Licence number L5972/1992/14

Licence holder Water Corporation

Registered business address 629 Newcastle Street

**LEEDERVILLE WA 6007** 

**DWER file number** DER2014/001681-1

**Duration** 01/11/2014 to 31/10/2031

Date of issue 30/10/2014

Date of amendment 31/05/2022

Premises details Bunbury Water Resource Recovery Facility

Access via Ocean Drive DALYELLUP WA 6230

Being Part Lot 5262 on Plan 183085

As defined by the Premises map and coordinates in

Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed production or 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.	15 000 cubic metres per day
Category 61: Liquid waste facility: premises on which liquid waste produced on others premises (other than sewage waste) is stored, reprocessed, treated or irrigated.	5 000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 30 May 2022, by:

**Stephen Checker Manager, Waste Industries** 

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

L5972/1992/14 (Amendment Date 31/05/2022)

# **Licence history**

Date	Reference number	Summary of changes
19/05/1992	L3553	Licence issued to Water Authority of WA for existing No.2 plant. Treatment via trickling filter with discharge via infiltration into swale depressions behind the fore dunes.
09/06/1993	L4179	Licence issue. Design capacity 3,300 m <sup>3</sup> /d.
22/04/1994	W1086	Works approval to upgrade Bunbury No.2 plant and divert flows from Bunbury No.1 plant.
29/09/1994	L5388	Licence reissue.
21/04/1995	W1225	Works approval to further extend wastewater treatment and effluent disposal facilities at Bunbury.
15/09/1995	L5972	Licence reissue.
10/02/1997	L5972	Licence reissue.
16/01/1998	L5972/2	Licence reissue. Increase in capacity to 9,400 m <sup>3</sup> /d.
15/12/1998	L5972/3	Licence reissue. Issued to Water Corporation.
01/10/1999	L5972/4	Licence reissue.
25/09/2000	L5972/5	Licence reissue.
13/11/2000	L5972/5	Licence amendment to require additional groundwater monitoring.
09/10/2001	W3510	Works approval for construction of a 1.7 km ocean outfall, to allow disposal of up to 16,000 m³/d and replace the infiltration lagoons. Approval followed a Public Environmental Review and issue of Ministerial Statement No. 572 of 2001.
04/09/2001	L5972/6	Licence reissue.
02/07/2002	L5972/6	Licence amendment to authorise disposal via the newly constructed ocean outfall. Discharge to the infiltration lagoons ceased.
18/09/2002	L5972/7	Licence reissue.
01/10/2003	L5972/8	Licence reissue.
01/06/2004	L5972/8	Licence amendment regarding bacterial counts and approval to discharge to the infiltration lagoons during non-standard/emergency situations.

14/09/2004	L5972/9	Licence reissue.
28/01/2005	L5972/9	Licence amendment following Ministerial approval to temporarily increase the annual nitrogen load limit on the ocean outfall to 66 tonnes during upgrade of the IDEA plant.
25/10/2005	L5972/10	Licence reissue.
26/10/2006	L5972/11	Licence reissue.
30/10/2008	L5972/1992/12	Licence reissue. Plant upgraded in 2009 without the need for a works approval with an additional IDEA plant and decommissioning of the old trickling filter plant and sludge drying beds.
05/08/2010	L5972/1992/12	Licence amendment to reflect upgraded capacity (15,000 m³/day) and remove the duplication of ocean outfall monitoring between the MS and licence.
20/10/2011	L5972/1992/13	Licence reissue.
20/03/2014	L5972/1992/13	Licence amendment to include phosphorus discharge limit (10 mg/L) from MS 572.
30/10/2014	L5972/1992/14	Licence reissue in new template
31/05/2022	L5972/1992/14	Licence amendment to amend the Premises boundary and construct and operate a return waste pipeline.

# 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:

### Infrastructure and equipment

- **1.** The works approval holder must:
  - (a) construct and install the infrastructure;
  - (b) in accordance with the corresponding design and construction / installation requirements; and
  - (c) at the corresponding infrastructure location as set out in Table 1.

#### Table 1: Design and construction / installation requirements

Infrastructure	Design and construction / installation requirements	Infrastructure location
Waste return main	HDPE DN180 PN16 PE100 fusion welded buried pipe circumnavigating the north and east perimeter of the water resource recovery facility fence, terminating at the tanker receival facility	As depicted in Schedule 1, Figure 1

#### **Compliance reporting**

- 2. The Licence Holder must within 60 calendar days of an item of infrastructure required by condition 1 being constructed:
  - (a) undertake an audit of their compliance with the requirements of condition 1; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
- **3.** The Environmental Compliance Report required by condition 2, must include as a minimum the following:
  - (a) certification by a Suitably Qualified Engineer that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1; and
  - (b) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

### **Premises operation**

- **4.** The Licence Holder shall only allow waste to be accepted on to the Premises if:
  - (a) it is of a type listed in Table 2;
  - (b) the quantity accepted is below any limit listed in Table 2; and
  - (c) it meets any specification listed in Table.2.

**Table 2: Waste acceptance** 

Waste	Quantity Limit	Specification <sup>1</sup>
Sewage accepted through sewer inflows from reticulated sewage system		None specified
Sewage delivered to the premises by tanker and discharged to the 'influent collection pit and tanker receival' as shown in the Premises map in Schedule 1.	15 000 m³/day	Includes tanker loads of sewage sourced from the reticulated sewage system, or from the emptying of septic tank systems
Liquid waste received via the waste return main		Returned from Aqwest's Recycled Water Treatment Plant
Recycled water received via the header tank return line	N/A	Returned from Aqwest's Recycled Water Treatment Plant into the balancing ponds

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

- **5.** The Licence Holder shall manage the water resource recovery facility such that:
  - (a) uncontaminated stormwater runoff resulting from roof and site drainage shall not enter the water resource recovery facility; and
  - (b) discharge of leachate, treated wastewater or untreated wastewater (such as via direct discharge, overtopping or seepage) from the water resource recovery facility shall not occur.
- **6.** The Licence Holder shall dispose of collected grit and screenings from the inlet works to a licensed or registered landfill.

## **Emissions**

#### Point source emissions to surface water

7. The Licence Holder shall ensure that where waste is emitted to surface water from the emission points in Table 3 it is done so in accordance with the conditions of this Licence.

Table 3: Emission points to surface water

Emission point reference	Description	Source including abatement	
Discharge weir, as depicted on the Premises Map in Schedule 1	Discharge weir to the ocean outfall	Wastewater treated through four sequence batch reactors (as depicted on the Premises Map in Schedule 1), which treat wastewater to an advanced tertiary standard.	

**8.** The Licence Holder shall not cause or allow point source emissions to surface water greater than the limits listed in Table 4.

Table 4: Point source emission limits to surface water

Emission point reference	Parameter	Limit (including units)	Averaging period
Discharge weir, as depicted on the Premises Map in Schedule 1	Total phosphorus	10 mg/L	Spot sample

#### **Emissions to land**

**9.** The Licence Holder shall ensure that where waste is emitted to land from the emission points in Table 5, it is done so in accordance with the conditions of this Licence.

Table 5: Emissions to land

Emission point reference	Description	Source including abatement
Infiltration points, as depicted on the Premises Map in Schedule 1	Discharge of treated wastewater to land via infiltration ponds	Wastewater treated through four sequence batch reactors (as depicted on the Premises Map in Schedule 1) treating wastewater to an advanced tertiary standard.  Discharge only occurs in exceptional circumstances as a temporary contingency measure, for example if there is infrastructure failure preventing the discharge of treated wastewater to ocean outfall in accordance with condition 7.

## **Monitoring**

#### **General monitoring**

- **10.** The Licence Holder shall 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 microbiological samples are collected and preserved in accordance with AS/NZS 2031:
  - (d) 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.
- **11.** The Licence Holder shall ensure that:
  - (a) monthly monitoring is undertaken at least 15 days apart; and
  - (b) quarterly monitoring is undertaken at least 45 days apart.
- **12.** 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.

#### Monitoring of point source emissions to surface water

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

Table 6: Monitoring of point source emissions to surface water

Emission point reference	Parameter	Units	Averaging period	Frequenc y
Discharge weir, as depicted on	Volume discharged to the ocean outlet <sup>1</sup>	KL or m <sup>3</sup>	Monthly total	Continuou s
the Premises	pH <sup>2</sup>	pH units	Spot	Monthly
Map in Schedule 1	Total dissolved solids <sup>3</sup> , total suspended solids, biochemical oxygen demand (unfiltered), total nitrogen, ammonium-nitrogen, nitrate + nitrite-nitrogen, total phosphorus	mg/L; and kg/day <sup>4</sup>	sample; and estimated daily loading	
	Escherichia coli	cfu/100mL		
	Arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, zinc	mg/L; and kg/day <sup>4</sup>	Spot sample; and estimated daily loading	Quarterly
	Pesticides and herbicides.	μg/L; and kg/day⁴	loading	

Note 1: Measurements of inflows into the water resource recovery facility are permitted to be used as a surrogate for outflow to the discharge weir.

Note 4: Monthly loads for contaminants are to be calculated using flow-weighted data; that is, incorporating the concentrations measured in spot samples and the volumes discharged during the period that the spot sample relates.

#### Monitoring of emissions to land

**14.** The Licence Holder shall undertake the monitoring in Table 7 according to the specifications in that table.

Note 2: In-field non-NATA analysis permitted.

Note 3: Total dissolved solids is not permitted to be calculated from electrical conductivity.

Table 7: Monitoring of emissions to land

Emission point reference	Parameter	Units	Averaging period	Frequenc y
Infiltration points, as	Volume discharged to the infiltration ponds	KL or m <sup>31</sup>	Monthly total	Continuou s
depicted on the Premises Map in Schedule 1	Total dissolved solids, total suspended solids, biochemical oxygen demand (unfiltered), total nitrogen, ammonium-nitrogen, nitrate + nitrite-nitrogen, total phosphorus	kg/day <sup>2</sup>	Estimated daily loading	Monthly
	Arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, zinc	kg/day <sup>2</sup>	Estimated daily loading	Quarterly
	Pesticides and herbicides.	kg/day <sup>2</sup>	Estimated daily loading	

Note 1: Measurements of inflows into the water resource recovery facility are permitted to be used as a surrogate for outflow to the infiltration points.

Note 2: Monthly loads for contaminants are to be calculated using flow-weighted data, that is, incorporating the concentrations measured in spot samples under condition 10 and the volumes discharged to the infiltration ponds during the period that the spot sample relates.

#### Monitoring of inputs and outputs

**15.** The Licence Holder shall undertake the monitoring in Table 8 according to the specifications in that table.

**Table 8: Monitoring of inputs and outputs** 

Input/output	Parameter	Units	Averagin g period	Frequency
Sewage accepted through sewer inflows from reticulated sewage system	Monthly volume	KL or m <sup>3</sup>	Monthly	Continuous
	Volumetric flow rate	m³/day		
Sewage delivered to the premises by tanker and discharged via the tanker receivable point	Monthly volume of each waste type	KL or m <sup>3</sup>	Monthly	Every load
Treated wastewater transferred to Aqwest	Monthly volume	KL or m <sup>3</sup>	Monthly	Continuous

Input/output	Parameter	Units	Averagin g period	Frequency
Recycled water received via the header tank return line	Monthly volume	KL or m <sup>3</sup>	Monthly	Continuous
Liquid waste received via the waste return main	Monthly volume	KL or m <sup>3</sup>	Monthly	Continuous

#### **Process monitoring**

**16.** The Licence Holder shall undertake the monitoring in Table 9 according to the specifications in that table.

**Table 9: Process monitoring** 

Monitoring point reference	Process description	Parameter	Units	Frequency	Method
Treated wastewater sample point, as depicted on the Premises Map in Schedule 1	Wastewater treated by the sequence batch reactors and discharging to the Balancing Ponds (as depicted in the Premises Map in	pH¹  Total dissolved solids², total suspended solids, biochemical oxygen demand (unfiltered), total nitrogen, ammoniumnitrogen, nitrate +	pH units mg/L	Spot sample	Monthly
	the Premises	ammonium-			

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

Note 2: Total dissolved solids is permitted to be calculated from electrical conductivity.

# **Information**

#### Records

- 17. All information and records required by the Licence 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) except for records listed in 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
  - (d) 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 shall complete an Annual Audit Compliance Report indicating the extent to which the Licence Holder has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.
- 19. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
  - (a) the name and contact details of the complainant, (if provided);
  - (b) the time and date of the complaint;
  - (c) the complete details of the complaint and any other concerns or other issues raised; and
  - (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.

#### Reporting

**20.** The Licence Holder shall submit to the CEO an Annual Environmental Report by 1 October each year. The report shall contain the information listed in Table 10 in the format or form specified in that table.

#### **Table 10: Annual Environmental Report**

Condition or table (if relevant)	Parameter	Format or form
-	Summary of any failure or malfunction of any pollution control equipment, environmental incidents, or limit exceedances that have occurred during the annual period and any action taken	None specified
Condition 13, Table 6	Summary of monitoring of point source emissions to surface water for the annual period, including:  a) data in tabular format; b) data in graphical format for trend analysis to include at least the last four years data, where available; and c) an assessment of ambient surface water quality monitoring data for impact on surface water quality.	None specified
Condition 14, Table 7	Monitoring of emissions to land for the annual period, including:  a) data in tabular format; b) data in graphical format for trend analysis to include at least the last four years data, where available; and c) an assessment of emissions to land monitoring data for impact on land and groundwater.	None specified

Condition or table (if relevant)	Parameter	Format or form
Condition 15, Table 8	Monitoring of inputs and outputs for the annual period.	None specified
Condition 16, Table 9	Process monitoring for the annual period	None specified
Condition 18	Compliance for the annual period	Annual Audit Compliance Report (AACR)
Condition 19	Complaints summary for the annual period	None specified

**<sup>21.</sup>** The Licence Holder shall 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 <sup>1</sup>
Condition 8, Table 4	Limit exceedances	Upon receipt of the monitoring results	7 calendar days	Email to pollutionwatch@ dwer.wa.gov.au

# **Definitions**

In this licence, the terms in Table 12 have the meanings defined.

**Table 12: Definitions** 

Term	Definition	
ACN	Australian Company Number	
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	means the inclusive period from 1 July until 30 June in the 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 5667.10	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 is measured or a monitoring result is obtained	
books	has the same meaning given to that term under the EP Act.	
CEO	means Chief Executive Officer of the Department.	
	"submit to / notify the CEO" (or similar), means either:	
	Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919	
	or:	
	info@dwer.wa.gov.au	
Controlled waste	has the definition in Environmental Protection (Controlled Waste) Regulations 2004	
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.	
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	Environmental Protection Act 1986 (WA)	
EP Regulations	Environmental Protection Regulations 1987 (WA)	
Controlled waste	means liquid released by or water that has percolated through waste and	

Term	Definition
	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.
NATA	means the National Association of Testing Authorities, Australia
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
spot sample'	means a discrete sample representative at the time and place at which the sample is taken
Usual working day	means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia
waste	has the same meaning given to that term under the EP Act.
water resource recovery facility	means all of the infrastructure related to the treatment of wastewater on the Premises, including but not limited to the influent collection pit and tanker receival, inlet works, digesters, sludge belt press & biosolids facility, sequence batch reactors and balancing ponds as depicted in the Premises map in Schedule 1

### **END OF CONDITIONS**

# **Schedule 1: Maps**

## **Premises map**

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

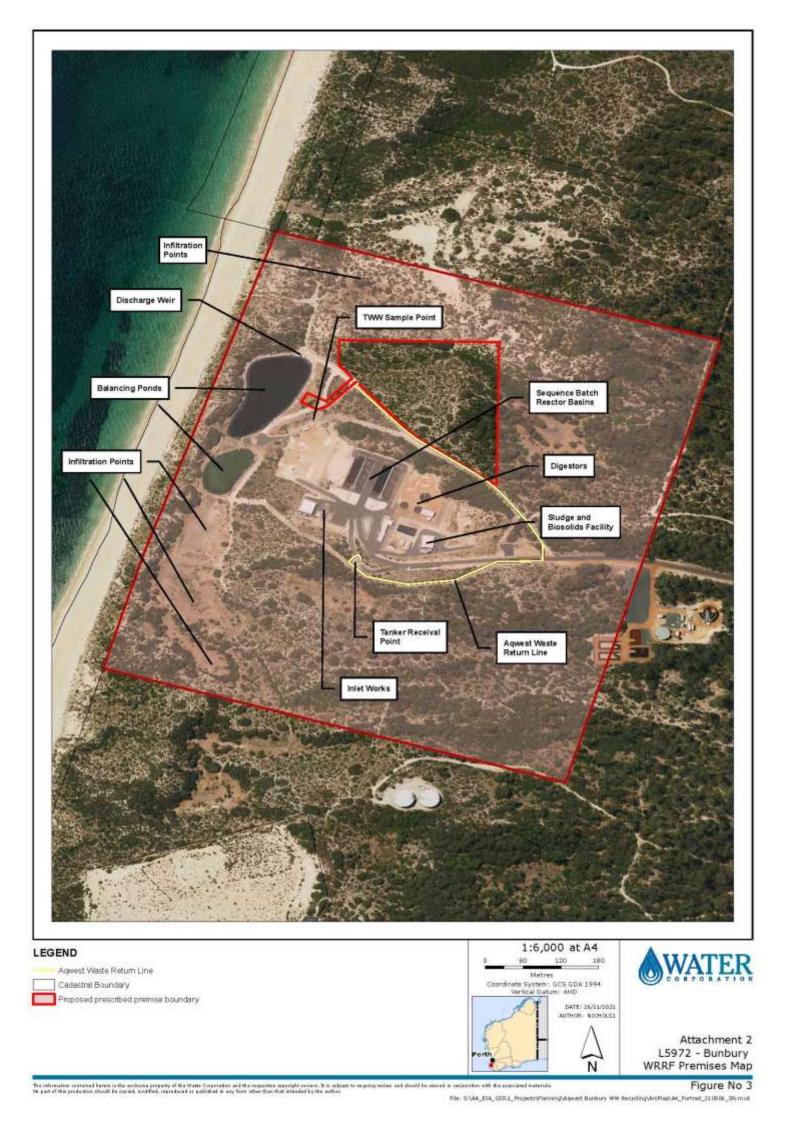


Figure 1: Map of prescribed premises boundary and layout

# **Schedule 2: Premises boundary**

The premises boundary is defined by the coordinates in Table 13.

Table 13: Premises boundary coordinates (GDA94)

Easting	Northing	Zone
371073.342	6305472.156	50
371343.346	6305396.816	50
371315.666	6305297.936	50
371262.912	6305109.479	50
371231.403	6304996.917	50
371147.279	6304696.398	50
370839.999	6304782.532	50
370532.72	6304868.666	50
370583.682	6305050.108	50
370668.133	6305305.882	50
370752.584	6305561.656	50
370803.337	6305547.495	50
370856.678	6305331.803	50
370821.7	6305294.505	50
370797.263	6305307.035	50
370789.231	6305292.605	50
370810.5	6305281.505	50
370824.004	6305286.535	50
370862.011	6305325.967	50
370922.16	6305260.148	50
370944.441	6305238.144	50
371050.241	6305164.797	50
371050.246	6305390.941	50
370838.018	6305390.941	50

Easting	Northing	Zone
370838.018	6305352.222	50