



Licence number	L6796/1991/13
Licence holder	Water Corporation
ABN	28 003 434 917
Registered business address	John Tonkin Water Centre 629 Newcastle Street Leederville WA 6007
DWER file number	DER2016/000585
Duration	01/11/2011 to 31/10/2027
Date of issue	24/08/2023
Premises details	Narrogin Water Resource Recovery Facility Legal description - Lots 698, 699, 704, 705 & 1556 on Plan 222899 (Crown Reserve 26458) NARROGIN WA 6312 and Lot 2001 on Plan 67196 NARROGIN VALLEY WA 6312 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 1,800 m ³ per day

This licence is granted to the licence holder, subject to the attached conditions, on 24 August 2023, by:

Grace Campbell
A/Senior Environmental Officer, Industry Regulation
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
25/09/2008	L6796/1991/12	Licence re-issue
20/10/2011	L6796/1991/13	Licence re-issue
07/06/2012	L6796/1991/13	Licence amendment to include Environmental Improvement Plan (EIP)
12/03/2014	W5633/2014/1	Works Approval to construct treatment wetland
30/06/2016	L6796/1991/13	Licence amendment to allow for inclusion of new infrastructure, and converting the licence to latest format. The licence has also been extended as per the <i>Notice of amendment of licence expiry dates Section 59B(9) and Section 59(1)(k) Environmental Protection Act 1986 Licensed Prescribed Premises</i> (Notice) given effect by the CEO General on 29 April 2016. The Notice gave regard to the <i>Guidance Statement: Licence Duration</i> . The expiry date of Licence L6796/1991/13 was amended under the Notice from 31 October 2016 to 31 October 2027.
12/04/2018	L6796/1991/13	Amendment Notice 1 to permit the upgrade of the chlorination unit and associated infrastructure
27/04/2018	L6796/1991/13	Amendment Notice 2 to update the Premises Map
24/08/2023	L6796/1991/13	Licence amendment to the submission dates for the Environmental Report 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:

Premises operation

1. 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
Sewage	1,800 m ³ /day	Accepted through sewer inflow(s) or tankered only

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 requirements described in Table 2.

Table 2: Waste Processing

Waste type	Processes	Process requirements
Sewage	Physical, biological and chemical sewage treatment.	1,800m ³ /day peak The sewage must undergo: <ul style="list-style-type: none"> - Preliminary treatment(screening); - Process treatment (clarification and aeration inthe aeration ponds); and - Secondary treatment anddisinfection
Treated sewage prior to discharge to Narrogin Brook	Storage and biological treatment	Treated sewage must be directed to the treatment wetland cells 1 and 2 as shown in Schedule 1, prior to discharge to Narrogin Brook.
Treated sewage prior to irrigation	Storage and chemical treatment	Treated sewage is to be stored within the Town Storage Pond (Dam) as shown on the Premises layout map in Schedule 1, and chlorinated prior to irrigation off site.
Sewage sludge	Storage	Max. 420m ³ stored at any onetime. Sludge must be stored in geobags whilst located on thePremises.

3. The Licence Holder must ensure that sewage 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 (as shown on the Premises layout map in Schedule 1)	Material	Infrastructure requirements
2 x Clarifier humus tanks	Sewage	Enclosed concrete tanks.
Aerated ponds 1 and 2 (5ML capacity each)	Sewage	Clay lined pond.
Town Storage Pond (dam) (3.8ML capacity)	Treated sewage	Clay lined pond.
Treatment wetland cells 1 and 2 (10ML capacity each)	Treated sewage	Formed basin lined with geosynthetic clay liner. Contains soil planted with reeds.
Sewage sludge drying beds	Sewage sludge and filter backwash sludge	<ul style="list-style-type: none"> Formed sludge drying bed with a concrete base. Bitumen sealed bunds at a minimum height of 300 mm. Leachate drain to direct all leachate to the treatment pond. Sludge to be stored within the sludge drying beds in geobags.

4. The Licence Holder must manage the aeration ponds such that:
 - (a) overtopping of the ponds does not occur; and
 - (b) a freeboard equal to, or greater than, 300mm is maintained;
 - (c) the integrity of the containment infrastructure is maintained;
 - (d) trapped overflows are maintained on the outlet of ponds to prevent carry-over of surface floating matter; and
 - (e) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.
5. The Licence Holder must manage the sewage treatment vessels such that:
 - (a) overtopping of the vessels does not occur; and
 - (b) stormwater runoff is prevented from entering the vessels; and
 - (c) there is no discernible seepage loss from the vessels; and
 - (d) vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the vessels.
6. The Licence Holder must manage the wetland treatment system (cells 1 and 2) such that:
 - (a) overtopping of the wetland treatment system does not occur; and
 - (b) stormwater runoff is prevented from entering the wetland treatment system.

Emissions

7. The Licence Holder must ensure that where waste is emitted to surface water from the emission points in Table 4 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 4: Emission points to surface water

Emission point reference and location on Map of emission points	Emission point reference on Map of emission points	Description	Source including abatement
As depicted in Schedule 1: Narrogin Brook Discharge Point	Narrogin Brook Discharge Point E: 518004 N: 6354858 MGA: 50	Discharge of treated sewage via discharge outlet into the Narrogin Brook	Treated sewage

8. The Licence Holder must ensure that where waste is emitted to land from the emission points in Table 5 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 5: Emissions to land

Emission point reference	Emission point reference on Map of Irrigation locations	Description	Source including abatement
Irrigated Water Sample Point (Town Storage Pond)	West Narrogin Primary School, Centre Sports Ground (Clayton Rd oval), Centre Sports Ground (racetrack), Thomas Hogg oval, Narrogin High School, East Narrogin Primary School, Gnarrogin Park and Memorial Park.	Discharge to offsite irrigation areas	Treated sewage

Monitoring

9. The Licence Holder must ensure that:
- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
 - all surface water sampling is conducted in accordance with AS/NZS 5667.4 and AS/NZS 5667.6 as relevant;
 - 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.
10. The Licence Holder must ensure that monthly monitoring is undertaken at least 15 days apart.
11. 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.
12. 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.

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

Table 6: Monitoring of inputs and outputs

Input/ Output	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Sewage inlet flow	Inflow meter at Havelock St SPS	Volumetric flowrate (cumulative)	m ³ /day	Monthly	Continuous
Treated sewage to offsite irrigation	Outflow measuring unit (Town Storage Pond)	Treated sewage flow rate (cumulative)			
Treated sewage to discharge into Narrogin Brook	Outflow measuring unit (Narrogin Brook Discharge Point)	Treated sewage flow rate (cumulative)			

14. The Licence Holder must undertake the monitoring in Table 7 according to the specifications in Table 7.

Table 7: Monitoring of emissions to surface waters

Emission point	Parameter	Units	Averaging period	Frequency
As depicted in Schedule 1: Narrogin Brook Discharge Point E: 518004 N: 6354858 MGA: 50	Total Nitrogen	mg/L	Spot sample	Monthly when discharging to Narrogin Brook
	Total Phosphorus			
	Total Suspended Solids (TSS)			
	Total Dissolved Solids (TDS)			
	Biological Oxygen Demand (BOD)			
	Ammonium-Nitrogen			
	Nitrate + Nitrite-Nitrogen			
	pH	-		
	Thermotolerant Coliforms (<i>E. coli</i>)	cfu/100ml		

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

15. The Licence Holder must undertake the monitoring in Table 8 according to the specifications in Table 8.

Table 8: Monitoring of emissions to land.

Emission point reference	Parameter	Units	Averaging period	Frequency
Irrigated Water Sample Point (Town Storage Pond)	Total Nitrogen	mg/L	Spot sample	Monthly when discharging to irrigation
	Total Phosphorus			
	Total Suspended Solids (TSS)			
	Total Dissolved Solids (TDS)			
	Biological Oxygen Demand (BOD)			
	Ammonium-Nitrogen			
	Nitrate Nitrogen			
	Thermotolerant Coliforms (<i>E.coli</i>)	cfu/100ml		
	pH	-		

16. The Licence Holder must undertake the monitoring in Table 9 according to the specifications in Table 9.

Table 9: Monitoring of ambient surface water quality

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
As depicted in Schedule 1: Sample Point 1 (upstream) E: 517449 N: 6354924 MGA: 50 Sample Point 2 (downstream) E: 519369 N: 6354143 MGA: 50	Total Nitrogen	mg/L	Spot sample	Monthly when discharging to the Narrogin Brook, and where the Narrogin Brook is also flowing.
	Total Phosphorus			
	Ammonium-Nitrogen			
	pH	NA		
	Temperature	°C		
	Dissolved oxygen	mg/L		

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

Records and reporting

17. All information and records required by the Licence must:
- be legible;
 - if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - except for records listed in Condition 17(d) 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
 - 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.

18. The Licence Holder must:

- (g) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
- (h) prepare and submit to the CEO an Annual Audit Compliance Report in the approved form by 1 October each year.

19. 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.

20. The Licence Holder must:

- (i) prepare an environmental report that provides information in accordance with Table 10 for the preceding annual period, and
- (j) submit the environmental report to the CEO by 1 October each year.

Table 10: Environmental Report

Condition or table (if relevant)	Parameter	Format or form
Table 1	Summary of any waste acceptance quantity limit exceeded and any action taken.	None specified
Table 6	Summary of all input and output monitoring data which must include: <ul style="list-style-type: none"> Data in a table format for the annual period;and Comment on annual period inflow and outflowvolumetric trends. 	None specified
Table 7	Monitoring of emissions to surface water: <ul style="list-style-type: none"> Data in a table format for the annual period; Data in graphical format for trend analysis to include at least the last four years data where available. 	None specified
	Methodology and calculations used to estimatethe daily volumetric flow rate of treated sewage discharged to Narrogin Brook and results of those calculations.	
	Comparison and interpretation of the current water quality entering Narrogin Brook against historical water quality data and relevant waterquality criteria <ul style="list-style-type: none"> Data in a table format for the annual period; Data in graphical format for trend analysis to include at least the last four years data where available. 	
	Total Nitrogen and Total Phosphorus Contaminant loading (kg/day – monthly average)to water discharged to Narrogin Brook	

Table 8	Monitoring of emissions to land <ul style="list-style-type: none"> • Data in a table format for the annual period; • Data in graphical format for trend analysis to include at least the last four years data where available. 	None specified
	Methodology and calculations used to estimate the daily volumetric flow rate of treated sewage discharged to irrigation and results of those calculations.	
	Comparison and interpretation of the current water quality discharged to irrigation against historical water quality data and the relevant water quality criteria.	
	Total Nitrogen and Total Phosphorus Contaminant loading (kg/day – monthly average) to water discharged to irrigation	
Table 9	Monitoring of ambient environmental quality Data in a table format for the annual period; Data in graphical format for trend analysis to include at least the last four years data where available.	None specified
	Comparison and interpretation of the current water quality of Narrogin Brook (upstream and downstream) against historical water quality data and the relevant water quality criteria. <ul style="list-style-type: none"> • Data in a table format for the annual period; • Data in graphical format for trend analysis to include at least the last four years data where available. 	
18	Compliance	AACR
19	Complaints summary	None specified

21. The Licence Holder must submit the information in Table 11 to the CEO according to the specifications in that table.

Table 11: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form
-	Copies of original monitoring reports submitted to the Licence Holder by third parties	Not Applicable	Within 14 days of the CEO's request	As received by the Licence Holder from third parties

22. The Licence Holder must ensure that the parameters listed in Table are notified to the CEO in accordance with the notification requirements of Table 12.

Table 12: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
-	Taking process equipment offline for maintenance works that may result in increase odour emissions.	No less than 72 hours in advance of works	None specified
-	Breach of any limits specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next working day Part B: As soon as practicable	N1

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

Note 2: Form is in Schedule 2

Definitions

In this licence, the terms in Table 13 have the meanings defined.

Table 13: Definitions

Term	Definition
ABN	Australian Business Number.
Act	means the <i>Environmental Protection Act 1986</i> ;
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).
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 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 5667.4	means the Australian Standard AS/NZS 5667.4 Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made;
AS/ NZS5667.6	means the Australian Standard AS/NZS 5667.6 Water Quality – Sampling – Guidance on sampling of rivers and streams;
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 Water Quality – Sampling – Guidance on sampling of waste waters.
averaging period	means the time over which a limit or target is measured or a monitoring result is obtained.
category	means category as described in Schedule 1 of the <i>Environmental Protection Regulations 1987</i> .
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/100 mL	means colony forming units per 100 millilitres;
controlled waste	has the definition in <i>Environmental Protection (Controlled Waste) Regulations 2004</i> ;

Term	Definition
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.
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
leachate	means liquid released by or water that has percolated through waste and which contains some of its constituents.
Licence	means this Licence numbered L6796/1991/13 and issued under the Act.
Licence Holder	means the person or organisation named as Licence Holder on page 1 of the Licence.
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	means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence.
Schedule 1	means Schedule 1 of this Licence unless otherwise stated.
Schedule 2	means Schedule 2 of this Licence unless otherwise stated.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
treated sewage	means sewage/wastewater that has been treated by the sewage treatment system.
sewage treatment system	means the system for treating sewage at the Premises which comprises of the screener, trickling filters, two clarifier humus tanks and two aeration ponds on the Premises.
WRRF	Water Resource Recovery Facility

END OF CONDITIONS

Schedule 1: Maps

Premises layout map

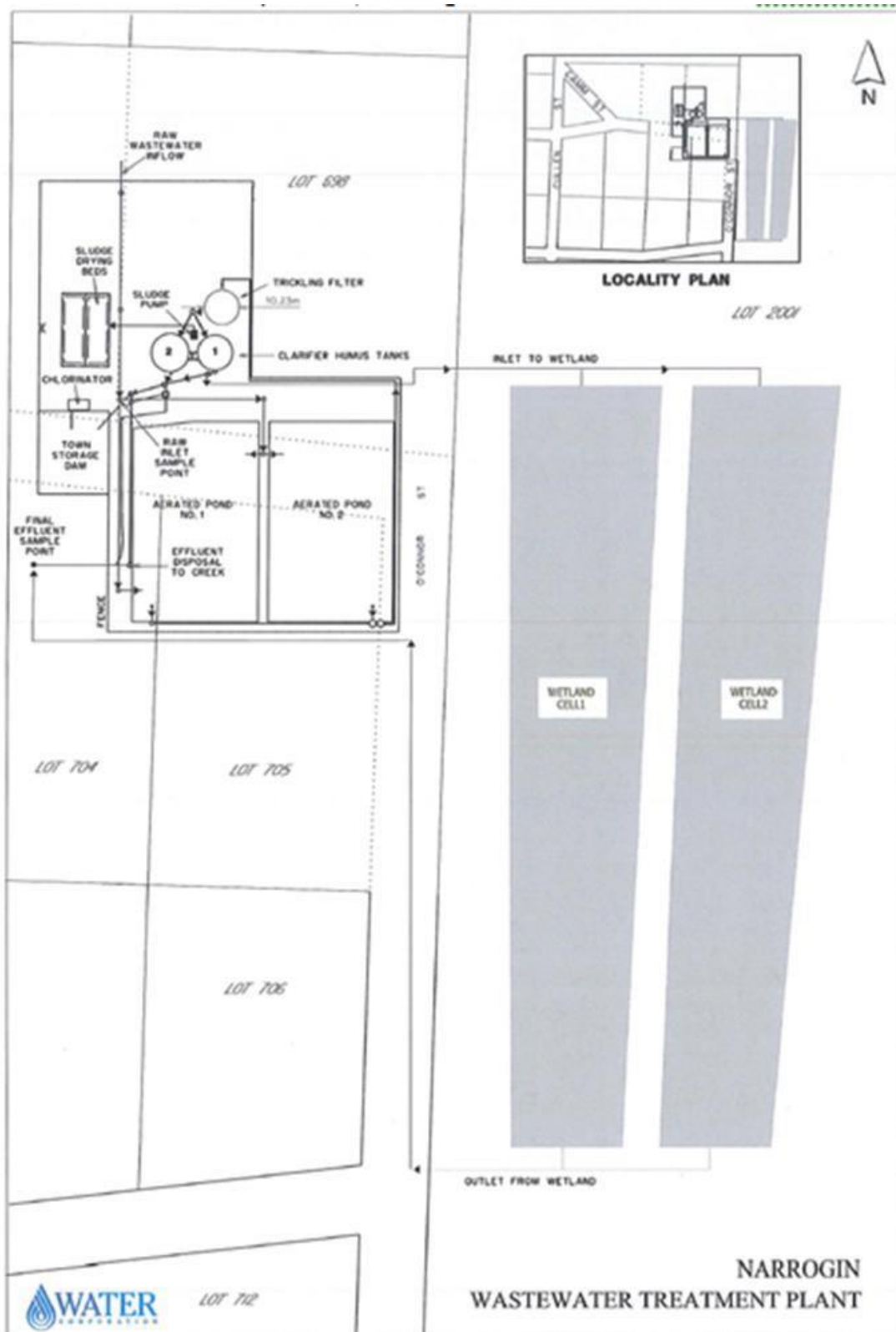


Figure 1: Premises layout and key infrastructure

Premises boundary, discharge and sampling point map

The location of the direct discharge to surface water (Narrogin Brook) and discharge to irrigation from the Town Storage Pond and their respective sampling points are shown by the green dots on the map below.

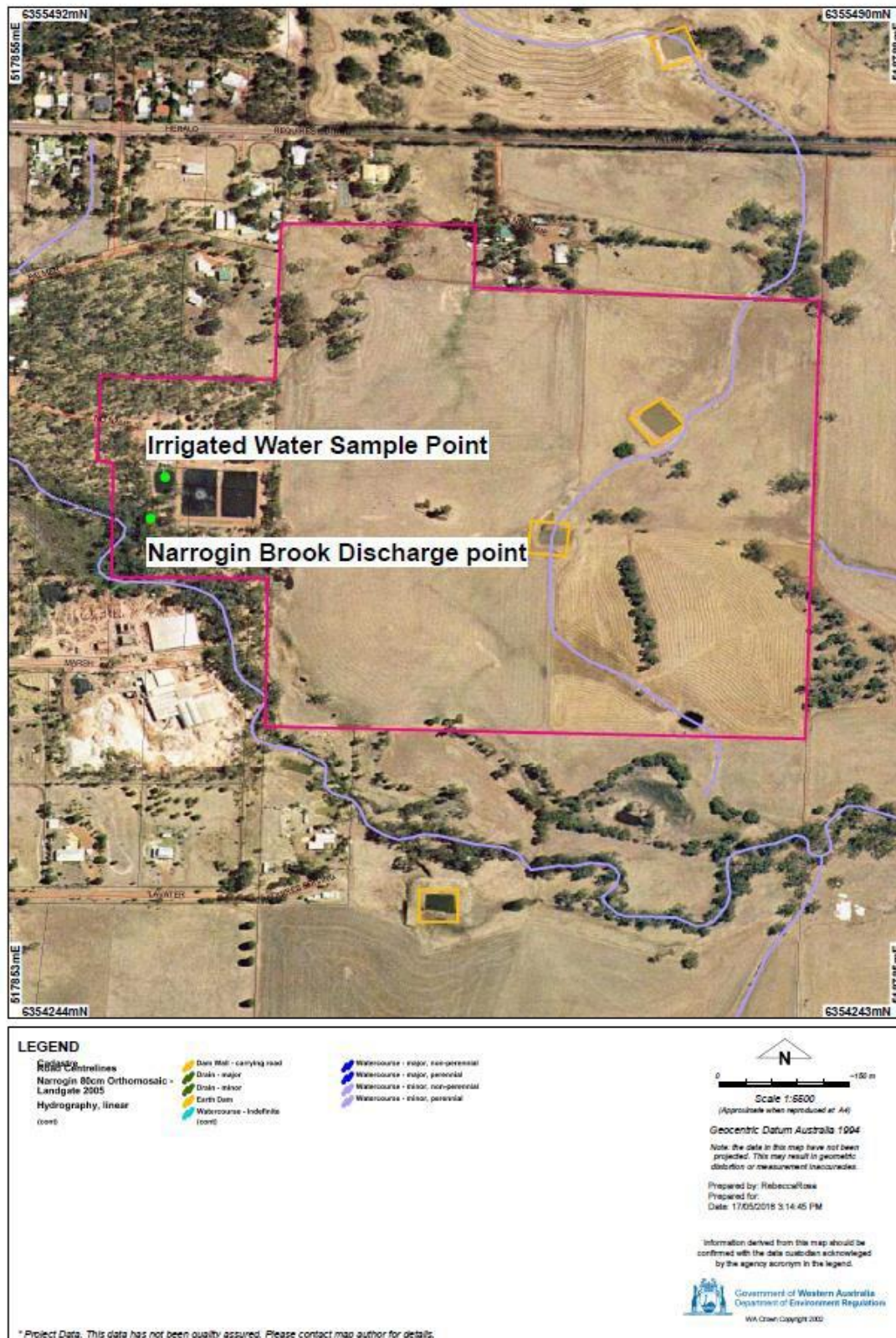


Figure 2: Premises boundary, discharge and sampling points

L6796/1991/13 (Amended 24 August 2023)

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

Irrigation Location map

The location of areas irrigated with treated waste water from the Narrogin WRRF. The yellow lines depict the pipeline infrastructure. The green lines depict the irrigation sites. The purple areas show the location of disinfection/storage and the red area depicts the location of the WRRF aeration ponds 1 and 2. The Town Storage Pond is shown by the purple square adjacent to the WRRF aeration ponds in the bottom right hand corner of the picture.



Figure 3: Irrigation locations

Ambient Water Quality Monitoring map

The location of sampling points for ambient water quality monitoring. Sample Point 1 is upstream of the discharge location to Narrogin Brook. Sample Point 2 is located downstream of the discharge point to Narrogin Brook.

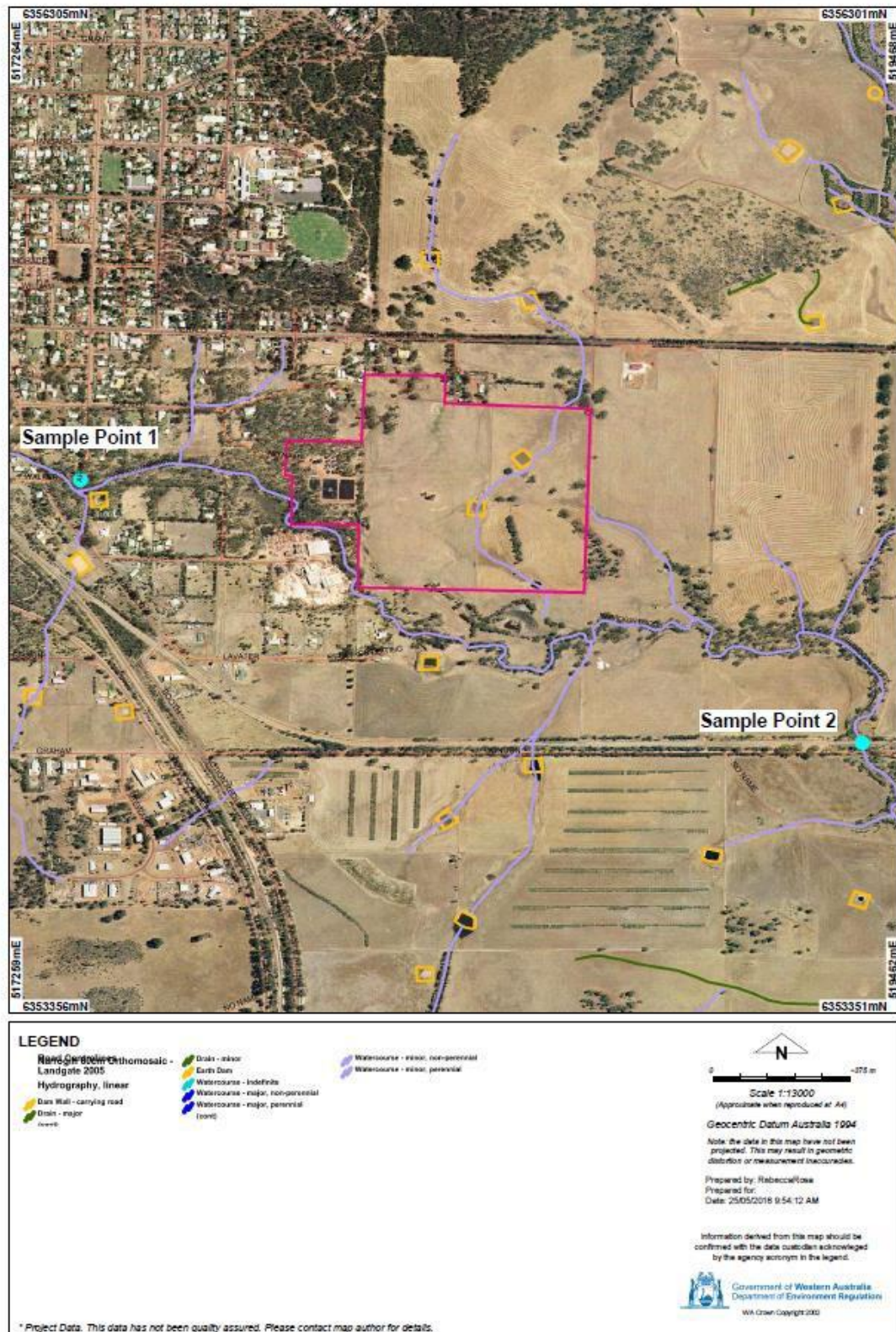


Figure 4: Ambient water quality monitoring locations

L6796/1991/13 (Amended 24 August 2023)

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

Site Map

The location of premises infrastructure is shown in the site map below.

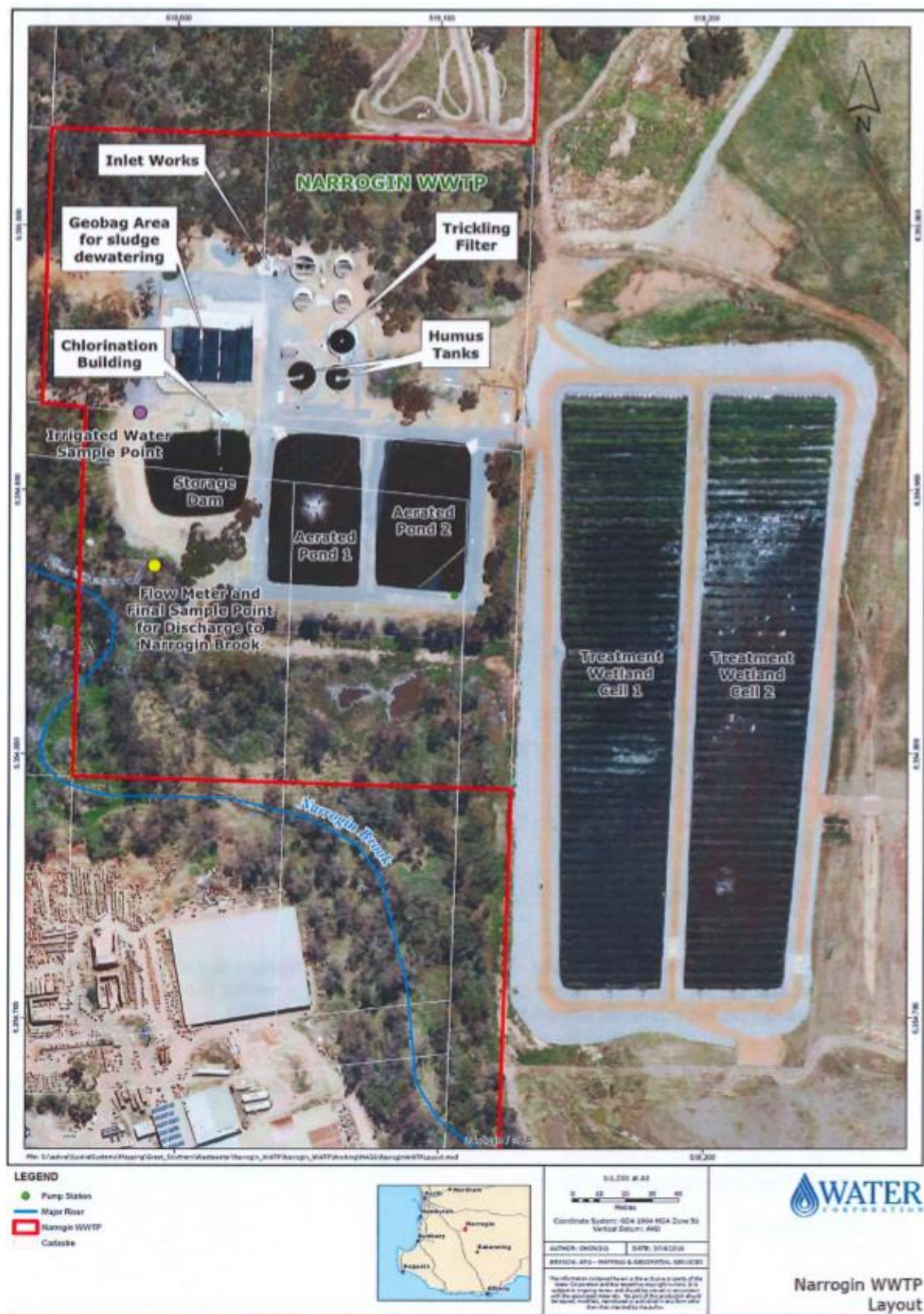


Figure 5: Site layout

Schedule 2: Notification Forms

Licence: L6796/1991/13 Licence Holder: Water Corporation
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 shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

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 Water Corporation	
Date	