



<b>Licence number</b>	L6271/1991/10
<b>Licence holder</b>	Water Corporation
<b>Registered business address</b>	John Tonkin Water Centre 629 Newcastle St Leederville WA 6007
<b>DWER file number</b>	2011/009901-1
<b>Duration</b>	31/10/2013 to 31/10/2028
<b>Date of issue</b>	31/10/2013
<b>Date of amendment</b>	29/08/2023
<b>Premises details</b>	Fitzroy Crossing Wastewater Treatment Plant Crown Reserve 40827 Lot 36 Great Northern Highway FITZROY CROSSING WA 6765 Being Lot 36 on Plan 188144 as depicted in Schedule 1.

<b>Prescribed premises category description</b> (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	<b>Assessed production / design capacity</b>
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.	700 m <sup>3</sup> per day

This licence is granted to the licence holder, subject to the attached conditions, on 29 August 2023, by:

Sarah Cross

**A/SENIOR ENVIRONMENTAL OFFICER  
INDUSTRY REGULATION**

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

[Licence: L6271/1991/10](#)

## Licence history

Date	Reference number	Summary of changes
08/10/2000	L6271/1991/3	New licence application
08/10/2001	L6271/1991/4	Licence re-issue
08/10/2002	L6271/1991/5	Licence re-issue
08/10/2003	L6271/1991/6	Licence re-issue
08/10/2004	L6271/1991/7	Licence re-issue
01/11/2006	L6271/1991/8	Licence re-issue
01/11/2008	L6271/1991/9	Licence re-issue
01/11/2013	L6271/1991/10	Licence re-issue
17/03/2014	W5315/2012/1	Works approval to allow construction of second 18ML evaporation / infiltration pond
19/03/2015	L6271/1991/10	Licence amendment to REFIRE format and inclusion of additional evaporation / infiltration pond
10/10/2018	L6271/1991/10	Amendment Notice 1 to extend the licence expiry date to 31/10/2028
29/08/2023	L6271/1991/10	Amendment to alter the due date for the environmental report and annual audit compliance report, to be 1 October annually.

## 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:

1. The licence holder must operate and maintain the pH meter, inflow meter and all monitoring bores 1/10, 2/10, 3/10, 4/10, 5/10, 6/10, 7/10, 8/10, 9/10 and 10/10 to the manufacturer's specification.
2. The licence holder must immediately recover or remove and dispose of spills of sewage and sewage sludge 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 must only allow waste to be accepted on to the Premises if:
  - (a) it is of a type listed in Table 1;
  - (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	Quantity Limit	Specification <sup>1</sup>
Sewage – waste from the reticulated sewerage system	None specified	Accepted through sewer inflow(s) only

5. 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 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 700 m <sup>3</sup> /day.
Sewage sludge	Storage and disposal	Removal and disposal of sludge and biosolids in accordance with the document Western Australian guidelines for biosolids management (December 2012 or updated version), or to a licensed facility for final disposal.  Sludge leachate to be disposed of via evaporation or collected and returned to wastewater treatment ponds.

6. The licence holder must 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
Pond 1 (facultative pond)	Wastewater	Clay lined to achieve a permeability of less than $10^{-9}$ m/s or equivalent
Pond 2 (maturation pond)	Wastewater	Lined with compacted in-situ soils
Pond 3 (maturation pond)	Wastewater	Lined with compacted in-situ soils
Evaporation / infiltration ponds	Treated wastewater	Unlined
Sewage sludge compound	Sewage sludge	Temporary or permanent infrastructure to consisting of a bunded hardstand or lined area (lined to achieve a permeability of less than $10^{-9}$ m/s or equivalent), capable of preventing surface run-off of leachate and sludge and which includes a leachate collection system

7. The licence holder must manage all wastewater treatment ponds such that:
- overtopping of the ponds does not occur, except as a result of an extreme rainfall event;
  - a freeboard equal to, or greater than, 300 mm is targeted;
  - the integrity of the containment infrastructure is maintained;
  - trapped overflows are maintained on the outlet of ponds to prevent carry-over of surface floating matter;
  - vegetation and floating debris (emergent or otherwise) are prevented from encroaching onto pond surfaces or inner pond embankments (with the exception of duckweed (*Lemna*) on wastewater treatment and infiltration ponds; and
  - visual monitoring of duckweed coverage in conjunction with annual treatment efficiency monitoring is undertaken to ensure duckweed is not inhibiting the treatment efficiency of the plant.
8. The licence holder must manage the infiltration of treated wastewater such that sludges are removed from the base of the infiltration ponds to maintain the infiltration performance.

## Emissions

9. The licence holder must ensure that where waste is emitted to land from the emission points in Table 4 and identified on the map of emission points in Schedule 1 (Figure 2), it is done so in accordance with the conditions of this Licence.

**Table 4: Emission to land**

Emission point reference	Emission point reference on Map of emission points	Description	Source including abatement
L1	Infiltration Pond 1	Infiltration of treated wastewater	Treated wastewater flow from the Tertiary Pond
L2	Infiltration Pond 2	Infiltration of treated wastewater	Treated wastewater flow from the Tertiary Pond
L3	Infiltration Pond 1 Spillway	Treated wastewater discharged to the environment	Treated wastewater flow from the Infiltration Pond 1 and 2

10. The licence holder must 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

11. The licence holder must ensure that:
- all wastewater sampling is conducted in accordance with AS/NZS 5667.10 (unless indicated otherwise in the relevant table);
  - all groundwater sampling is conducted in accordance with AS/NZS 5667.11 (unless indicated otherwise in the relevant table);
  - all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
  - all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured (unless indicated otherwise in the relevant table).
12. The licence holder must ensure that
- quarterly monitoring is undertaken at least 45 days apart, and
  - monthly monitoring is undertaken in each monthly period such that there are at least 15 days apart.
13. 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.
14. 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.

15. The Licensee shall licence holder must 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
M1	Final effluent sample point	pH <sup>1</sup>	pH units	Spot Sample	Quarterly
		Biochemical Oxygen Demand	mg/L		
		Total Dissolved Solids			
		Total Suspended Solids			
		Nitrate + Nitrite-nitrogen			
		Ammonium-nitrogen			
		Total Nitrogen			
		Total Phosphorous			
<i>Escherichia coli</i> <sup>2</sup>	cfu/100 mL				
L1 and L2	By mass balance calculation of overflow from Tertiary Pond 3 to Infiltration Ponds 1 and 2	Hydraulic loading	m <sup>3</sup> /ha/d	Monthly	Monthly
		Load of Total Nitrogen	kg/ha/d	Annual	Quarterly
		Load of Total Phosphorus			
L3	Infiltration Pond 1 Spillway overflow into the environment	pH <sup>1</sup>	-	Spot sample	Within 24 hours of overflow and every 14 days thereafter until overflow ceases
		Biochemical Oxygen Demand	mg/L		
		Total Dissolved Solids			
		Total Suspended Solids			
		Total Nitrogen			
		Total Phosphorus			
		<i>Escherichia coli</i> <sup>2</sup>	cfu/100 mL		
		Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Daily	Daily when overflowing

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

Note 2: Actual units above 1 cfu/100mL are to be reported except where the result is greater than the highest detectable level of 24,000 cfu/100mL. In this case the reporting of the highest detectable level is permitted.

16. The licence holder must 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 (and location)	Parameter	Units	Average period	Frequency
Sewage Inflows	Mass balance calculation	Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Monthly	Continuous
Treated wastewater discharged to on-site infiltration ponds	By mass balance calculation of overflow from Tertiary Pond 3 to Infiltration Ponds 1 and 2- M1	Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Monthly	Quarterly

17. The licence holder must 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 ambient groundwater quality**

Monitoring Point reference and location	Parameter	Target	Units	Averaging period	Frequency	
1/10; 2/10; 3/10; 4/10; 5/10; 6/10; 7/10; 8/10; 9/10; and 10/10.	Standing water level	-	m (AHD) and mBGL	Spot sample	Quarterly	
	pH <sup>1</sup>	-	pH units			
	Biological Oxygen Demand	-	mg/L			
	Total Dissolved Solids	-				
	Total Suspended Solids	-				
	Nitrate + Nitrite-nitrogen	-				
	Ammonium-nitrogen	-				
	Total Nitrogen	-				
	Total Phosphorus	-				
	<i>Escherichia coli</i> <sup>2</sup>	-				cfu/100mL



1/10; 2/10; 7/10; 8/10; 9/10; and 10/10.	Nitrate + Ammonium N	5 mg/L	mg/L	Spot sample	Quarterly
	Total Phosphorus	1 mg/L			

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

Note 2: Actual units above 1 cfu/100mL are to be reported except where the result is greater than the highest detectable level of 24,000 cfu/100mL. In this case the reporting of the highest detectable level is permitted.

## Records and reporting

18. The licence holder must implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.
19. 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 of October each year.
20. The licence holder must:
  - (a) prepare an environmental report that provides information in accordance with Table 8 for the preceding annual period, and
  - (b) submit the environmental report to the CEO by 1 of October each year.

**Table 8: Environmental Report**

Condition or table (if relevant)	Parameter	Format or form <sup>1</sup>
-	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
Table 1	Summary of any treatment capacity target exceedances and any action taken.	None specified
Condition 7	Summary of any freeboard target exceedances and any action taken.	None specified
Condition 7	Summary of visual monitoring program for duckweed coverage, and relationship to annual treatment efficiency.	None specified
Table 5	Monitoring of emissions to land.	None specified

	Contaminant loading (kg/day and kg/ha/day monthly average and total annual loading kg/yr and kg/ha/yr) to land of parameters monitored in Table 3.5.1 (except pH and <i>E.coli</i> ).	None specified
Table 6	Monitoring of inputs and outputs.	None specified
	Methodology and calculations used to estimate the daily volumetric flow rate of treated wastewater pumped to evaporation basins and results of those calculations.	None specified
Table 7	Monitoring of ambient groundwater quality.	None specified
	Summary of any ambient groundwater quality target exceedances and any action taken.	Form ET1
Condition 19	Compliance	Annual Audit Compliance Report (AACR)
Condition 18	Complaints summary	None specified

21. The licence holder must ensure that the Environmental Report also contains an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.
22. The licence holder must submit the information in Table 9 to the CEO at the Contact Address according to the specifications in that table.

**Table 9: Non-annual reporting requirements**

Condition or Table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form1
Table 7	Target exceedances	Quarterly	28 calendar days	Form ET1
Table 5	Biochemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, Total Nitrogen, Total Phosphorus and <i>Escherichia coli</i>	Within 24 hours of the overflow and every 14 days thereafter until the flow ceases	Within 21 days after overflow sample events	None specified
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the licence holder from third parties

Note 1: Forms are in Schedule 2

- 23.** The licence holder must ensure that the parameters listed in Table 10 are notified to the CEO at the Contact Address and in accordance with the notification requirements of the table.

**Table 10: Notification requirements**

Condition or table (if relevant)	Parameter	Notification requirement <sup>1</sup>	Format or form <sup>2</sup>
-	Taking process equipment offline for maintenance works 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, sewage sludge storage pond or Geobag	No less than 14 days in advance of Works <sup>3</sup>	
-	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next working day	None specified
	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part B: As soon as practicable	
Condition14	Calibration report	As soon as practicable.	None specified
Table 4	Overflow from Infiltration Pond 1 into the environment	As soon as practicable after the overflow	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 2

Note 3: 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.

- 24.** 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 conditions of this licence;
  - (c) any maintenance of infrastructure that is performed in the course of complying with any condition of this licence;
  - (d) monitoring programmes undertaken in accordance with conditions 15,16 and 17 of this licence; and
  - (e) complaints received under condition 18 of this licence.
- 25.** The books specified under condition 24 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.

## Definitions

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

**Table 11: Definitions**

Term	Definition
AHD	means the Australian height datum
annual period	a 12 month period commencing from 1 of July until 30 of June the immediately following year.
approved form	means the Annual Audit Compliance Report (AACR) form template approved by the CEO for use and available via DWER's external website.
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 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 or target is measured or a monitoring result is obtained
BGL	means below ground level
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: <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
conditions	a condition to which the licence is subject under section 62 of the <i>Environmental Protection Act 1986</i>
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>
extreme rainfall event	means a one in ten year rainfall event of 72 hours duration
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;
in-situ soils	means soils that are in place and have not been moved from their original place of deposition
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.
mass balance	means the calculation resource flows and losses based on the mass and/or volume of inputs to a process which balances the mass and/or volume of outputs as products, emissions and wastes, plus any change in stocks
monthly period	means a one-month period commencing from first day of a month until last day of the immediately before the following month.
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(s) (Figure 1 and 2) in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.

Term	Definition
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 and 1 April to 30 June.
Schedule 1	means Schedule 1 of this Licence unless otherwise stated;
Schedule 2	means Schedule 2 of this Licence unless otherwise stated; and
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.

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**END OF CONDITIONS**



## Schedule 1: Maps

### Premises map

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

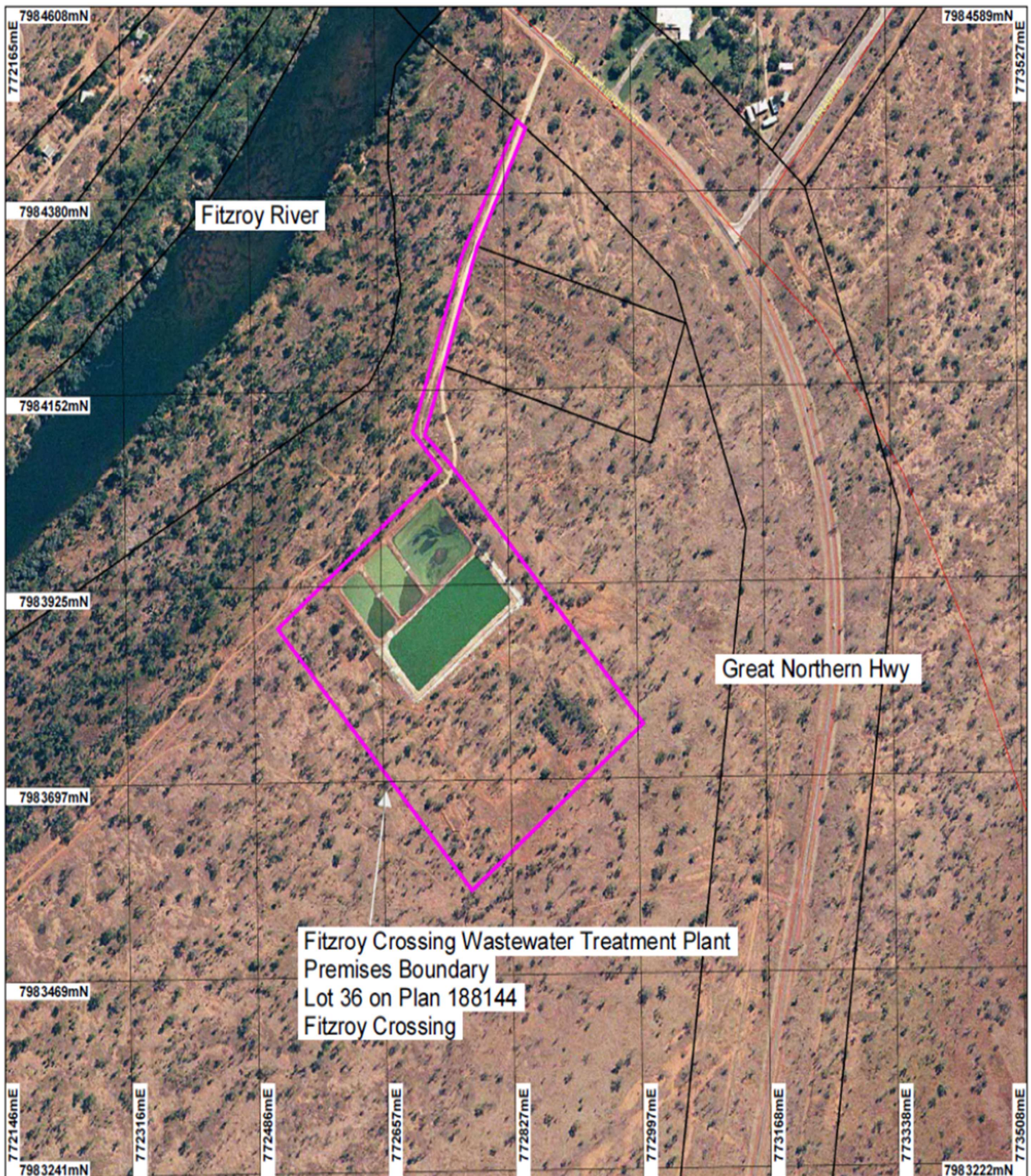


Figure 1: Map of the boundary of the prescribed premises



Map of emission points and monitoring locations

The locations of the emission points defined in Table 4, Table 5 and Table 6 and the monitoring points defined in Table 7 are shown below.



Figure 2: Map of emission points and monitoring locations



## Schedule 2: Reporting & Notification forms

Licence: L6271/1991/10  
Form: ET1  
Name: Target exceedances

Licence Holder: Water Corporation  
Period:

### Form ET1: Target exceedances

Please provide an analysis of the target exceedances for the month, including but not limited to:

- (a) the emission point
- (b) the root cause analysis for the exceedances;
- (c) any common or contributory factors including but not limited to fuel, mass emissions, gas flow rates, inlet & exit temperature, abatement status;
- (d) a description of remedial measures taken or planned to be taken, including those taken to prevent recurrence of the exceedances;
- (e) complaints received that may have been caused by this exceedance; and
- (f) for those exceedances that may have caused complaints, meteorological details: temperature, wind speed and wind direction, humidity.

Signed on behalf of Water Corporation: .....

Date: .....

Licence: L6271/1991/10