Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L6316/1991/13
Licence holder	Water Corporation
Registered business address	629 Newcastle Street LEEDERVILLE WA 6007
DWER file number	DER2016/000916
Duration	1/11/2011 to 31/10/2033
Date of issue	20/10/2011
Date of amendment	12/12/2023
Premises details	Wagin Sewage Facility 1801 Cowcher Road WAGIN WA 6315 Legal description - Lot 1801 on Plan 175363

Prescribed premises category description **(Schedule 1, *Environmental Protection Regulations 1987*)**	**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.	260 m^3 day

This licence is granted to the licence holder, subject to the attached conditions, on 12 December 2023 by:

Steve Checker

Digitally signed by Steve Checker
Date: 2023.12.12 17:29:04 +08'00'

Stephen Checker
MANAGER WASTE INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Licence history for the previous 10 year period has been included.

Date	Reference number	Summary of changes
7 June 2012	L6316/1991/13	Amendment to include conditions requiring the submission and implementation of an Environmental Improvement Plan.
29 April 2016	L6316/1991/13	Amendment to Licence expiry date.
14 September 2018	L6316/1991/13	Amendment in response to Licence review – implementation of additional monitoring requirements and a cease date for discharges to the treated wastewater discharge area.
23 June 2023	L6316/1991/13	Administrative amendment to extend the cease date for discharges to the treated wastewater discharge area by six months.
12 December 2023	L6316/1991/13	Amendment for the removal of the discharge cease date, a change to groundwater monitoring frequency and the implementation of surface water monitoring.

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 that is of a waste type specified in in Table 1 that does not exceed the corresponding approved capacity and that meets the corresponding waste specification as set out in Table 1.

Table 1: Waste acceptance

Waste type	Approved capacity	Waste specification
Sewage	260 m^3 per day (monthly average)	Accepted via: (i) sewer inflows; or (ii) from a Carrier

Waste processing

2. The Licence Holder must:

(a) direct all sewage inflow to primary pond 1 or primary pond 2 for settlement and facultative treatment;

(b) direct all sewage from the primary ponds to the secondary pond for maturation;

(c) direct all sewage from the secondary pond to the tertiary pond for maturation;

(d) direct all Treated Sewage from the tertiary pond to Discharge Point L1;

(e) direct all sewage sludge removed from the ponds to a sludge drying hardstand or remove from the Premises; and

(f) direct all leachate from a sludge drying hardstand to a pond in the Sewage Treatment System, excluding the tertiary pond.

Infrastructure and equipment

3. The Licence Holder must ensure that the premises infrastructure and equipment specified in Table 2 is maintained in good working order and operated in accordance with the infrastructure and equipment specifications and operational requirements specified in Table 2.

Table 2: Infrastructure, equipment and operational controls

Premises infrastructure and equipment	Infrastructure and equipment specifications	Operational requirements
Sewage inflow, outflow and conveyance pipes.	None applicable.	Do not leak or result in discharge to the environment except treated sewage discharged in accordance with Condition 3.
Two separate parallel primary ponds (Primary Pond 1 and Primary Pond 2).	• Hydraulic head: (i) Primary pond 1 maximum depth 1.05 m. (ii) Primary pond 2 maximum depth 1.07 m. • Primary pond profiles: (i) Primary pond 1: 128 m (L), 35 m (W) and capacity of 3922 m3. (ii) Primary pond 2: 130 m (L), 37 m (W) and capacity of 4842 m3. • Top of pond embankments sloped to direct stormwater away from the ponds.	Ponds are managed to ensure a minimum 300 mm freeboard.
One secondary pond.	• Hydraulic head: maximum depth 1.6 m. • Pond profile: 92 m (L), 52 m (W) and capacity of 6847 m3. • Top of pond embankments sloped to direct stormwater away from the ponds.	Ponds are managed to ensure a minimum 300 mm freeboard.
Copper dosing unit.	None applicable.	Must be operated to ensure compliance with Condition 1(b).
One tertiary pond.	• Hydraulic head: maximum depth is 1.80 m. • Pond profile: 93 m (L), 34 m (W) and capacity of 4541 m3. • Top of pond embankments sloped to direct stormwater away from the ponds.	Ponds are managed to ensure a minimum 300 mm freeboard. Discharge all treated sewage to Discharge Point L1.

Premises infrastructure and equipment	Infrastructure and equipment specifications	Operational requirements
Treated sewage discharge via flow monitoring point (Discharge Point L1).	Magnetic flow meter	Maintained free of leaks and defects. Calibrated every 5 years.
Sewage sludge drying hardstand	A sludge drying hardstand must comprise of a compacted gravel based covered with a sand layer and impervious plastic liner.	Sludge must be stored within a pond or on a sludge drying hardstand.
Groundwater monitoring bores	Located in accordance with the monitoring locations in Schedule 1 of this Licence.	Maintain free of obstruction and defect.

Monitoring requirements

4. 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 unless indicated otherwise in Table 3, Table 4 or Table 5.

5. The Licence Holder must ensure that the cumulative volumetric flow rate of sewage inflow to the premises is continuously monitored and recorded at a minimum averaging period of monthly at the Union Street sewage pump station Magflow meter.

6. The Licence Holder must monitor treated sewage for volume and concentrations of the parameters listed in Table 3:

(a) at the corresponding sampling point;

(b) for each corresponding parameter in the corresponding units;

(c) at no less than the corresponding frequency; and

(d) for the corresponding averaging period.

Table 3: Treated sewage discharge monitoring

Sampling Point	Parameter	Units	Frequency	Averaging period
Discharge Point L1 (Treated sewage	Volumetric flow rate (cumulative)[1]	m^3/day	Continuous	Monthly
	pH[1]	-	Quarterly	Spot

Sampling Point	Parameter	Units	Frequency	Averaging period
discharge)	Ammonium (NH_4-N)	mg/L		Sample
	Nitrate + nitrite – nitrogen			
	Total biochemical oxygen demand			
	Total dissolved solids			
	Total metals (aluminium, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, nickel, potassium, zinc)			
	Total nitrogen			
	Total phosphorus			
	Total suspended solids			
	Boron			
	Caffeine			
	Sucralose			
	Escherichia coli	cfu/100mL		

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

7. The Licence Holder must monitor groundwater for concentrations of the parameters listed in Table 4:

(a) at the corresponding sampling point;

(b) for each corresponding parameter in the corresponding units;

(c) at no less than the corresponding frequency; and

(d) for the corresponding averaging periods.

Table 4: Groundwater monitoring

Sampling Point	Parameter	Units	Frequency	Averaging period
GW1, GW2, GW3 and GW4,	Standing water level[1]	mAHD; mBGL	Quarterly	Spot Sample
	pH[1]	-		
	Electrical conductivity[1]	µS/cm		
	Redox potential[1]	Eh		
	Ammonium (NH_4-N)	mg/L		
	Nitrate + nitrite – nitrogen			
	Total dissolved solids			

Sampling Point	Parameter	Units	Frequency	Averaging period
	Dissolved metals (aluminium, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, nickel, potassium, zinc)			
	Total nitrogen			
	Total phosphorus			
	Boron			
	Caffeine			
	Sucralose			
	Escherichia coli	cfu/100mL		

1: In-field non-NATA Accredited analysis also permitted.

8. The Licence Holder must monitor surface water for concentrations of the parameters listed in Table 5:

(a) at the corresponding sampling point;

(b) for each corresponding parameter in the corresponding units;

(c) at no less than the corresponding frequency; and

(d) for the corresponding averaging periods.

Table 5: Surface water monitoring

Sampling Point	Parameter	Units	Frequency	Averaging period
SW_1, SW_D1, SW_D2, SW_D4, SW_LS2 and SW_LS3	pH[1]	-	Monthly from May to November each year (when surface water present)	Spot sample
	Electrical conductivity[1]	µS/cm		
	Redox potential[1]	Eh		
	Ammonium (NH_4-N)	mg/L		
	Nitrate + nitrite – nitrogen			
	Total biochemical oxygen demand			
	Total dissolved solids			
	Total metals (aluminium, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, nickel, potassium, zinc)			
	Total nitrogen			

Sampling Point	Parameter	Units	Frequency	Averaging period
	Reactive phosphorus			
	Total phosphorus			
	Total suspended solids			
	Boron			
	Caffeine			
	Sucralose			
	Escherichia coli	cfu/100mL		
	Enterococci			

Note 1: In-field non-NATA Accredited analysis also permitted.

Record-keeping

9. 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 maintenance of infrastructure required to ensure that it is kept in good working order in accordance with Condition 4 of this Licence;

(c) the installation and maintenance of infrastructure required to ensure that it is kept in good working order in accordance with Condition 6 of this Licence;

(d) monitoring undertaken in accordance with Conditions 5, 6, 7, 8 and 9 of this Licence; and

(e) complaints received under Condition 11 of this Licence.

In addition, the Books must:

(f) be legible;

(g) if amended, be amended in such a way that the original and subsequent amendments remain legible and are capable of retrieval;

(h) be retained for at least 3 years from the date the Books were made; and

(i) be available to be produced to an Inspector or the CEO.

10. The Licence Holder must record the number and details of any complaints received by the Licence Holder relating to its obligations under this Licence and its compliance with Part V of the EP Act at the Premises, and any action taken by the Licence Holder in response to the complaint. Details of complaints must include:

(a) an accurate record of the concerns or issues raised, for example a copy of any written complaint or a written note of any verbal complaints made;

(b) the name and contact details of the complainant, if provided by the complainant;

(c) the date of the complaint; and

(d) the details and dates of the actions taken by the Licence Holder in response to the complaints.

Reporting

11. The Licence Holder must submit to the CEO, no later than 1 October in each year an AACR indicating the extent to which the Licence Holder has complied with the Conditions in this Licence for the preceding Annual Period.

12. The Licence Holder must submit to the CEO, no later than 1 October in each year an Environmental Report that contains requirements for the corresponding Condition specified in Table 6.

Table 6: Environmental report requirements.

Condition	Requirement
Condition 5	• a summary of all monthly sewage input volumetric monitoring data for the annual period presented in table format; and • a summary of any waste accepted from a Carrier at the premises for the annual period
Condition 6	• an assessment of reliability of field procedures and laboratory results; • 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; • an interpretive summary and assessment of the results against relevant assessment levels, with rational provided to justify why assessment levels have been assigned; • an interpretive summary and assessment of results against previous monitoring results; and • trend graphs to provide a graphical representation of historical results and to support the interpretive summary.
Condition 7	• an assessment of reliability of field procedures and laboratory results; • 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; • 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); • an interpretive summary and assessment of the results against relevant assessment levels, with rational provided to justify why assessment levels have been assigned; • an interpretive summary and assessment of results against previous monitoring results; and • trend graphs to provide a graphical representation of historical results and to support the interpretive summary.

Condition	Requirement
Condition 8	• an assessment of reliability of field procedures and laboratory results; • 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; • a diagram with aerial image overlay showing all monitoring locations (relevant site features including discharge points and other potential sources of contamination must also be shown); • an interpretive summary and assessment of the results against relevant assessment levels, with rational provided to justify why assessment levels have been assigned; • an interpretive summary and assessment of results against previous monitoring results; and • trend graphs to provide a graphical representation of historical results and to support the interpretive summary.

13. The Licence Holder must comply with a Department Request, within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

Definitions

In this licence, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
AACR	means Annual Audit Compliance Report as defined within the *Guideline: Annual Audit Compliance Reports* and *Guidance Statement: Publication of Annual Audit Compliance Reports*
Amendment Notice	means an amendment granted under section 59 of the EP Act in accordance with the procedure set out in section 59B of the EP Act
Annual Period	means a 12 month period commencing from 1 July until 30 June in the following year
AS1289	means the Australian Standard AS1289 *Method for testing soil for engineering purposes*
AS1726-1993	means the Australian Standard AS1726 *Geotechnical site investigations*
AS/NZS 2031	means the Australian Standard AS/NZS 2031 *Selection of containers and preservation of water samples for microbiological analysis*
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of ground waters*
ASTM D5092-04(2010)e1	means the Australia Standard ASTM D5092-04(2010)e1 *Standard practice for design and installation of groundwater monitoring wells*
Books	has the same meaning given to that term under the EP Act
Carrier	has the same meaning given to that term under the Controlled Waste Regulations
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au

Term	Definition
Condition	means a condition to which this Licence is subject under section 62 of the EP Act
Controlled Waste Regulations	means the *Environmental Protection (Controlled Waste) Regulations 2004* (WA)
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the EP Act
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Licence Holder in writing and sent to the Licence Holder's address for notifications, as described at the front of this Licence, in relation to: (a) compliance with the EP Act or this Licence; (b) the Books or other sources of information maintained in accordance with this Licence; or (c) the Books or other sources of information relating to Emissions from the Premises
Discharge	has the same meaning given to that term under the EP Act
Discharge Point L1	means the treated sewage discharge point from the Premises approved under this Licence, being the discharge flume from the tertiary pond to the Kersley Road Reserve defined in the Premises Map in Schedule 1 of the Licence
DWER	Department of Water and Environmental Regulation
Emission	has the same meaning given to that term under the EP Act
Environmental Harm	has the same meaning given to that term under the EP Act
EP Act	means the *Environmental Protection Act 1986* (WA)
EP Regulations	means the *Environmental Protection Regulations 1987* (WA)
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act
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 Conditions
Licence Holder	refers to the occupier of the premises being the person to whom this Licence has been granted, as specified at the front of this Licence

Term	Definition
Material Environmental Harm	has the same meaning given to that term under the EP Act
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
Pollution	has the same meaning given to that term under the EP Act
Premises	refers to the premises to which this Licence applies, as specified at the front of this Licence and as shown on the map in Schedule 1 to this Licence
Prescribed Premises	has the same meaning given to that term under the EP Act
Primary Activities	refers to the Prescribed Premises activities listed on the front of this Licence at the locations shown in Schedule 1
Serious Environmental Harm	has the same meaning given to that term under the EP Act
Sewage Treatment System	means the system for treating sewage at the Premises that comprises of the two parallel primary ponds, a secondary pond, a tertiary pond and treated sewage discharge flume being Discharge Point L1
Treated Sewage	means sewage that has been treated by the Sewage Treatment System
Unreasonable Emission	has the same meaning given to that term under the EP Act
Waste	has the same meaning given to that term under the EP Act

END OF CONDITIONS

Schedule 1: Maps

Premises map

The Premises is shown in the map below. The red line depicts the boundary of the Prescribed Premises. The Discharge Point L1 is depicted by the red dot. The Slippery Lake Class A nature reserve depicted in light blue green shading.

Figure 1: Premises location and siting

Premises plan

The Premises infrastructure is depicted in the plan below. The orange lines depict pipes, arrows depict the direction of sewage/ treated sewage flow, the green line depicts the sludge drying hardstand, the blue lines depict the boundary of the ponds and the pink dot depicts the location of copper dosing.

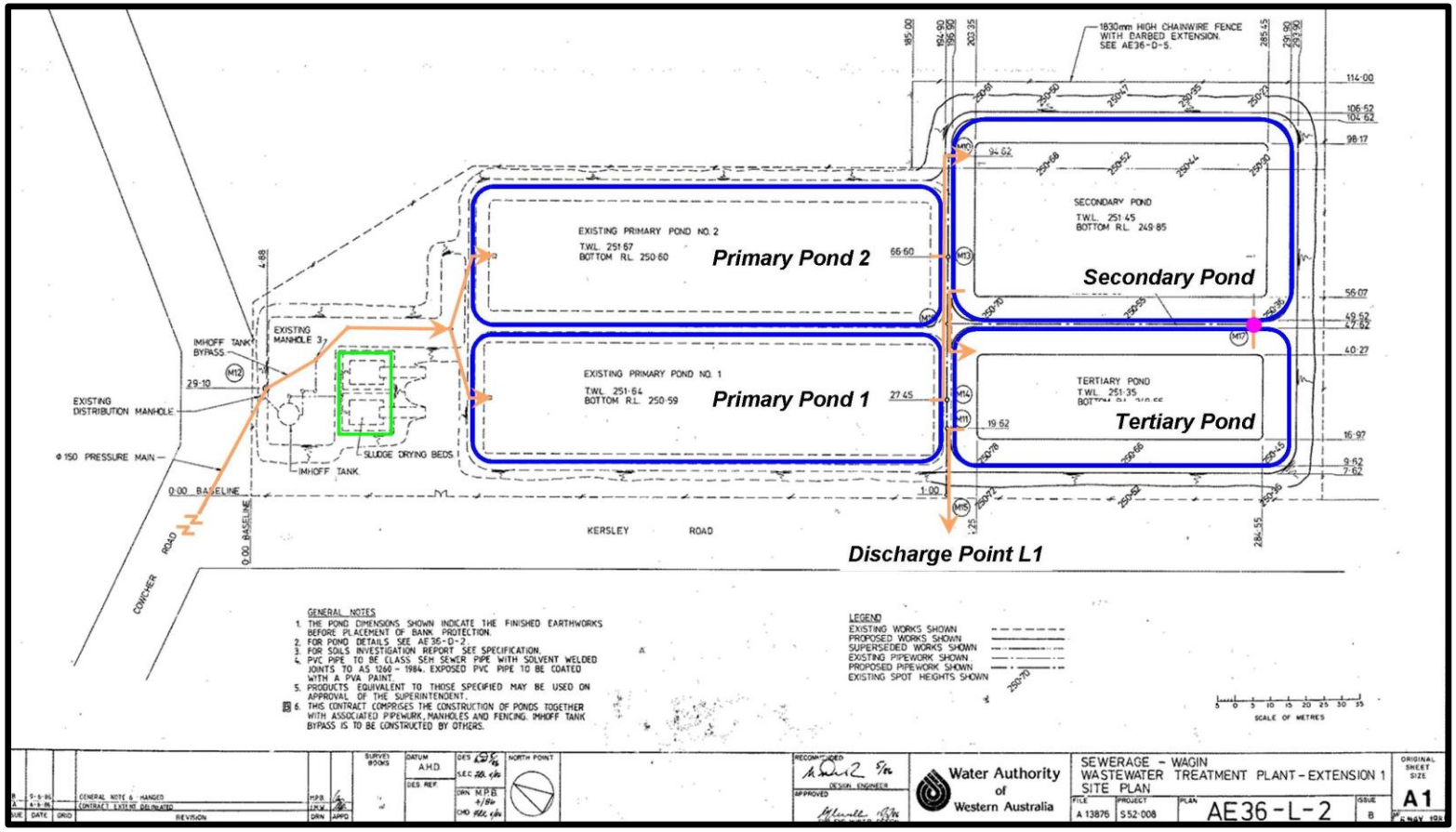

Figure 2: Premises layout

Map of groundwater monitoring network

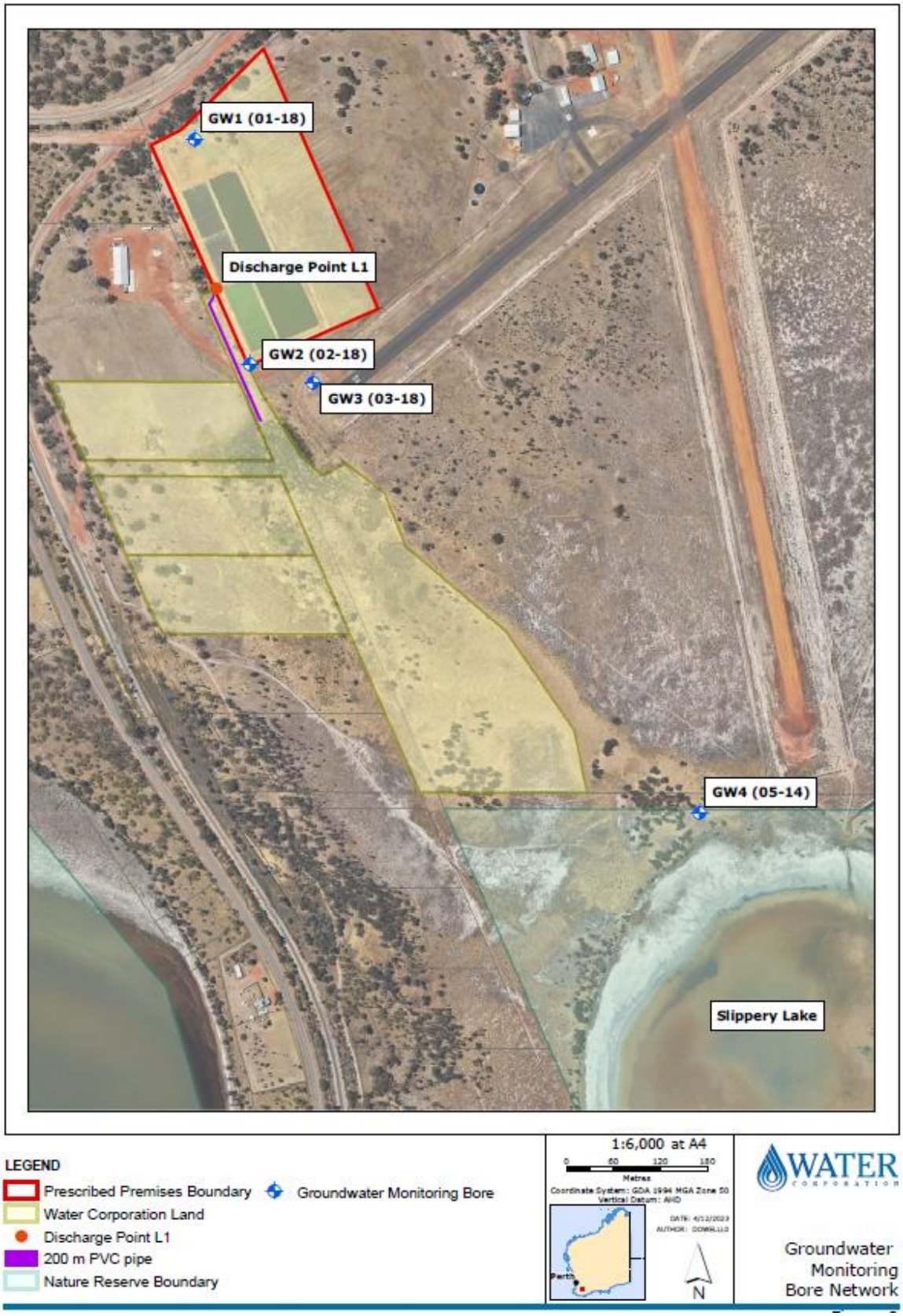

Figure 3: Groundwater monitoring bore network

Map of surface water monitoring network

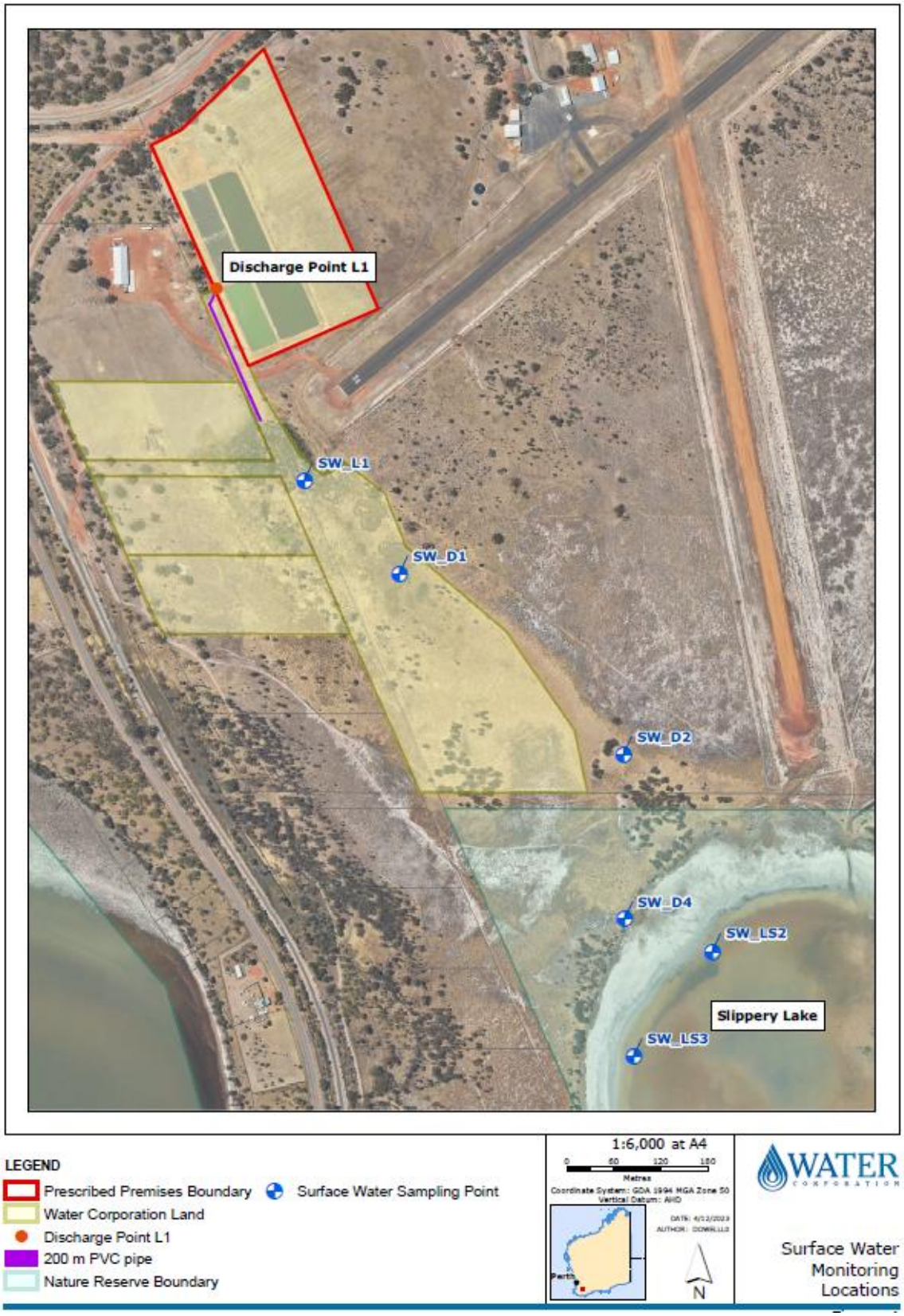

Figure 4: Surface water monitoring locations