphates			dry		mg/l	200 mg/l	SW EQS	no
		TDS			dry		mg/l	-	SW EQS	no
		TON			dry		mg/l	-	SW EQS	no
		Total.Coilforms			dry		SELECT	-	SW EQS	no
		Faecal.Coilforms			dry		SELECT	-	SW EQS	no
		SVOC			dry		ug/l	<10 ug/l	SW EQS	no
		VOC			dry		ug/l	<10 ug/l	SW EQS	no
		Selenium			dry		ug/l	-	SW EQS	no
		Pesticides			dry		ug/l	0.375 ug/l	SW EQS	no
11/5/2017	MW12 D	Alkalinity		annual	11		mg/l	-	SW EQS	no
		Boron			<0.02		mg/l	2.0 MG/L	SW EQS	no
		Cadnium			<0.1		ug/l	0.005 mg/l	SW EQS	no
		Chromium			<3.0		ug/l	0.03 mg/l	SW EQS	no
		calcium			1.3		mg/l	-	SW EQS	no
		copper			<0.003		ug/l	0.03 mg/l	SW EQS	no
		cyanide			<10		ug/l	0.01 mg/l	SW EQS	no
		Iron			<20		ug/l	1.0 mg/l	SW EQS	no
		Lead			<0.3		ug/l	0.01 mg/l	SW EQS	no
		Mercury			1		ug/l	0.001 mg/l	SW EQS	no
		Manganese			36		mg/l	0.3 mg/l	SW EQS	no
		magnesium			1.4		mg/l	-	SW EQS	no
		Nickle			2.9		ug/l	0.05 mg/l	SW EQS	no
		potassium			1		mg/l	5 mg/l	SW EQS	no
		sodium			9.3		mg/l	-	SW EQS	no
		Sulphates			2		mg/l	200 mg/l	SW EQS	no
		TDS			51		mg/l	-	SW EQS	no
		TON			0.21		mg/l	-	SW EQS	no
		Total.Coilforms			0		SELECT	-	SW EQS	no
		Faecal.Coilforms			0		SELECT	-	SW EQS	no
		SVOC			NR		ug/l	<10 ug/l	SW EQS	no
		VOC			NR		ug/l	<10 ug/l	SW EQS	no
		Selenium			NR		ug/l	-	SW EQS	no
		Pesticides			NR		ug/l	0.375 ug/l	SW EQS	no
11/5/2017	MW13 s	dry	dry	dry	dry	dry	dry	dry	dry	dry
11/5/2017	MW13 D	dry	dry	dry	dry	dry	dry	dry	dry	dry
11/5/2017	MW14 s	dry	dry	dry	dry	dry	dry	dry	dry	dry
11/5/2017	MW14 D	Alkalinity		annual	11		mg/l	-	SW EQS	no
		Boron			<0.02		mg/l	2.0 MG/L	SW EQS	no
		Cadnium			<0.1		ug/l	0.005 mg/l	SW EQS	no
		Chromium			<3.0		ug/l	0.03 mg/l	SW EQS	no
		calcium			<1.0		mg/l	-	SW EQS	no
		copper			<0.003		ug/l	0.03 mg/l	SW EQS	no
		cyanide			<10		ug/l	0.01 mg/l	SW EQS	no
		Iron			<20		ug/l	1.0 mg/l	SW EQS	no
		Lead			<0.3		ug/l	0.01 mg/l	SW EQS	no
		Mercury			<0.02		ug/l	0.001 mg/l	SW EQS	no
		Manganese			19		mg/l	0.3 mg/l	SW EQS	no
		magnesium			1		mg/l	-	SW EQS	no
		Nickle			0.6		ug/l	0.05 mg/l	SW EQS	no

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		potassium		0.4		mg/l	5 mg/l	SW EQS	no
		sodium		7.6		mg/l	-	SW EQS	no
		Sulphates		3.4		mg/l	200 mg/l	SW EQS	no
		TDS		44		mg/l	-	SW EQS	no
		TON		<0.15		mg/l	-	SW EQS	no
		Total.Coilforms		2		SELECT	-	SW EQS	no
		Faecal.Coilforms		0		SELECT	-	SW EQS	no
		SVOC		NR		ug/l	<10 ug/l	SW EQS	no
		VOC		NR		ug/l	<10 ug/l	SW EQS	no
		Selenium		NR		ug/l	-	SW EQS	no
		Pesticides		NR		ug/l	0.375 ug/l	SW EQS	no
11/5/2017	MW15 S	Alkalinity	annual	29		mg/l	-	SW EQS	no
		Boron		<0.02		mg/l	2.0 MG/L	SW EQS	no
		Cadnium		<0.1		ug/l	0.005 mg/l	SW EQS	no
		Chromium		<3.0		ug/l	0.03 mg/l	SW EQS	no
		calcium		2.6		mg/l	-	SW EQS	no
		copper		<0.003		ug/l	0.03 mg/l	SW EQS	no
		cyanide		<10		ug/l	0.01 mg/l	SW EQS	no
		Iron		300		ug/l	1.0 mg/l	SW EQS	no
		Lead		3.1		ug/l	0.01 mg/l	SW EQS	no
		Mercury		<0.02		ug/l	0.001 mg/l	SW EQS	no
		Manganese		270		mg/l	0.3 mg/l	SW EQS	no
		magnesium		3.1		mg/l	-	SW EQS	no
		Nickle		3.9		ug/l	0.05 mg/l	SW EQS	no
		potassium		0.7		mg/l	5 mg/l	SW EQS	no
		sodium		6.8		mg/l	-	SW EQS	no
		Sulphates		2.3		mg/l	200 mg/l	SW EQS	no
		TDS		56		mg/l	-	SW EQS	no
		TON		<0.15		mg/l	-	SW EQS	no
		Total.Coilforms		2		SELECT	-	SW EQS	no
		Faecal.Coilforms		0		SELECT	-	SW EQS	no
		SVOC		<1.0		ug/l	<10 ug/l	SW EQS	no
		VOC		<1.0		ug/l	<10 ug/l	SW EQS	no
		Selenium		0.6		ug/l	-	SW EQS	no
		Pesticides				ug/l	0.375 ug/l	SW EQS	no
11/5/2017	MW15 D	Alkalinity	annual	29		mg/l	-	SW EQS	no
		Boron		<0.02		mg/l	2.0 MG/L	SW EQS	no
		Cadnium		<0.1		ug/l	0.005 mg/l	SW EQS	no
		Chromium		<3.0		ug/l	0.03 mg/l	SW EQS	no
		calcium		3		mg/l	-	SW EQS	no
		copper		<0.003		ug/l	0.03 mg/l	SW EQS	no
		cyanide		<10		ug/l	0.01 mg/l	SW EQS	no
		Iron		630		ug/l	1.0 mg/l	SW EQS	no
		Lead		<0.3		ug/l	0.01 mg/l	SW EQS	no
		Mercury		<0.02		ug/l	0.001 mg/l	SW EQS	no
		Manganese		32		mg/l	0.3 mg/l	SW EQS	no
		magnesium		3		mg/l	-	SW EQS	no
		Nickle		8.9		ug/l	0.05 mg/l	SW EQS	no
		potassium		1.3		mg/l	5 mg/l	SW EQS	no
		sodium		7.1		mg/l	-	SW EQS	no
		Sulphates		3.2		mg/l	200 mg/l	SW EQS	no

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		TDS		71	mg/l	-	SW EQS	no
		TON		<0.15	mg/l		SW EQS	no
		Total.Coilforms		0	SELECT	-	SW EQS	no
		Faecal.Coilforms		0	SELECT	-	SW EQS	no
		SVOC		<1.0	ug/l	<10 ug/l	SW EQS	no
		VOC		<1.0	ug/l	<10 ug/l	SW EQS	no
		Selenium		0.6	ug/l		SW EQS	no
		Pesticides			ug/l	0.375 ug/l	SW EQS	no
11/5/2017	MW16 S	Alkalinity		67	mg/l		SW EQS	no
		Boron		<0.02	mg/l	2.0 MG/L	SW EQS	no
		Cadnium		<0.1	ug/l	0.005 mg/l	SW EQS	no
		Chromium		<3.0	ug/l	0.03 mg/l	SW EQS	no
		calcium		2.5	mg/l	-	SW EQS	no
		copper		<0.003	ug/l	0.03 mg/l	SW EQS	no
		cyanide		<10	ug/l	0.01 mg/l	SW EQS	no
		Iron		5100	ug/l	1.0 mg/l	SW EQS	no
		Lead		<0.3	ug/l	0.01 mg/l	SW EQS	no
		Mercury		<0.02	ug/l	0.001 mg/l	SW EQS	no
		Manganese		140	mg/l	0.3 mg/l	SW EQS	no
		magnesium		1.6	mg/l	-	SW EQS	no
		Nickle		1.4	ug/l	0.05 mg/l	SW EQS	no
		potassium		0.6	mg/l	5 mg/l	SW EQS	no
		sodium		5.1	mg/l	-	SW EQS	no
		Sulphates		2.4	mg/l	200 mg/l	SW EQS	no
		TDS		29	mg/l	-	SW EQS	no
		TON		0.17	mg/l		SW EQS	no
		Total.Coilforms		0	SELECT	-	SW EQS	no
		Faecal.Coilforms		0	SELECT	-	SW EQS	no
		SVOC		<1.0	ug/l	<10 ug/l	SW EQS	no
		VOC		<1.0	ug/l	<10 ug/l	SW EQS	no
		Selenium		0.4	ug/l		SW EQS	no
		Pesticides			ug/l	0.375 ug/l	SW EQS	no
11/5/2017	MW16 D	Alkalinity		135	mg/l		SW EQS	no
		Boron		<0.02	mg/l	2.0 MG/L	SW EQS	no
		Cadnium		<0.1	ug/l	0.005 mg/l	SW EQS	no
		Chromium		<3.0	ug/l	0.03 mg/l	SW EQS	no
		calcium		1.9	mg/l	-	SW EQS	no
		copper		<0.003	ug/l	0.03 mg/l	SW EQS	no
		cyanide		<10	ug/l	0.01 mg/l	SW EQS	no
		Iron		5400	ug/l	1.0 mg/l	SW EQS	no
		Lead		<0.3	ug/l	0.01 mg/l	SW EQS	no
		Mercury		<0.02	ug/l	0.001 mg/l	SW EQS	no
		Manganese		190	mg/l	0.3 mg/l	SW EQS	no
		magnesium		1.3	mg/l	-	SW EQS	no
		Nickle		2.9	ug/l	0.05 mg/l	SW EQS	no
		potassium		0.7	mg/l	5 mg/l	SW EQS	no
		sodium		6	mg/l	-	SW EQS	no
		Sulphates		2.4	mg/l	200 mg/l	SW EQS	no
		TDS		44	mg/l	-	SW EQS	no

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		TON		<0.15		mg/l	SW EQS	no	
		Total.Coilforms		0		SELECT	SW EQS	no	
		Faecal.Coliforms		0		SELECT	SW EQS	no	
		SVOC		<1.0		ug/l	<10 ug/l	SW EQS	no
		VOC		<1.0		ug/l	<10 ug/l	SW EQS	no
		Selenium		0.5		ug/l		SW EQS	no
		Pesticides				ug/l	0.375 ug/l	SW EQS	no
<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) 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 Drinking water Surface regulations (private supply) Drinking water (public water EQS GTV's standards supply) standards</p>			

Groundwater/Soil monitoring template

Lic No:

0

Year

2017

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:

0

Year

2017

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

		Commentary	
1	ELRA initial agreement status	SELECT	
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	SELECT	
9	Closure plan review status	SELECT	
10	Financial Provision for Closure status	SELECT	
11	Financial Provision for Closure - amount of cover	Specify	
12	Financial Provision for Closure - type	SELECT	
13	Financial provision for Closure expiry date	Enter expiry date	

Environmental Management Programme/Continuous Improvement Programme template	Lic No:	0	Year	2017
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	Highlighted cells contain dropdown menu click to view	Additional Information
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	SELECT
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	SELECT
3	Does the EMS maintain an Environmental Management Programme (EMP) with the licence requirements	Suspended until landfill operational
4	Do you maintain an environmental documentation/communication system to monitor environmental performance of the facility, as required	

Environmental Management Programme (EMP) report

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

Noise monitoring summary report Lic No: 0 Year 2017

- 1 Was noise monitoring a licence requirement for the AER period?
If yes please fill in table N1 noise summary below SELECT
- 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? SELECT
[Noise Guidance note NG4](#)
- 3 Does your site have a noise reduction plan SELECT
- 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? SELECT

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)?
								SELECT	SELECT		SELECT
Noise monitoring suspended until landfill operational											

*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)

		Additional information
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
	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	SELECT
2	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information	SELECT
3		

Energy Use	Previous year	Current year	year**	production*
Total Energy Used (MWHrs)				
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)				
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				

Suspended until landfill operational

* 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

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
Groundwater						
Surface water						
Public supply						
Recycled water						
Total						

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

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

Resource Usage/Energy efficiency summary Lic No: 0 Year 2017

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					

WASTE SUMMARY	Lic No: 0	Year 2017
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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

+ please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

Table 5 Capping-Landfill only

Area uncapped*	Area with temporary cap	Area with final cap to LD Standard m ² 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					

*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?

SELECT
SELECT

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

Volume of leachate in reporting year(m ³)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH ₄) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments

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

Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m ³	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
			SELECT	

Comments on liner type

