



Licence number	L6426/1991/14
Licence holder	Water Corporation
Registered business address	John Tonkin Water Centre 629 Newcastle Street Leederville WA 6007
DWER file number	DWERVT15814
Duration	01/12/2021 to 30/11/2041
Date of issue	22/08/2023
Date of amendment	05/12/2024
Premises details	Esperance Wastewater Treatment Plant Jetty Road CHADWICK WA 6450 Legal description - Lot 500 on Plan 407029 Part of Reserve 34464 As depicted in Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production 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	Not more than 2,637 m ³ per day

This licence is granted to the licence holder, subject to the attached conditions, on 5 December 2024, by:

Abbie Crawford
Manager, Waste Industries

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

Licence history

Date	Reference number	Summary of changes
25/11/2010	L6426/1991/12	Licence re-issue
31/10/2013	L6426/1991/13	Licence re-issue
26/03/2015	L6426/1991/13	Licence amendment to REFIRE format, addition of overtopping/freeboard management improvement condition and introduction of inlet screen.
29/04/2016	L6426/1991/12	Amendment to extend the licence duration.
20/10/2017	L6426/1991/13	Amendment Notice 1 to install a penstock structure as per improvement plans under Condition 4.1.1.
13/05/2021	L6426/1991/13	Licence amendment for replacing an aged 11 kW aerator in the primary treatment pond with a new 22 kW aerator.
11/11/2021	L6426/1991/14	Administrative licence renewal for twenty years.
6/04/2023	L6426/1991/14	Amendment for the replacement of an upgradient groundwater monitoring bore
22/08/2023	L6426/1991/14	Licence amendment to the submission dates for the Environmental Report and Annual Audit Compliance Report (AACR).
05/12/2024	L6426/1991/14	Amendment for the replacement of a downgradient groundwater monitoring bore

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:

General

1. The Licence Holder shall operate and maintain all flow meters and outflow meters to the manufacturer’s specification or any relevant and effective internal management system.
2. The Licence Holder shall immediately recover or remove and dispose of spills of sewage and sewage sludge whether inside or outside an engineered containment system.
3. The Licence Holder must take all reasonable and practicable measures to prevent stormwater run-off becoming contaminated by the activities and operations undertaken at the premises.

Premises operation

4. The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit, and/or target in this licence.
5. The Licence Holder shall only allow waste to be accepted on to the premises if:
 - (a) it is of a type listed in Table 1; and
 - (b) the quantity accepted is below any limit listed in Table 1; and
 - (c) it meets any specification listed in Table 1

Table 1: Waste acceptance

Waste	Waste code ¹	Quantity limit	Specification
Sewage	K130	2,637 m ³ /day cumulative volume	Accepted through sewer inflow(s)
			Tankered into the premises and discharged into Primary Pond 1.

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

6. The Licence Holder shall ensure that the wastes accepted onto the premises are only subjected to the process(es) set out in Table 2 and in accordance with any process requirements described in that table.

Table 2: Waste processing

Waste type	Process	Process requirements
Sewage	Physical, biological and chemical treatment	Treatment of sewage waste shall be targeted at or below the treatment capacity of 2,637 m ³ /day.
Sewage sludge	Storage and disposal	<ul style="list-style-type: none"> • Collected leachate to be returned to treatment ponds. • Removal of sludge and biosolids in accordance with the document Western Australian guidelines for biosolids management, Department of Environment and Conservation (December 2012 or updated version), or to a licensed landfill facility.

7. The Licence Holder shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 3.

Table 3: Containment infrastructure

Vessel or compound	Material	Requirements
Inlet works (Drum Screen)	Grit and screenings	Stored in a sealed bin which is surrounded by a bunded hardstand area which returns sludge leachate to the start of the treatment process.
Primary Treatment Pond	Wastewater	Lined with compacted in-situ soils.
Secondary Treatment Pond	Wastewater	Lined with compacted in-situ soils
Evaporation /infiltration ponds	Treated wastewater	Unlined.
Sewage sludge compound	Sewage sludge	Temporary or permanent infrastructure to consist of a bunded hardstand or lined area capable of preventing surface run-off of leachate and sludge and which includes a leachate collection system.

8. The Licence Holder shall manage all wastewater treatment, storage and infiltration ponds such that:
- (a) overtopping of the ponds does not occur;
 - (b) the integrity of the containment infrastructure is maintained;
 - (c) trapped overflows are maintained on the outlet of ponds to prevent carry-over of surface floating matter; and
 - (d) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.
9. The Licence Holder shall manage the infiltration of treated wastewater such that:
- (a) sludges are removed from the base of the pond to maintain the infiltration performance; and
 - (b) groundwater mounding does not rise to within one metre of the standard ground level at the monitoring bores identified in Table 7 (excluding monitoring bore 7/01).
10. The Licence Holder shall:
- (a) implement security measures at the site to prevent as far as is practical unauthorised access to the site; and
 - (b) undertake regular inspections of all security measures and repair damage as soon as practicable; and
 - (c) ensure the entrance gates are closed and locked when the site is closed or unmanned.

Emissions

11. The Licence Holder shall ensure that where waste is emitted to land from the emission points in Table 4 and identified on the maps of emission points in Schedule 1: Maps it is done so in accordance with the conditions of this licence.

Table 4: Emissions to land

Emission point reference and location on Maps of emissions points	Description	Source including abatement
Infiltration Pond 1	Infiltration of treated wastewater	Treated wastewater pumped from Secondary Treatment Pond via L1
Infiltration Pond 2		
Infiltration Pond 4		
Infiltration Pond 5		
M3	Treated wastewater discharge point to WWTP#2 Infiltration Ponds	
Diversion Pipe	Treated wastewater discharge point to Infiltration Pond 3	
Infiltration Pond 3	Infiltration of treated wastewater	Treated wastewater from the: <ul style="list-style-type: none"> (i) Secondary Treatment Pond spillway during emergency events or operational malfunction, where the freeboard of the Primary and Secondary Treatment Ponds is compromised; or (ii) Diversion Pipe, during infiltration investigations, where the emission of treated wastewater does not exceed 20% of the holding capacity of Infiltration Pond 3.

12. The Licence Holder shall ensure that odour emitted from the premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the Premises.

Monitoring – general

13. The Licence Holder shall ensure that:
- (a) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
 - (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11
 - (c) all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
 - (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

14. The Licence Holder shall ensure that:
 - (a) monthly monitoring is undertaken at least 15 days apart;
 - (b) bimonthly monitoring is undertaken at least 30 days apart; and
 - (c) quarterly monitoring is undertaken at least 45 days apart.
15. The Licence Holder shall 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.
16. The Licence Holder shall, 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 – emissions to land

17. The Licence Holder shall undertake the monitoring in Table 5 according to the specifications in that table.

Table 5: Monitoring of emissions to land

Emission point reference	Monitoring point reference	Parameter	Units	Average period	Frequency
L1	L1 – Treated Wastewater Sample Point (refer to Figure 1 in Schedule 1)	pH ¹	pH units	Spot sample	Monthly
		Total dissolved solids	mg/L		
		Total suspended solids	mg/L		
		Biological Oxygen Demand	mg/L		
		Total nitrogen	mg/L		
		Ammonia-nitrogen	mg/L		
		Nitrate + Nitrite-nitrogen	mg/L		
		Total Phosphorus	mg/L		
		<i>Escherichia coli</i> ²	cfu/100mL		

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

Note 2: Actual units are to be reported except where the result is greater than the highest detectable level of 24,000 cfu/100mL. In this case reporting the highest detectable level is permitted.

Monitoring – inputs and outputs

18. The Licence Holder shall undertake the monitoring in Table 6 according to the specifications in that table.

Table 6: Monitoring of inputs and outputs

Input/Output	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Sewage inflow	Flow meter	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous
Treated wastewater discharged to Infiltration Pond 1, Infiltration Pond 2, Infiltration Pond 4 and Infiltration Pond 5	Outflow meter (M1) (refer to Figure 1 in Schedule 1)	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous
Treated wastewater discharged from Secondary Treatment Pond overflow spillway to Infiltration Pond 3	N/A	Volumetric flow rate (cumulative) – calculated via estimation, gauge work or flow meter	m ³ /day	Monthly	Continuous
Treated wastewater discharged from Diversion Pipe to Infiltration Pond 3	Diversion Pipe (refer to Figure 1 in Schedule 1)				
Treated wastewater discharged to Shire of Esperance Recycled Water Tanks	Outflow meter (M2) (refer to Figure 1 in Schedule 1)	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous

Monitoring – groundwater

19. The Licence Holder shall undertake the monitoring in Table 7 according to the specifications in that table and record and investigate results that do not meet any target specified.

Table 7: Monitoring of groundwater quality

Monitoring point reference and location	Parameter	Units	Average period	Frequency
3/85, 4/85, 2/00, 3/00, 4/00, 5/00, 6/00, 7/00, 7/22S, 1/01, 1/02, 2/20s, 3/01, 4/01, 5/01, 6/01 and 7/01 (refer to Figure 1 and Figure 2 in Schedule 1: Maps)	Standing water level	m(AHD)	Spot sample	Quarterly
	pH ¹	pH units		
	Total dissolved solids	mg/L		
	Total nitrogen	mg/L		
	Ammonium-nitrogen	mg/L		
	Nitrate + Nitrite-nitrogen	mg/L		
	Total Phosphorus	mg/L		
	<i>Escherichia coli</i> ²	cfu/100mL		

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

Note 2: Actual units are to be reported except where the result is greater than the highest detectable level of 24,000 cfu/100mL. In this case reporting the highest detectable level is permitted.

Records and reporting

20. All information and records required by the Licence Holder shall:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - (c) be made available to an inspector or the CEO as required.
 - (d) except for records listed in Condition 20(e) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - (e) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.

Department of Water and Environmental Regulation

- 21.** The Licence Holder shall 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:
- the name and contact details of the complainant, (if provided);
 - the time and date of the complaint;
 - the complete details of the complaint and any other concerns or other issues raised; and
 - the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
- 22.** The Licence Holder must:
- 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.
- 23.** The licence holder must:
- prepare an environmental report that provides information in accordance with Table 8 for the preceding annual period, and
 - submit the environmental report to the CEO by 1 October each year.

Table 8: Environmental Report

Condition or table (if relevant)	Parameter	Format or form
-	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
Condition 4	Summary of any treatment capacity target exceedances and any action taken.	
Condition 17, Table 5 and Condition 18, Table 6	Monitoring of emissions to land.	
	Contaminant loading (kg/day and kg/ha/day – monthly average and total annual loading kg/year and kg/ha/yr) to infiltration ponds of parameters monitored in Table 6 (except pH and <i>E.coli</i>)	
Condition 18, Table 6	Monitoring of inputs and outputs	
	Methodology and calculations used to estimate the daily volumetric flow rate of treated wastewater pumped to evaporation basins and results of those calculations.	
Condition 19, Table 7	Monitoring of ambient groundwater quality.	
	An explanation of monitoring data: <ol style="list-style-type: none"> with respect to the environmental impacts of the project; in comparison with past monitoring data collected over the previous three years; and in comparison with known relevant Australian Standards and guidelines. 	
Condition 21	Complaints summary	
Condition 22	Compliance	Annual Audit Compliance Report (AACR)

Department of Water and Environmental Regulation

- 24.** The Licence Holder shall ensure that the Environmental Report also contains:
- (a) any relevant process, production or operational data recorded under condition 18; and
 - (b) an assessment of the information contained within the report against previous monitoring results and licence limits and/or targets.
- 25.** The Licence Holder shall ensure that the parameters listed in Table 9 are notified to the CEO and in accordance with the notification requirements of the table.

Table 9: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
-	Taking process equipment offline for maintenance that may result in increased odour emissions	No less than 72 hours in advance of works	None specified
-	Removal of sewage sludge from a treatment pond, wastewater treatment vessel, sewage sludge storage pond or Geobag.	No less than 14 days in advance of works ²	None specified
17	Calibration report	As soon as practicable.	None specified

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

Note 2: The following information shall be included: (i) when desludging is proposed to occur, (ii) the desludging method, (iii) action to mitigate potential odour impacts, and (iv) the method by which the community will be advised of the desludging activities.

Definitions

In this licence, the terms in Table 10 have the meanings defined.

Table 10: Definitions

Term	Definition
AHD	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).
AS/NZS 2032	means the Australian Standard AS/NZS 2031 <i>Selection of containers and preservation of water samples for microbiological analysis</i> .
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 <i>Water Quality – Sampling – Guidance of 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> .
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
averaging period	means the time over which a limit or target is measured or a monitoring result is obtained.
bi-monthly	means the 6 inclusive periods from 1 July to August, 1 September to 31 October, 1 November to 31 December and in the following year, 1 January to 28 February, 1 March to 30 April, 1 May to 30 June.
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
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994 (WA)</i> and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
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>

Term	Definition
freeboard	freeboard means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
geobag	means a geotextile dewatering bag that allows solids to dewater over time while containing the solid component.
hardstand	means a surface with a permeability of 10^{-9} metres/second or less.
leachate	means liquid released by or water that has percolated through waste and which contains some of its constituents.
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.
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.
process equipment	means any wastewater or sludge containment infrastructure or wastewater treatment vessel.
quarterly	means the four 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.
shut-down	means the period when plant or equipment is brought from normal operating conditions to inactivity.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
start-up	means the period when plant or equipment is brought from inactivity to normal operating conditions.
waste	has the same meaning given to that term under the EP Act.
WWTP#2	means the two infiltration ponds located on Lot 2 on Plan 22578, Wylie Bay Road as shown in Figure 2.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

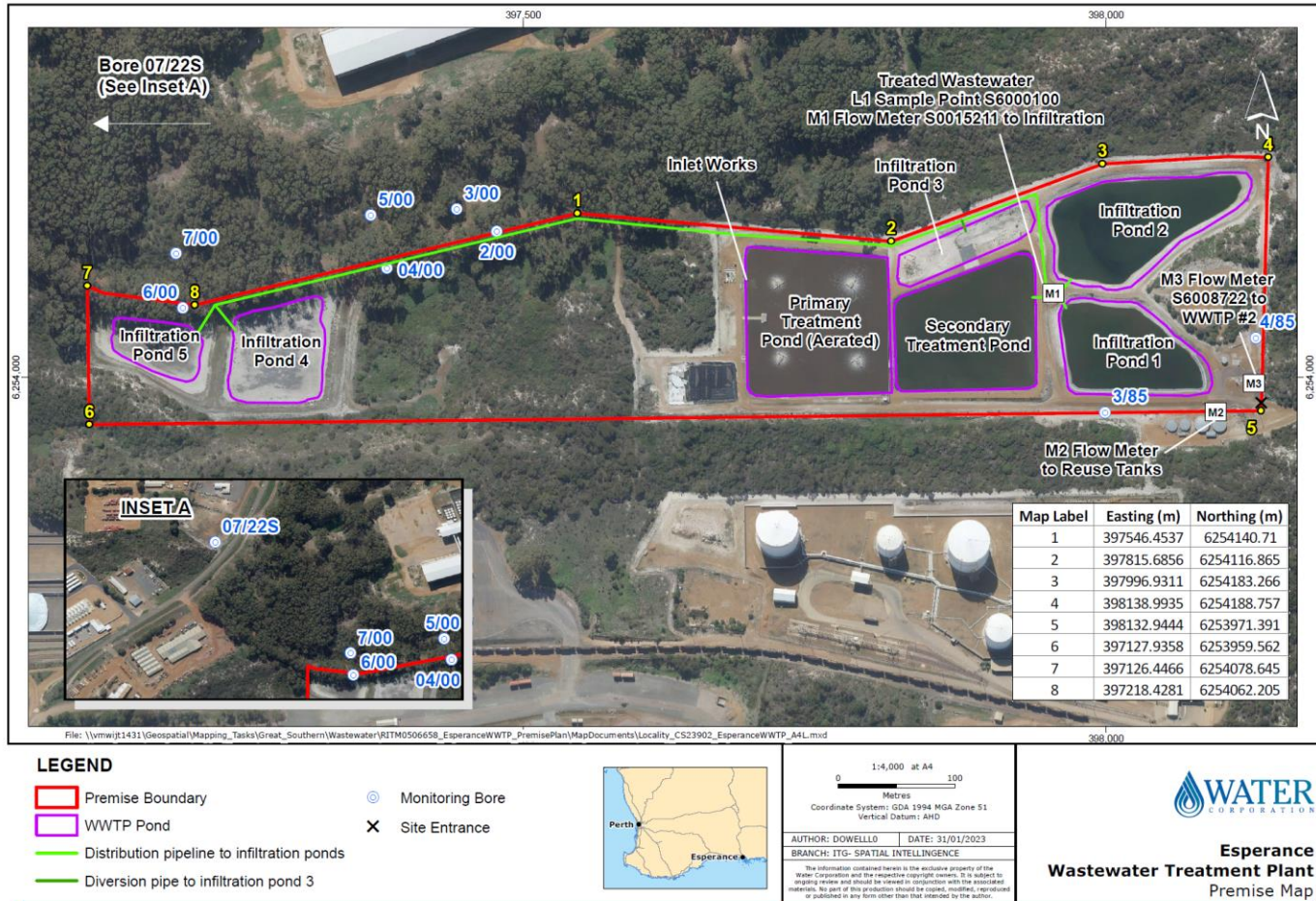
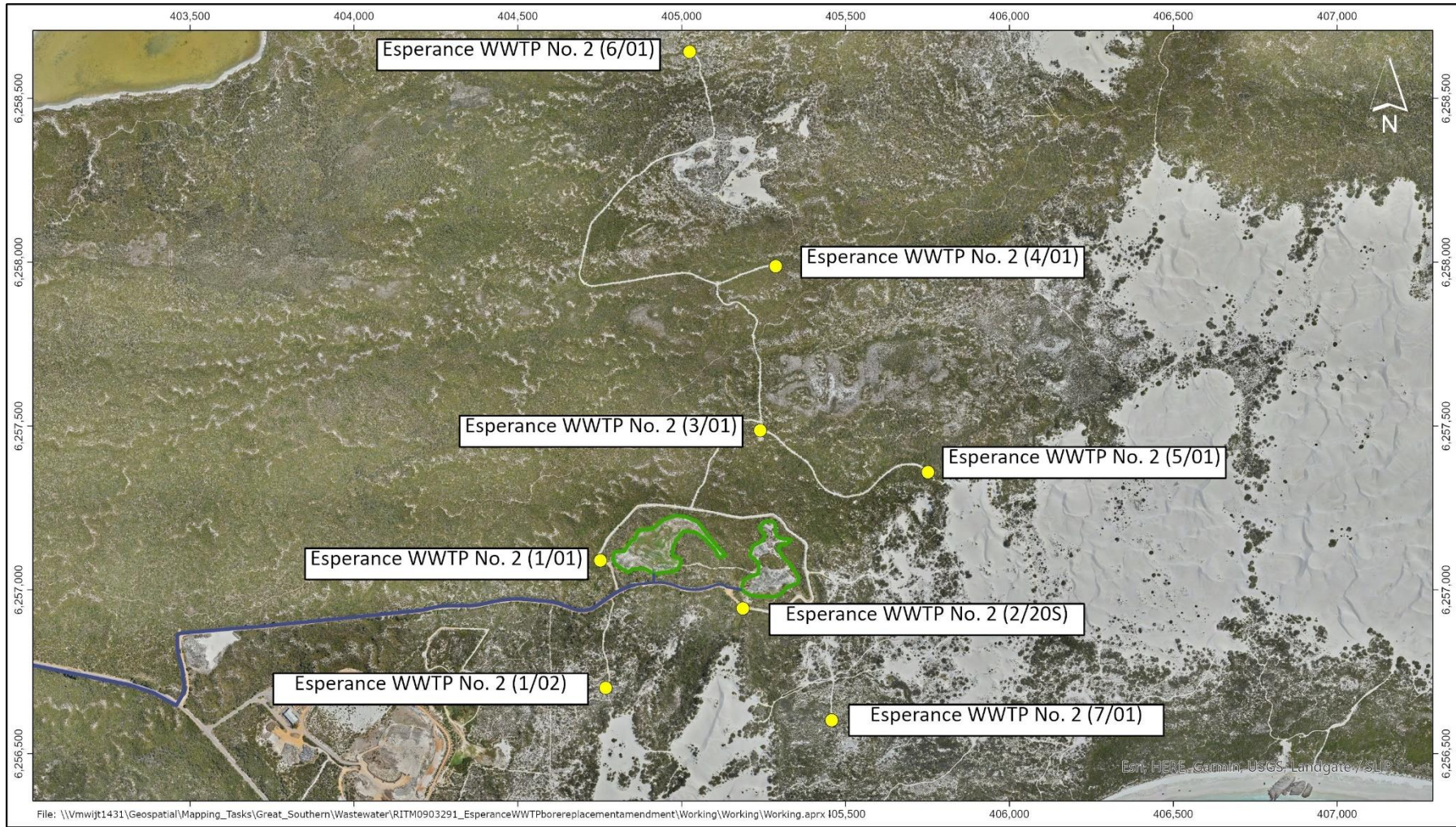


Figure 1: Prescribed premises boundary, layout of the premises and location of monitoring points



LEGEND

- Observation Bore
- Infiltration Lagoons
- Gravity Main**
- Treated Wastewater



1:16,000 at A4

0 100 200 300 400 500
Metres

Coordinate System: GDA 1994 MGA Zone 51
Vertical Datum: AHD

AUTHOR: KOOCO	DATE: 11/11/2024
BRANCH: INFORMATION & TECHNOLOGY	

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Esperance WWTP
Bore Locations

Figure 2: Groundwater monitoring locations

L6426/1991/14 (Amended 05/12/2024)