



Licence number	L6640/1994/11
Licence holder	Water Corporation
ACN	634 169 841
Registered business address	John Tonkin Centre 629 Newcastle Street LEEDERVILLE WA 6007
DWER file number	SWB1993-05/1
Duration	01/11/2011 to 31/10/2033
Date of amendment	19 June 2023
Premises details	Gnarabup Wastewater Treatment Plant Gas Bay Road GNARABUP WA 6285 Legal description - Lot 603 on Deposited Plan 19971 as depicted in Figure 1, Schedule 1 of this licence

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 54 Sewage facility: premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	356 m ³ per day

This licence is granted to the licence holder, subject to the attached conditions, on 19 June 2023, by:

Grace Campbell
A/Senior Environmental Officer, 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
07/02/1994	W1056/1994/1	Works Approval granted
13/05/1998	W2384/1994/1	Works Approval granted
23/05/2000	L6640/1994/2	Licence re-issue
29/03/2001	L6640/1994/3	Licence re-issue
29/03/2002	L6640/1994/4	Licence re-issue
29/03/2002	L6640/1994/5	Licence re-issue amendment to extend the duration
27/09/2002	L6640/1994/6	Licence re-issue
27/09/2003	L6640/1994/7	Licence re-issue
28/09/2004	L6640/1994/8	Licence re-issue
01/11/2007	L6640/1994/9	Licence re-issue
01/11/2010	L6640/1994/10	Licence re-issue
01/11/2013	L6640/1994/11	Licence re-issue
29/04/2016	L6640/1994/11	Notice of Amendment of Licence expiry dates. Licence expiry date amended to 31/10/2033
2/06/2016	L6640/1994/11	Licence Holder initiated amendment to change flow monitoring requirements
21/05/2021	L6640/1994/11	Licence Holder initiated amendment to update reference to groundwater monitoring bores
19 June 2023	L6640/1994/11	Licence amendment to change submission dates for the Annual Environmental Report (AER) and Annual Audit Compliance Report (AACR).

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 waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 1.

Table 1: Types of waste authorised to be accepted onto the premises

Waste type	Rate at which waste is received	Acceptance specification
Sewage	356 m ³ /day	Accepted through sewer inflow(s) only. In the event that untreated wastewater is to exceed the quantity limit accepted to the premises, the untreated wastewater is to be tankered offsite for disposal to a facility Licensed to receive this waste.

Waste processing

2. The Licence Holder must ensure that the wastes accepted onto the Premises are only subjected to the processes set out in Table 2 and in accordance with any process limits described in that table.

Table 2: Waste processing

Waste type	Process	Process requirements
Sewage	Biological Physical Chemical	Up to 356m ³ /day. Use of two Intermittently Decanting Extended Aeration (IDEA) plant.
Sewage sludge	Storage until dried	Return sludge leachate from the drying beds back to the inlet of the treatment plant. Disposed of to an appropriate landfill facility.

3. The Licence Holder must ensure that wastewater and sewage sludge is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 3.

Table 3: Containment infrastructure

Storage vessel or compound	Material	Infrastructure requirements
Two Intermittently Decanting Extended Aeration	Wastewater	Contained within concrete tanks.
Final Treatment Tank		None specified.
Sludge Drying Beds	Sludge and leachate	Concrete lined sludge drying beds. De-sludged material to be located on hardstand area.
Infiltration Ponds	Treated effluent	None specified.

4. The Licence Holder must manage the wastewater treatment plant such that:
 - (a) overtopping of the vessels, drying beds and ponds does not occur;
 - (b) stormwater runoff is prevented from entering the treatment area and vessels;
 - (c) there is no discernible seepage loss from the treatment vessels;
 - (d) vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the vessels, drying beds and ponds;
 - (e) all treated wastewater is directed through the upper discharge pipe in the final treatment tank; and
 - (f) discharge treated wastewater from the final treatment tank to the infiltration ponds.
5. The Licence Holder must manage the infiltration area such that:
 - (a) treated wastewater is distributed to the two eastern infiltration ponds (closest to the treatment plant) to maximise infiltration and contaminant reduction through biological interaction;
 - (b) only in maintenance and/or emergency situations, distribute treated wastewater to the southern infiltration pond; and
 - (c) signage is maintained around the infiltration area warning the public that the water is treated sewage and unfit for swimming and drinking.
6. The Licence Holder shall implement the following security measures at the site:
 - (a) erect and maintain suitable fencing to prevent unauthorised access to the site;
 - (b) ensure that any entrance gates to the premises are securely locked when the premises are unattended; and
 - (c) undertake regular inspections of all security measures and repair damage as soon as practicable.

Monitoring

7. The Licence Holder must ensure that:
 - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
 - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
 - (d) all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
 - (e) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.
8. The Licence Holder must ensure that quarterly monitoring is undertaken at least 45 days apart.
9. The Licence Holder must ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.
10. The Licence Holder must, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

Monitoring of inputs and outputs

11. The Licence Holder must record the total amount of waste accepted onto the premises, for each waste type listed in Table 4, in the corresponding unit, and for each corresponding time period, as set out in Table 4.

Table 4: Waste accepted onto the premises

Waste type	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Sewage – inlet flow	Inflow meter	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous

12. The Licence Holder must record the total amount of waste removed from the premises, for each waste type listed in Table 5, in the corresponding unit, and for each corresponding time period set out in Table 5.

Table 5: Waste removed from the premises

Waste type	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Sewage tankered off-site	N/A	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Each load

Discharge and ambient environmental monitoring

13. The Licence Holder must undertake the monitoring in Table 6 according to the specifications in that table.

Table 6: Monitoring of discharge and ambient environmental quality

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
Discharge from treatment plant to the infiltration area	pH	-	Spot sample	Monthly
	5 day Biochemical Oxygen Demand	mg/L		
	Total Dissolved Solids			
	Total Suspended Solids			
	Nitrate and Nitrite-Nitrogen			
	Ammonium – Nitrogen			
	Total Nitrogen			
	Total Phosphorous			
	<i>E. coli</i>	MPN/100 mL or CFU/100 mL		
	Metals (aluminium, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel and zinc)	mg/L	Quarterly	
Bores 1/17, 2/17, 3/17 and 4/17 (as shown in Schedule 1)	pH ¹	-	Spot sample	Quarterly
	Electrical conductivity ¹	µS/cm		
	Redox potential ¹	mV		
	Dissolved oxygen ¹	mg/L		
	Standing water level ¹	m(AHD)		
	Total Dissolved Solids	mg/L		
	Nitrate and Nitrite-Nitrogen			
	Ammonium – Nitrogen			

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
	Total Nitrogen			
	Total Phosphorous			
	<i>E. coli</i>	MPN/100 mL		
	<i>Enterococci</i>	or CFU/100 mL		
	Metals (aluminium, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, nickel and zinc)	mg/L		
Shore Sample Points 1, 2, 3 and 4 (as shown in Schedule 1)	Total Nitrogen	mg/L	Spot sample	December and February
	Ammonium – Nitrogen			
	Nitrate and Nitrite-Nitrogen			
	Filterable Reactive Phosphorous			
	Total phosphorus			
	Chlorophyll a			
	Metals (cadmium, copper, lead, mercury and zinc)			
	<i>Enterococci</i>	MPN/100 mL or CFU/100 mL		

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

14. The Licence Holder must maintain monitoring bores 1/17, 2/17, 3/17 and 4/17, at the locations depicted in Schedule 1, to allow representative water samples to be collected.

Records and reporting

- 15.** 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) any maintenance of infrastructure that is performed in the course of complying with condition 3 of this licence;
 - (c) monitoring programmes undertaken in accordance with conditions 7 to 13 of this licence; and
 - (d) complaints received under condition 18 of this licence.
- 16.** The books specified under condition 15 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.
- 17.** 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 an Annual Audit Compliance Report in the approved form by 1 October each year.
- 18.** 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.
- 19.** The licence holder must
 - (a) prepare an environmental report that provides information in accordance with Table 7 for the preceding annual period, and
 - (b) submit the environmental report to the CEO by 1 October each year.

Table 7: Environmental Report

Condition or table (if relevant)	Requirement	Format or form ¹
-	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	None specified
-	The Licence Holder must determine the monthly load of each contaminant in the treated water discharged from the treatment plant. The loads shall be based on the water discharge rate and the concentration as measured in accordance with conditions 11, 12 and 13.	Monthly and annual average loads of contaminants reported.
Conditions 11 and 12 Tables 4 and 5	Monitoring of inputs and outputs	None specified
Condition 13 Table 6	Discharge quality: An interpretive summary and assessment of discharge quality monitoring results against previous monitoring results. Trend graphs shall be provided in support of this assessment.	A summary of the results should be presented in tabulated form.
	Groundwater and shore water quality: (a) a clear statement of the scope of work carried out; (b) a description of the field methodologies employed; (c) a summary of the field and laboratory quality assurance / quality control (QA/QC) program; (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; (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	As specified in 'Requirement' column

Condition or table (if relevant)	Requirement	Format or form ¹
	<p>discharge points and other potential sources of contamination must also be shown);</p> <p>(h) an interpretive summary and assessment of the results against relevant assessment levels for water, as published in the <i>Guideline Assessment and management of contaminated sites</i>;</p> <p>(i) an interpretive summary and assessment of results against previous monitoring results;</p> <p>(j) trend graphs to provide a graphical representation of historical results and to support the interpretive summary.</p> <p>Note 1: General guidance on report presentation can be found in the Department's <i>Guideline: Assessment and management of contaminated sites</i>.</p>	
Condition 17	Compliance	Annual Audit Compliance Report (AACR)
Condition 18	Summary of complaints	None specified

Definitions

In this licence, the terms in Table 8 have the meanings defined.

Table 8: Definitions

Term	Definition
ACN	means Australian Company Number
AHD	means the Australian Height Datum
Annual Audit Compliance Report (AACR)	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 2031	means the Australian Standard AS/NZS 2031 <i>Selection of containers and preservation of water samples for microbiological analysis</i>
AS/NZS 4276.21	means the Australian Standards AS/NZS 4276.21 <i>Examination for coliforms and Escherichia coli – Determination of most probable number (MPN) using enzyme hydrolysable substrates</i>
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 <i>Water Quality – Sampling – Guidance on sampling of waste waters</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water Quality – Sampling – Guidance on sampling of groundwaters</i>
averaging period	means the time over which a limit is measured or a monitoring result is obtained
books	has the same meaning given to that term under the EP Act.
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
CFU	means colony forming units
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.

Term	Definition
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Guideline Assessment and Management of Contaminated Sites	means the document titled Assessment and management of contaminated sites, Contaminated sites guidelines (Department of Environment Regulation, December 2014), as amended from time to time
hardstand	means a surface with a permeability of 10 ⁻⁹ metres/second or less
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.
MPN	most probable number analysis conducted in accordance with AS/NZS 4276.21
NATA	means the National Association 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 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
quarterly	means the 4 inclusive periods from 1 July to 30 September, 1 October to 31 December and in the following year 1 January to 31 March, 1 April to 30 June.
Schedule 1	means Schedule 1 of this Licence unless otherwise stated
spot sample	means a discrete sample representative at the time and place at which the sample is taken
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 by the red line in the map below (Figure 1). The groundwater monitoring bores are also shown.

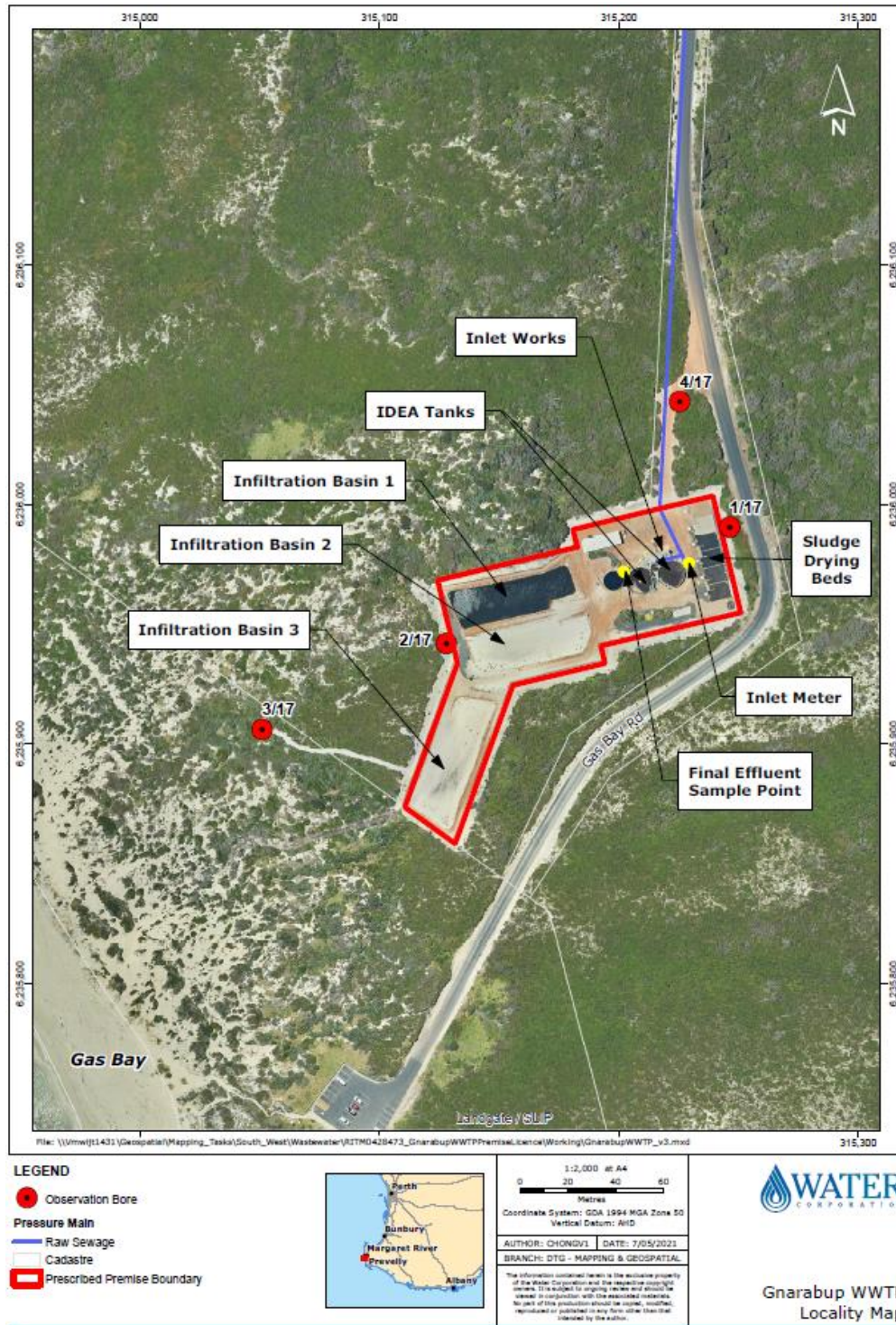


Figure 1: Map of the boundary of the prescribed premises

L6640/1994/11 (19 June 2023)

IR-T06 Licence template (v8.0) (September 2022)

Shore sample points

The location of shore sample points is shown by the red circles in the map below (Figure 2).



Figure 2: Shore sample points