Licence number L7064/1997/11

Licence holder City of Rockingham

**ROCKINGHAM 6168** 

**DWER file number** 2010/005913-2

**Duration** 04/09/2015 to 05/09/2029

Date of amendment 02/03/2023

Premises details Millar Road Landfill Facility

204 Millar Road West

**BALDIVIS 6171** 

Legal description -

Lot 2170 on Plan 211650

Certificate of Title Volume 1464 Folio 465 As defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed design capacity
Category 57: Used tyre storage (general)	Up to 250 used tyres at one time
Category 61: Liquid waste facility	1,000 tonnes per annual period
Category 61A: Solid waste facility	10,000 tonnes per annual period
Category 62: Solid waste depot	50,000 tonnes per annual period
Category 64: Class II or III putrescible landfill site	450,000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 02 March 2023, by:

# MANAGER WASTE INDUSTRIES REGULATORY SERVICES

an officer delegated under section 20 of the Environmental Protection Act 1986 (WA)

# **Licence history**

Date	Reference number	Summary of changes	
04/09/2015	L7064/1997/11	Licence reissue and amendment to convert Licence to new format.	
01/10/2015	L7064/1997/11	Licence amendment to correct conditions	
24/03/2016	L7064/1997/11	Licence amendment to increase cat 62 throughput	
29/04/2016	L7064/1997/11	Notice of Amendment to extend the expiry date of the Licence	
27/04/2018	L7064/1997/11	Amendment Notice 1: allow for the acceptance of household hazardous waste types and storage of green waste.	
20/03/2019	L7064/1997/11	Amendment Notice 2: approval to accept and bury PFAS contaminated solid waste in existing Class III landfill cells 16 and 17.	
20/12/2019	L7069/1993/11	DWER initiated amendment to give effect to the Minister's Appeal Determination of 12 September 2019 and amalgamate/consolidate separately issued licence amendment notice in the licence.	
02/03/2023	L7069/1993/11	Amendment to extend capping across landfill cells 10 and 11, increase green waste processing volumes, add category 57 and increase tyre storage, add category 61 and increase hazardous household waste acceptance and minor administrative amendments.	

# Interpretation

#### In this licence:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this licence:
  - (i) if dated, refers to that particular version; and
  - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

**NOTE:** This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

# **Licence conditions**

The licence holder must ensure that the following conditions are complied with:

## Waste acceptance

- **1.** The licence holder must only accept onto the premises waste of a type that:
  - (a) does not exceed the rate at which that waste is received; and
  - (b) meets the relevant acceptance specification, as set out in Table 1.

Table 1: Waste acceptance criteria

Waste type	Rate at which waste is received	Acceptance specification <sup>1</sup>		
Inert Waste Type 1	Combined total of 50,000 tonnes per	(a) Waste containing visible asbestos or ACM must not be accepted.		
Inert Waste Type 2	annual period	(a) No more than 250 tyre units shall be accepted onto the premises at any one time.		
Special Waste Type 1		(a) Non-friable asbestos, friable asbestos and asbestos contaminated soil.		
Special Waste Type 2		(a) Biomedical/clinical waste which is radioactive must not be accepted <sup>2</sup> .		
Clean Fill		(a) None specified.		
Contaminated Solid Waste	Combined total of 450,000 tonnes per	(a) Must meet the Acceptance Criteria for Class III landfills, as specified in the Landfill Definitions.		
Putrescible Waste	annual period	ianumis, as specified in the Landill Delimitoris.		
Quarantine Waste		(a) Must be accepted in accordance with the DoA PMS 2015.		
Special Waste Type 3		(a) Must meet the landfill acceptance criteria for clay/single composite lined landfills in the document titled PFAS National Environmental Management Plan (NEMP), as amended from time to time.		
Green waste	10,000 tonnes per annual period	(a) None specified.		
E-waste		(a) None specified.		
Solid hazardous wastes	Combined total of 1,000 tonnes per annual period	(a) Limited to household batteries, lithium batteries and lead-acid batteries, paints and		
Liquid hazardous wastes	diffidal politica	resins, waste oils, and household hazardous wastes.		

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the Environmental Protection (Controlled Waste) Regulations 2004.

Note 2: Information relating to the classification of radioactive waste can be found in the Western Australian Radiation Safety Act 1975.

2. The licence holder must ensure that where waste does not meet the waste acceptance criteria set out in condition 1, it is removed from the premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility within 7 days of receipt.

## Infrastructure and equipment

3. The licence holder must ensure that the site infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements

	e infrastructure and uipment	Operational requirement	Infrastructure location
1.	Class III Landfill Cells	<ul> <li>(a) Must be lined to achieve a permeability of less than 1x10<sup>-9</sup> meters per second or equivalent;</li> <li>(b) Must incorporate a leachate collection system including lined sumps connected to evaporation ponds;</li> <li>(c) Must incorporate a landfill gas collection and management system;</li> <li>(d) The separation distance between the base of the landfill and the highest groundwater level must not be less than 2.6 m;</li> <li>(e) Cells must be located so that no waste is disposed within 40 m from the boundary of Millar Road and 20 m from all other boundaries at the premises;</li> <li>(f) Landfilled waste must be levelled and compacted to ensure all faces are stable;</li> <li>(g) No works shall be carried out on the landfill that could lead to a release of asbestos fibres or biomedical waste being excavated or uncovered; and</li> <li>(h) Rehabilitation of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.</li> </ul>	The area depicted in Cells 12 to 28 as depicted in Figure 2
2.	Leachate Ponds	<ul> <li>(a) Must contain a composite lining system to achieve a permeability of less than 1x10<sup>-9</sup> m/s or equivalent; and</li> <li>(b) A freeboard of no less than 300 mm must be maintained.</li> </ul>	Leachate Pond 1 Leachate Pond 3 Cell 8 Pond A Cell 8 Pond B; as depicted in Figure 2
3.	Landfill Gas System	(a) The licence holder must install, operate and maintain a system for controlling landfill gas generated on the premises to prevent lateral migration of landfill gas outside the boundary of the premises.	N/A

	e infrastructure and uipment	Operational requirement	Infrastructure location
		<ul> <li>(a) Suitable fencing must be erected and maintained to prevent unauthorised access to the premises;</li> </ul>	
4.	Fencing and site security	<ul><li>(b) Any entrance gates to the premises must be securely locked when the premises is unattended; and</li></ul>	N/A
		(c) Weekly inspections of all security measures must be undertaken and any damage must be repaired within 7 calendar days of its discovery.	
		(a) Signage must be erected and maintained at the entrance to the premises which clearly displays the following information:	
	Signage	(i) hours of operation;	
5.		(ii) contact telephone number;	All entrances to
		(iii) a warning indicating penalties for people lighting fires; and	the premises
		<ul><li>(iv) a list of materials accepted for recycling and the location of where they can be deposited on the premises.</li></ul>	
6.	Groundwater monitoring bores: MR 1 (S, M, D); MR 2 (S, M, D); MR 3 (S, M, D); (a) Must be maintained free from blockages and in		As depicted in Figure 1

# Waste processing and operations

**4.** The licence holder must ensure that the waste types specified in Table 3 are only subjected to the corresponding processes, subject to the corresponding process limits and/or specifications.

**Table 3: Waste processing requirements** 

Wa	aste type	Processes	Process limits and/or specifications <sup>1, 2, 3</sup>
1.	Clean Fill	Receipt, handling	(a) None specified.
2.	Inert Waste Type 1	and storage prior to landfilling or final disposal offsite	(a) Crushing and screening of Inert Waste Type 1 is not permitted.

Wa	ste type	Processes	Process limits and/or specifications <sup>1, 2, 3</sup>
			(a) No more than 250 tyres shall be stored at the premises at any one time;
			(b) Tyres must be stored in the following arrangement:
			(i) Stacked on their side or in the laced storage format depicted in Figure 3;
3.	Inert Waste Type 2		(ii) Within Tyre Stacks that do not exceed 3.7 m in height and 60 m² in area (Figure 4);
			(iii) Within Tyre Piles that contain a maximum of 4 Tyre Stacks with a minimum separation distance of 2.5 m between each stack (Figure 5); and
			(iv) A minimum separation distance of 18 m must be maintained between each Tyre Pile (Figure 6).
4	District State Wests	Receipt, handling and storage prior to landfilling or final disposal offsite	(a) Only to be stored and sorted on a hardstand area bunded to prevent runoff; and
4.	Putrescible Waste		(b) Must not be stored on the premises for longer than 24 hours.
		and and an	(a) Must not be burned;
	Green Waste		(b) Must only be stored on a compacted limestone hardstand;
			(c) Unprocessed green waste must only be stored at the premises for a maximum of 4 months;
5.			<ul><li>(d) Mulched green waste must be stored in windrows no more than 3 m high, 4 m wide and be separated by at least 3.5 m;</li></ul>
			(e) Mulched green waste must be removed within 1 week of mulching except for volumes being kept at the premises for use by the licence holder; and
			(f) Mulched green waste windrows with an internal temperate exceeding 80 degrees Celsius must be turned, mixed or otherwise treated, to reduce the temperature.
	E-waste		(a) Must not be landfilled at the premises;
	Solid hazardous waste	Receipt, handling and storage prior to final disposal offsite	(b) Household hazardous wastes (excluding paint) must be stored in dedicated impermeable bunded storage areas;
6.	Liquid hazardous		(c) Paint must be stored in dedicated storage containers (stillages) provided by the Paintback Scheme; and
	waste		(d) Must not be decanted or treated at the premises.

Wa	ste type	Processes	Process limits and/or specifications <sup>1, 2, 3</sup>	
	Clean Fill			
	Inert Waste Type 1			
_	Inert Waste Type 2	Disposal by landfilling	(a) Must only take place within the Class III Landfill Cells specified in Table 2; and	
7.	Putrescible Waste		(b) The size of the tipping face must be no larger than 40 m long, 30 m wide and 3 m high.	
	Green Waste			
	Contaminated Solid Waste			
	Special Waste Type 1		(a) Special Waste Type 1 must only be disposed of into a designated asbestos disposal area within the landfill;	
8.	Special Waste		(b) Special Waste Type 2 must only be disposed of into a designated biomedical waste disposal area within the landfill cells as defined in Schedule 1; and	
	Type 2		(c) Disposal must not be within 2 m of the final tipping surface of the landfill.	
		Receipt, handling and disposal by landfilling	(a) Must only be disposed of into a designated disposal area within the active Class III Landfill Cells; and	
9.	Special Waste Type 3	G The second sec	(b) Waste concentrations must be less than both the relevant leachable concentrations (ASLP conducted at both pH 5 and 7) and the concentration limit to be consistent with the values in the PFAS National Environmental Management Plan for single composite lined landfill (Table 6: Landfill acceptance criteria).	
10.	Quarantine Waste		(a) Must be managed in accordance with the DoA PMS 2015.	

Note 1: Requirements for landfilling tyres are set out in Part 6 of the Environmental Protection Regulations 1987.

Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the Environmental Protection (Controlled Waste) Regulations 2004.

Note 3: PFAS (NEMP)

5. The licence holder must ensure that cover is applied and maintained on landfilled waste types in accordance with the corresponding cover requirements in Table 4 and that sufficient stockpiles or cover are maintained on the premises at all times.

**Table 4: Cover requirements** 

Waste Type	Cover requirements <sup>1</sup>		
Inert Waste Type 1	No cover required		
Inert Waste Type 2	To be covered by the end of the working day in which the waste was disposed with 100 mm of Inert Waste Type 1 or soil		
Special Waste Type 1	To be covered with 300 mm of soil or 1000 mm of Inert Waste Type 1 as soon as practicable and before compaction		
Special Waste Type 2	To be covered with 300 mm of soil or 1000 mm of inert waste type 1 as soon as practicable and before compaction		
Putrescible waste, green waste and contaminated Solid Waste	<ul> <li>(a) To be covered with 150 mm of Inert Waste Type 1 or soil as soon as practicable and not later than the end of the working day; and</li> <li>(b) To be covered with 1000 mm of Inert Waste Type 1 or soil within 3 months of achieving final waste contours.</li> </ul>		
Quarantine Waste	In accordance with DoA PMS 2015		
Special Waste Type 3	Waste to be covered with 300 mm of soil by the end of the day		

Note 1: Additional requirements for the covering of tyres are set out in Part 6 of the Environmental Protection Regulations 1987.

- 6. The licence holder must undertake inspections of the leachate collection pipes and notify any blockage or other malfunction in accordance with Schedule 3, Part A of this licence within 1 week of observing the issue.
- 7. Where inspection and monitoring indicate inundation or blockage of the leachate collection system, the licence holder must remove leachate from the system via liquid waste transport to a licensed liquid waste facility within 72 hours of observing the issue.
- **8.** The licence holder must submit capping information and undertake capping works in accordance with the requirements in Table 5.

**Table 5: Capping requirements** 

Cell Numbers	Specification	Timescales
Each landfill cell	A capping plan is to be submitted to the CEO including detailed design, material specifications, gas collection, current and finished surveyed levels, construction quality assurance planning	
Each landfill Complete capping works in accordance with Capping Plan submitted to the CEO		No later than 6 months after the completion of waste disposal in each cell

Cell Numbers	Specification	Timescales
	Complete extension of the capping layer over the southern and eastern slopes of Cell 10 and the southern slope of Cell 11 in accordance with the following documents:	
	Cell 10 and 11 Capping Drawings;	
	Landfill Cell 10 & 11 Capping; and	Works must be completed prior to July 2024
	Capping Construction Quality Assurance Plan.	
Cells 10 and 11 Extended	The capping layer must comprise:	
Capping Layer	<ul> <li>Soil cover layer over the waste mass;</li> </ul>	
	Coated GCL synthetic liner;	
	Cushion geotextile;	
	Sand drainage layer;	
	Soil growing medium; and	
	Revegetated final cap surface.	

**9.** The licence holder must ensure that stormwater does not pond on any surface of the landfill.

### **Emissions and discharges**

#### Windblown waste

- **10.** The licence holder must ensure that:
  - (a) no windblown waste escapes from the premises; and
  - (b) any windblown waste is collected on at least a weekly basis and returned to the tipping area or otherwise appropriately contained.

#### Pests, vermin and disease vectors

11. The licence holder must ensure that vermin, birds, flies and other insects do not give rise to nuisance at the premises or in the immediate area of the premises. Any method used by the licence holder must not cause environmental pollution.

#### Fire management

**12.** The licence holder must ensure that no waste is burnt on the premises.

## Monitoring

### **General requirements**

- **13.** The licence holder must ensure that:
  - (a) monitoring is undertaken in each six-monthly period such that there are at least 5 months in between the days on which samples are taken in successive periods of six months; and
  - (b) monitoring is undertaken in each annual period such that there are at least 9 months in between the days on which samples are taken in successive years.

**14.** The licence holder must ensure that all monitoring equipment used to comply with condition 15, 16 and 17 is operated and calibrated in accordance with the manufacturer's specifications.

### **Waste inputs and outputs**

15. The licence holder must record the total amount of waste accepted onto and removed from the premises, for each waste type listed in Table 6, in the corresponding unit, and for each corresponding time period, as set out in Table 6.

Table 6: Waste accepted onto and removed from the premises

Input/Output	Parameter	Units	Averaging period	Frequency
Waste Inputs	Inert Waste Type 1, Inert Waste Type 2, Special Waste Type 1, Special Waste Type 2, Special Waste Type 3, Clean Fill, Solid Contaminated Waste, Putrescible Waste, Quarantine Waste, Green waste, Liquid hazardous waste, Solid hazardous waste and E-waste	Tonnes	N/A	Weekly (estimates recorded during weekly inspections)
Waste Outputs	Waste type as defined in the Landfill Definitions			Each load leaving or rejected from the premises

### **Leachate monitoring**

**16.** The licence holder must undertake the monitoring in Table 7 according to the specifications in that table.

**Table 7: Leachate monitoring** 

Monitoring location	Process description	Parameter	Units	Frequency	Method
	Leachate	pH <sup>1</sup>	None specified	-	
		Electrical conductivity <sup>1</sup>	μS/cm		
Each leachate pond	extracted from each leachate pond as depicted in Schedule 1	Arsenic, cadmium, chromium, copper, iron (total), lead, manganese, mercury, molybdenum, nickel, zinc, Ammoniacal nitrogen, nitrate-nitrogen, total nitrogen, total phosphorus, Total potassium, chloride and sulphate, Total soluble solids, total organic carbon and chemical oxygen demand	mg/L	Six monthly	AS/NZS 5667.1

Monitoring location	Process description	Parameter	Units	Frequency	Method
		Monocylic Aromatic Hydrocarbons: Benzene, toluene ethylbenzene, xylene (total)  Polycyclic Aromatic Hydrocarbons: acenapthene, anthracene, benzo(a)pyrene, fluroanthene, naphthalene, pyrene  Organochlorine pesticides: aldrin, chlordane (and metabolites), DDT (and metabolites), dieldrin, chlorpyrifos, HCB, heptachlor (and its epoxide), lindane  Organophosphates: parathion, demeton-S-methyl, maldison, diazinon, demethoate, fenamiphos, fenthion  Other: atrazine, TCE, PCE and polychlorinated biphenyls (total)	μg/L	Annually	

Note 1: In-field non-NATA accredited analysis permitted.

### **Groundwater monitoring**

- **17.** The licence holder must monitor groundwater for concentrations of the parameters listed in Table 8:
  - (a) at the corresponding monitoring location;
  - (b) in the corresponding unit;
  - (c) at no less than the corresponding frequency; and
  - (d) using the corresponding method,

as set out in Table 8. Table 8: Monitoring of ambient groundwater quality

Monitoring location	Parameter		Frequency	Method
MR 1 (S, M, D) MR 2 (S, M, D) MR 3 (S, M, D) MR 4 (S, M, D) MR 5 (S, M, D) MR 6 (S, M, D) MR 7 (S, M, D) MR 19 MR 20 As depicted in Schedule 1	Monocyclic Aromatic Hydrocarbons Benzene, Ethylbenzene, Toluene and Xylenes.  Polycyclic Aromatic Hydrocarbons (PAHs): Acenapthene, Anthracene, Benzo(a)pyrene, Fluroanthene, Napthalene and Pyrene.  Organochlorine pesticides: Aldrin, Chlorpyrifos, Chlordane and its metabolites, DDT and metabolites, Dieldrin, HCB, Heptachlor (and its epoxide) and Lindane.  Organophosphates: Parathion, Demeton-S-methyl, Maldison, Diazinon, Dimethoate, Fenamiphos and Fenthion.  Other: Atrazine, TCE, PCE and Polychlorinated Biphenyls (PCBs).	μg/L	Annually (During August or September)	AS/NZS 5667.11

Monitoring location	Parameter	Units	Frequency	Method
	Ammonia-Nitrogen (NH3-N), COD (Chemical Oxygen demand), Nitrate Nitrogen (NO3-N), Total Phosphorus, Total Nitrogen, TDS (Total Dissolved Solids) and TOC (Total Organic Carbon).			
	Major cations and anions: mg/L			
	Total Potassium, Chloride and Sulphate.	IIIg/L		
	Metals:		Six-monthly	
	Arsenic, Cadmium, Chromium, Copper, Iron (total), Lead, Manganese, Nickel and Zinc		(During February or March and	
	pH <sup>1</sup>	pH units	August or September)	
	Electrical Conductivity <sup>1</sup>	μS/cm		
	Standing Water Level (SWL) <sup>1,2</sup>	m AHD		
	Dissolved Oxygen (DO)	mg/L		
	6:2 Fluorotelomer sulfonate (6:2 FtS)			
	8:2 Fluorotelomer sulfonate (8:2 FtS)			
Bore MR3	Perfluorooctane sulfonamide (PFOSA)			
Bore MR5	N-Methy-heptade cafluorooctanne sulfonamide (N-Me-FOSA)		Annually	
Bore MR6 Bore MR7	N-Ethyl-heptade cafluorooctanne sulfonamide (N-Et-FOSA)	μg/L	(During August or September)	
Bore MR19	N-Methy-heptade cafluorooctanne sulfonamidoethanol (N-Me-FOSE)			
Bore MR20	N-Ethyl-heptade cafluorooctanne sulfonamidoethanol (N-Et-FOSE)			
	Perfluorobutane sulfonate (PFBS)			
	Perfluorohexane sulfonate (PFHxs)			
	Perfluorooctane sulfonate (PFOS)			
	Perfluorodecane sulfonate (PFDcS)			
Bore MR3	Perfluorohexanoic acid (PFHxA)			
Bore MR5	Perfluoroheptanoic acid (PFHpA)			
Bore MR6 Bore MR7 Bore MR19	Perfluorooctanoic acid (PFOA)		Annually	
	Perfluorodecanoic acid (PFDcA)	μg/L	(During August or	AS/NZS 5667.11
	Perfluoropentanoic acid (PFPeA)		September)	
Bore MR20	Perfluoroundecanoic acid (PFUnA)			
DOIG WILL	Perfluorododecanoic acid (PFDoA)			
	Perfluorotridecanoic acid (PFTriA)			
	Perfluorotetradecanoic acid (PFTeA)			

Note 1: In-field non-NATA accredited analysis permitted.

Note 2: SWL shall be determined prior to collection of other water samples.

18. The licence holder must ensure that all sample analysis pursuant to conditions 16 and 17 is undertaken by laboratories with current accreditation from the National Association of Testing Authorities for the relevant parameters, unless otherwise specified in the corresponding table.

### **Records and reporting**

#### **Records**

- 19. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
  - (a) the name and contact details of the complainant, (if provided);
  - (b) the time and date of the complaint;
  - (c) the complete details of the complaint and any other concerns or other issues raised; and
  - (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
- **20.** The licence holder must maintain a register of Special Waste Type 1 and Special Waste Type 2 disposed at the premises which must include a plan detailing:
  - (a) the position of Special Waste Type 1 (Asbestos waste) and Special Waste Type2 (Biomedical and clinical waste) disposed of at the premises;
  - (b) the date of disposal; and
  - (c) the name of the person that deposited the waste.
- **21.** The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
  - (a) the calculation of fees payable in respect of this licence;
  - (b) the works conducted in accordance with condition 8 of this licence;
  - (c) any maintenance of infrastructure that is performed in the course of complying with condition 3 of this licence;
  - (d) monitoring programs undertaken in accordance with conditions 15, 16 and 17 of this licence; and
  - (e) complaints received under condition 19 of this licence.
- **22.** The books specified under condition 21 must:
  - (a) be legible;
  - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
  - (c) be retained by the licence holder for the duration of the licence; and
  - (d) be available to be produced to an inspector or the CEO as required.

### Reporting

- **23.** The licence holder must:
  - (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
  - (b) prepare and submit to the CEO by no later than 30 September after the end of that annual period an Annual Audit Compliance Report in the approved form.
- 24. The licence holder must submit to the CEO by no later than 30 September after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Table 9, and which provides information in accordance with the corresponding requirement set out in Table 9.

**Table 9: Annual Environmental Report** 

Condition or table	Requirement		
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken		
-	A summary of all fire incidents that have occurred during the annual period		
15	Monitoring of input and outputs		
17	Summary of the ambient groundwater quality monitoring results that includes:		
	(a) a clear statement of the scope of work carried out;		
	(b) a description of the field methodologies employed;		
	<ul><li>(c) a summary of the field and laboratory quality assurance / quality control (QA/QC) program;</li></ul>		
	(d) copies of the field monitoring records and field QA/QC documentation;		
	(e) an assessment of reliability of field procedures and laboratory results;		
	(f) a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file), with all results being clearly referenced to laboratory certificates of analysis;		
	<ul> <li>(g) a diagram with aerial image overlay showing all monitoring locations and depicting groundwater level contours, flow direction and hydraulic gradient (relevant site features including discharge points and other potential sources of contamination must also be shown);</li> </ul>		
	<ul> <li>(h) an interpretive summary and assessment of the results against relevant assessment levels for water, as published in the Guideline Assessment and management of contaminated sites;</li> </ul>		
	<ul> <li>(i) an interpretive summary and assessment of results against previous monitoring results; and</li> </ul>		
	<ul> <li>(j) trend graphs to provide a graphical representation of historical results and to support the interpretive summary.</li> </ul>		

Condition or table	Requirement	
16	Summary of the process monitoring results that includes:	
	(a) a clear statement of the scope of work carried out;	
	(b) a description of the field methodologies employed;	
	(c) a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file), with all results being clearly referenced to laboratory certificates of analysis;	
	(d) a diagram with aerial image overlay showing all monitoring locations; and	
	(e) an interpretive summary and assessment of results against previous monitoring results.	
19	Complaints summary	

### **Notifications**

**25.** The licence holder must ensure that the parameters listed in Table 10 are notified to the CEO in accordance with the notification requirements of the table.

**Table 10: Notification requirements** 

Condition or table	Parameter	Notification requirement <sup>1</sup>	Format or form <sup>2</sup>
6	Leachate drainage malfunction	Within 7 days of observing the issue	N1
-	Unauthorised fire	Within 14 days of any unauthorised fire	To the Pollution Watch hotline, via:  - pollutionwatch@dwer.wa.gov.au; and  - 1300 784 782
-	Breach of any limit specified in the Licence	As soon as practicable but no later than 5pm of the next usual working day.	N1
Table 2	Any bores listed in Table 2 are destroyed or otherwise made unserviceable	Within 7 days of the event	None specified

Note 1: No notification requirement in the Licence shall negate the requirement to comply with s72 of the Act.

Note 2: Forms are in Schedule 3.

### **Specified actions**

- **26.** The licence holder must within 30 calendar days of the Cell 10 and 11 Extended Capping Layer required by condition 8 being constructed and/or installed:
  - (a) undertake an audit of their compliance with the requirements of condition 8; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
- **27.** The Environmental Compliance Report required by condition 26, must include as a minimum the following:
  - (a) certification by a suitably qualified engineer that the Cell 10 and 11 Extended Capping Layer, as specified in condition 8, has been constructed in accordance with the relevant requirements specified in condition 8;
  - (b) provide evidence to demonstrate that all the relevant requirements specified in condition 8 and the *Capping Construction Quality Assurance Plan* have been complied with;
  - (c) an as-constructed version of the *Cell 10 & 11 Capping Layout (MILL-300)* engineering drawing; and
  - (d) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

# **Definitions**

In this licence, the terms in Table 11 have the meanings defined.

**Table 11: Definitions** 

Term	Definition
AACR	Annual Audit Compliance Report
ACM	means asbestos-containing material
ACN	Australian Company Number
Acceptance Criteria	has the meaning defined in the Landfill Definitions
AHD	Australian Height Datum
Annual Audit Compliance Report	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website)
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year
AS/NZS 5667.1	means Australian Standard AS/NZS 5667.1 Water quality - Sampling - Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples
AS/NZS 5667.11	means Australian Standard AS/NZS 5667.11 Water quality - Sampling - Guidance on sampling of groundwaters
asbestos	means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite and any mixture containing 2 or more of those
asbestos fibres	has the meaning defined in the Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia
Asbestos Guideline	means the document titled Guidelines for managing asbestos at construction and demolition waste recycling facilities
books	has the same meaning given to that term under the EP Act
Capping Construction Quality Assurance Plan	means the document titled Millar Road Landfill Landfill Capping Construction Activities: Construction Quality Assurance Plan (July 2020) produced for the City of Rockingham

Term	Definition	
Cell 10 and 11 Capping Drawings	means the following series of engineering drawings for the Millar Road Landfill Facility:	
	- Cell 10 & 11 Capping Layout (MILL-300);	
	<ul> <li>Proposed Cell 10 &amp; 11 Capping Typical Sections - Sheet 1 of 2 (MILL-301);</li> </ul>	
	<ul> <li>Proposed Cell 10 &amp; 11 Capping Typical Sections - Sheet 2 of 2 (MILL- 302); and</li> </ul>	
	<ul> <li>Leachate Sump Penetration Detail (MILL-303).</li> </ul>	
CEO	means Chief Executive Officer of the Department.	
	"submit to / notify the CEO" (or similar), means either:	
	Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919	
	or:	
	info@dwer.wa.gov.au	
Clean Fill	has the meaning defined in the Landfill Definitions	
Cover Material	means subsoil or other approved inert waste used for covering of waste	
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3	
DFES	Department of Fire and Emergency Services	
discharge	has the same meaning given to that term under the EP Act.	
DoA PMS 2015	means the Australian Government Department of Agriculture <i>Process</i> Management System for the Burial of Quarantine Waste 2015	
emission	has the same meaning given to that term under the EP Act	
EP Act	Environmental Protection Act 1986 (WA)	
EP Regulations	Environmental Protection Regulations 1987 (WA)	
GCL	Geosynthetic Clay Liner	
Green Waste	means waste that originates from flora and which does not contain or has not been treated or coated with, preserving agents, biocides, fire retardants, paint, adhesives or binders	
Hazardous waste	has the meaning defined in the Landfill Definitions	
Inert Waste Type 1	has the meaning defined in the Landfill Definitions	

Term	Definition
Inert Waste Type 2	has the meaning defined in the Landfill Definitions
Landfill Cell 10 & 11 Capping	means the document titled Construction of Landfill Cell 10 & 11 Capping at the Millar Road Landfill Facility, Baldivis produced by the City of Rockingham
Landfill Definitions	means the document titled <i>Landfill Waste Classification and Waste Definitions</i> 1996 published by the CEO
Leachate	means a liquid containing contaminants leached from the waste mass produced as water percolates through a landfill
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted
m	metres
mm	millimetres
m/s	metres per second
Municipal Waste	means waste collected at the kerbside by the local authority collection vehicle or its contractor
NATA	National Associated of Testing Authorities, Australia
NATA Accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 and coordinates table (Table 12) in Schedule 2 to this licence
prescribed premises	has the same meaning given to that term under the EP Act.
Putrescible Waste	has the meaning defined in the Landfill Definitions
Quarantine Waste	has the meaning defined in the Quarantine Act 1908
Rehabilitation	means the completion of the engineering of a landfill cell and includes capping and/or final cover
Schedule 1	means Schedule 1 of this Licence unless otherwise stated
Schedule 2	means Schedule 2 of this licence unless otherwise stated
Schedule 3	means Schedule 3 of this licence unless otherwise stated
Special Waste Type 1	has the meaning defined in the Landfill Definitions

Term	Definition	
Special Waste Type 2	has the meaning defined in the Landfill Definitions	
Special Waste Type 3	has the meaning defined in the Landfill Definitions	
Spot Sample	means a discrete sample representative at the time and place at which the sample is taken	
tipping area	means the area of the landfill in which waste other than cover material is being deposited	
usual working day	means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia	
waste	has the same meaning given to that term under the EP Act	

### **END OF CONDITIONS**

# **Schedule 1: Maps**

# **Premises map**

The boundary of the prescribed premises is shown in red in the map below (Figure 1).



Figure 1: Map of the boundary of the prescribed premises

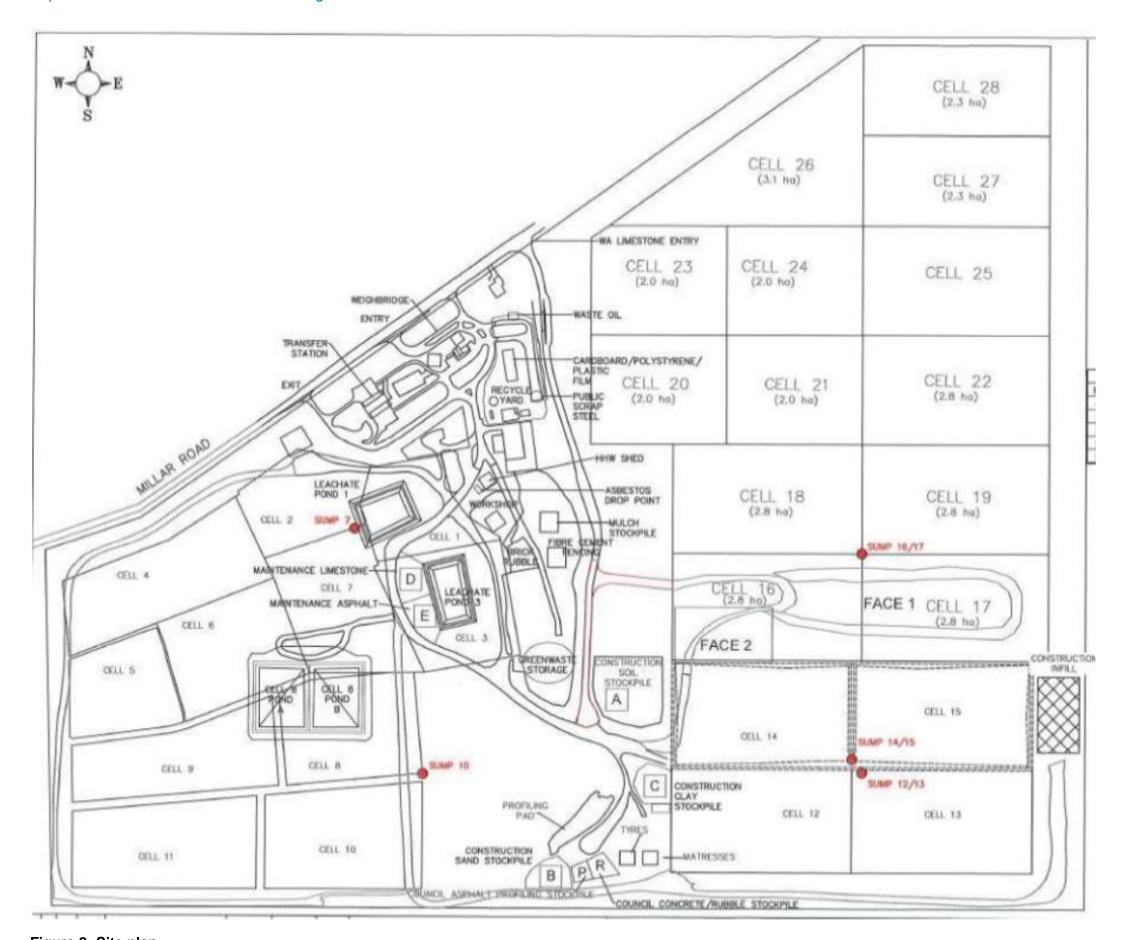


Figure 2: Site plan

L7064/1997/11 (02 March 2023)

IR-T06 Licence template (v6.0) (February 2020)

# **Schedule 2: Premises boundary**

The vertices of the premises boundary are the coordinates listed in Table 12.

Table 12: Premises boundary coordinates (GDA2020 MGA Zone 50)

Point	Easting	Northing
1.	388159.23	6427080.09
2.	388270.40	6427119.69
3.	388602.68	6427359.57
4.	388934.95	6427599.45
5.	389267.23	6427839.33
6.	389373.72	6427896.34
7.	389379.59	6427403.68
8.	389385.46	6426911.01
9.	389386.72	6426805.83
10.	389388.23	6426678.70
11.	388983.97	6426673.92
12.	388579.70	6426669.14
13.	388175.43	6426664.36

# **Schedule 3: Notification forms**

Licence: L7064/1997/11 Licence Holder: City of Rockingham

Form: N1 Date of breach:

#### Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements must be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Pa	rt	Α
ı cı	IL	$\overline{}$

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	
	•

Notification requirements for the breach of a limit		
Emission point reference/ source		
Parameter(s)		
Limit		
Measured value		
Date and time of monitoring		
Measures taken, or intended to be taken, to stop the emission		

### Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	

The dates of any previous N1 notifications for the Premises in the preceding 24 months.	
Name	
Post	
Signature on behalf of City of Rockingham	
Date	

# **Schedule 4: Tyre storage arrangements**

**Laced Storage - For Outdoor Storage Only -** Tyres are stacked in an overlapping manner to create a woven or laced arrangement. This configuration helps limit fire spread as it reduces ability of burning tyres to fall and roll into unignited stock, figure 5.



Figure 3: Laced storage of tyres

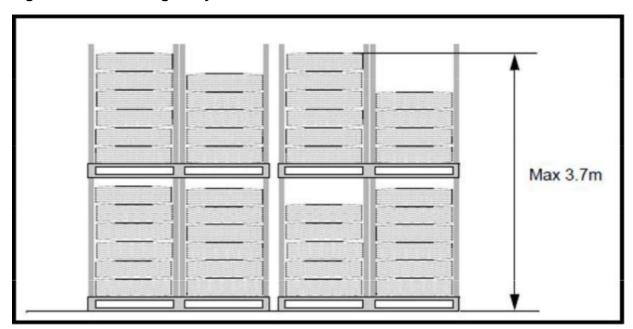


Figure 4: Maximum Tyre Stack height

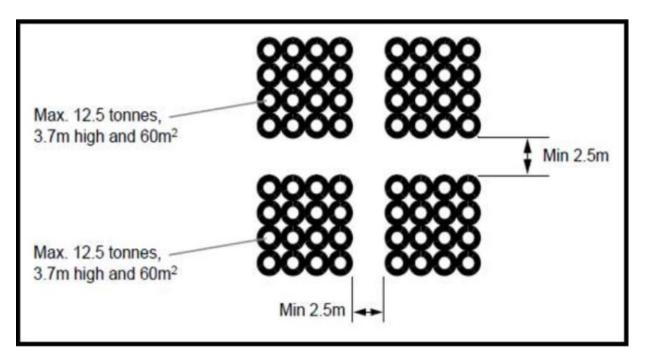


Figure 5: Minimum separation distance between 4 Tyre Stacks in 1 Tyre Pile

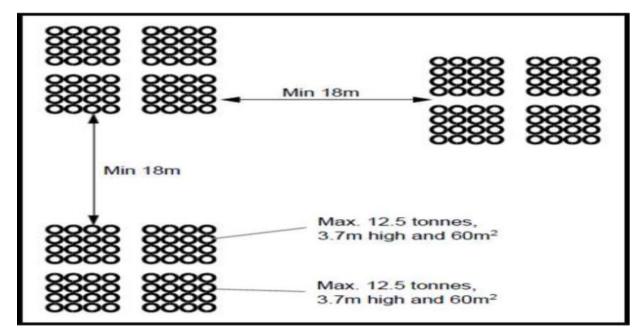


Figure 6: Minimum separation distance between Tyre Piles