



Licence number	L5952/1991/12		
Licence holder	Water Corporation		
Registered business address	John Tonkin Water Centre 629 Newcastle St Leederville WA 6007		
DWER file number	DEC10219/1		
Duration	1/11/2021	to	31/10/2041
Date of issue	28/10/2021		
Date of amendment	02/04/2024		
Premises details	Busselton Water Resource Recovery Facility 348 Queen Elizabeth Avenue Ambergate WA 6280 Legal description - Lot 4680 on Deposited Plan 203019 Certificate of Crown Land Title Volume LR3069 Folio 272 As defined by the coordinates in Schedule 2		

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 54: Sewage facility: premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or waters	6,750 cubic metres per day
Category 61: Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated	30,000 tonnes per year

This licence is granted to the licence holder, subject to the attached conditions, on 02 April 2024, by:

Grace Heydon

A/Manager, Waste Industries – Regulatory Services

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

Licence history

Date	Reference number	Summary of changes
23/12/2010	W4807/2010/1	Works to upgrade the wastewater treatment plant.
18/10/2012	L5952/1991/11	Licence renewed.
22/10/2015	L5952/1991/11	Licence amended to increase plant design capacity from 4500 m ³ /day to 6750 m ³ /day.
29/04/2016	L5952/1991/11	Licence amended to extend duration by five years to 31/10/2021.
28/10/2021	L5952/1991/12	Licence updated to new format and renewed for twenty years.
02/04/2024	L5952/1991/12	Licence amended to allow acceptance and temporary storage of slurry dredged from the Lower Vasse Estuary, Busselton. Licence updated to revised template.

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

- The licence holder must ensure that the site infrastructure and equipment listed in Table 1 is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement
Inlet works, including 2 x band screens and 2 x grit removal systems and flow meter	<ul style="list-style-type: none"> The metering device must be maintained and be capable of measuring monthly cumulative incoming volumes of sewage; and ensure there is no discernible seepage loss from the inlet works.
Tanker receival facility	None specified.
Waste Activated Sludge pump station	
Secondary wastewater storage tank (1513 kL storage capacity)	Operated to ensure a constant supply of secondary treated wastewater to the tertiary filtration / disinfection facility.
Oxidation ditch (9 ML/day capacity) with two secondary clarifiers;	<ul style="list-style-type: none"> Overtopping of the wastewater treatment vessels and / or the reuse storage ponds does not occur except as a result of an extreme rainfall event (greater than 1 in 10-year event of 72 hours duration); there is no discernible seepage loss from the wastewater treatment vessels or reuse storage ponds; and floating debris and vegetation (emergent or otherwise) is prevented from growing in the wastewater treatment vessels and reuse storage ponds.
Reuse storage ponds x 2 and pump station	
Tertiary filtration and UV disinfectant facility (9 ML/day capacity)	None specified.
Sludge handling (dewatering) facility	Sludge leachate must be returned into the treatment process.
Flow meters x 3 (Mag flow, flume or similar)	<p>All metering devices must be maintained and be capable of measuring monthly cumulative volumes of treated wastewater discharged;</p> <ol style="list-style-type: none"> directly from the filtration and disinfection plant and / or the reuse storage pond via the reuse flow meter to the offsite discharge point for reuse; from the northern engineered wetlands to the Vasse Sub A Drain; and

Site infrastructure and equipment	Operational requirement
	(c) from the southern engineered wetlands to the Vasse Sub A Drain.
Northern and southern engineered wetlands	Surface water discharged from the northern and southern engineered wetlands must only be discharged to the Vasse Sub A Drain (via the AA Drain as shown in Schedule 1, Figure 2) through gauged and monitored discharge points.
Stormwater infrastructure	Uncontaminated stormwater runoff resulting from roof and site drainage must be prevented from entering the wastewater treatment vessels and reuse storage ponds.
Groundwater monitoring bores x 7	The monitoring bores designated WWTP1A, WWTP2, WWTP3, WWTP4, WWTP5, WWTP6 and WWTP7 must be maintained to allow representative water samples to be collected.
Sludge drying beds	<ul style="list-style-type: none"> • Leachate must drain to a collection sump and be pumped back into the treatment process. • Only to be used for storage: <ul style="list-style-type: none"> (i) as a contingency measure, in the event that the mechanical sludge dewatering facility is inoperable due to maintenance or under circumstances such as a mechanical or power failure; (ii) to hold and temporarily store materials, such as grit, rocks and rags, removed during sewer pump station well cleanouts; and (iii) to temporarily store slurry dredged from the Lower Vasse Estuary in the area of the Estuary immediately adjacent to Estuary View Drive, Busselton.
Contingency holding ponds	None specified.

Waste acceptance

2. The licence holder must only accept waste on to the premises if:
- (a) it is of a type listed in Table 2;
 - (b) the quantity accepted is below any quantity limit listed in Table 2; and
 - (c) it meets any specification listed in Table 2.

Table 2: Waste acceptance

Waste type	Waste Code	Quantity Limit	Specification ¹
Sewage	N/A	Up to 6750 m ³ per day	Accepted through sewer inflows via the inlet works.
Liquid waste	Biological waste categories: K100, K190, K140, K210, K110, K200 and K130; and Low strength wastewater	Up to a total of 30,000 tonnes per annual period ²	Liquid waste receipt via tankers unloaded into the tanker receipt facility.

	categories: L100, L150 and N140		
Liquid waste - Slurry dredged from the Lower Vasse Estuary immediately adjacent to Estuary View Drive, Busselton	N/A		Liquid waste receipt via tankers unloaded into the sludge drying beds. Limited to a volume of 500 m ³ .

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

Note 2: The total amount of liquid waste received not to exceed 30,000 tonnes per annual period.

Emissions and discharges

Odour

- The licence holder must ensure that odour emitted from storage of Lower Vasse Sediment slurry within the sludge drying beds does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the premises.

Discharge to water

- The licence holder must manage the discharge of treated wastewater from the treatment plant and associated sand filtration and disinfection plant to the northern and southern engineered wetlands by:
 - distributing treated wastewater to the wetland(s) to maximise residence time and contaminant reduction through biological interaction;
 - preventing unauthorised access to the site by maintaining stock fencing around the outside of the wetlands; and
 - maintaining signage around the wetlands warning the public that the water is treated sewage and is unfit for swimming or drinking. The notice should also contain the recommended International Public Information - Drinking Water Symbol with Prohibition Overlay and Swimming Symbol with Prohibition Overlay.

Solid Waste

- The licence holder must direct all dewatered sludge generated via the wastewater treatment process, into a hopper for temporary storage prior to disposal at a licensed facility authorised to take such waste.
- The licence holder must dispose of all other solid wastes generated at the premises, inclusive of grit and solids screened at the inlet works and Lower Vasse Estuary slurry, to a licensed facility authorised to take that waste.

Monitoring

Monitoring of inputs and outputs

- The licence holder must monitor the inputs and outputs at the monitoring points specified in Table 3, for the corresponding parameters and averaging period, and in the corresponding units and frequency specified in Table 3.

Table 3: Monitoring of inputs and outputs

Input / Output	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Sewage - Inlet flow	Inlet works flow meter	Volumetric flow rate	L/s m ³ /day	Monthly	Continuous
Liquid wastes	None specified	Volume of controlled waste (by category) and volume of Lower Vasse Estuary slurry received at the wastewater treatment plant	m ³ /day		Each load accepted at the premises
Offsite discharge for reuse	Reuse flow meter	Volumetric flow rate			Continuous
Discharges to the Vasse Sub A Drain (labelled 'AA Drain' in Schedule 1, Figure 2)	Northern WL flow monitoring (v-notch weir)				
	Southern WL flow monitoring (v-notch weir)				

Emissions and discharges monitoring

8. The licence holder must monitor the emissions and discharges specified in Table 4 for the corresponding parameters, in the corresponding units, at the corresponding frequency and using the corresponding method as specified in Table 4.

Table 4: Emissions and discharges monitoring

Monitoring location	Parameter	Units	Sampling frequency	Method
Final effluent sample point - the discharge post filtration and disinfection treatment directed to either the northern and southern engineered wetlands and / or directed offsite for reuse	pH ¹	pH units	Monthly	Spot sample, in accordance with AS/NZS 5667.1 and AS/NZS 5667.10.
	Total Suspended Solids Total Dissolved Solids Biochemical Oxygen Demand Total Nitrogen Ammonium-nitrogen Nitrate plus nitrite-nitrogen Total Phosphorus	mg/L		
	<i>E.coli</i>	cfu/100 mL		
	Cadmium, copper, lead, mercury and zinc	mg/L	Quarterly	

Drains A, AA and Vasse Sub A sampling points 1,2,3,4,5,6,7,8,9, BB ² , BBW ² and BBE ² (as defined in Schedule 1, Figure 3)	pH ¹	pH units	Monthly while discharging ²	
	Total Suspended Solids Total Dissolved Solids Biochemical Oxygen Demand (filtered) Total Nitrogen Ammonium-nitrogen Nitrate plus nitrite-nitrogen Total Phosphorus			
	<i>E.coli</i>	cfu/100 mL		

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

Note 2: The ocean monitoring points BB, BBW and BBE must be sampled at least once in summer, regardless of whether off-site discharge to the drains is occurring.

9. The licence holder must, using the data collected in accordance with condition 8, determine the load of each contaminant, listed as parameters in Table 5, in wastewater discharged from the corresponding discharge points, at the frequency and in the corresponding units specified in Table 5.

Table 5: Calculation of contaminant loads

Discharge Point	Parameters	Calculation frequency	Units
Final effluent discharged off-site for reuse	Total Dissolved Solids; Total Suspended Solids; Biochemical Oxygen Demand; Total Nitrogen; Total Phosphorus.	Monthly and annual loads	kg/day
Northern and southern engineered wetlands to Vasse Sub A Drain (labelled flow monitoring and sampling point to AA Drain in Schedule 1, Figure 2)			

Ambient groundwater monitoring

10. The licence holder must monitor groundwater for the parameters specified in Table 6 at the corresponding monitoring location and frequency, in the corresponding unit and using the corresponding method as specified in Table 6.

Table 6: Groundwater monitoring

Monitoring well reference and location	Parameter	Unit	Frequency	Method
WWTP1A; WWTP2; WWTP3; WWTP4; WWTP5; WWTP6; and WWTP7 (as per locations shown in Schedule 1, Figure 2).	pH ¹	pH ¹	Quarterly	Spot sample, in accordance with AS/NZS 5667.1 and AS/NZS 5667.11.
	Total Dissolved Solids	mg/L		
	Total Nitrogen			
	Ammonium-nitrogen			
	Nitrate plus nitrite-nitrogen			
Total Phosphorus				

	Standing water level	mAHD		
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Note 1: In-field non-NATA accredited analysis permitted

- 11.** The licence holder must ensure that all water samples collected in accordance with conditions 8 and 10 are analysed in a laboratory holding NATA accreditation for all the specified analyses.

Records and reporting

- 12.** 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:
- 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.
- 13.** The licence holder must:
- undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
 - prepare and submit to the CEO by no later than 1 October, an Annual Audit Compliance Report in the approved form.
- 14.** The licence holder must submit to the CEO an environmental report by no later than 1 October each year. The report shall contain the information listed in Table 7 in the format or form specified in that table.

Table 7: 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 7 (and Table 3)	Monitoring of inputs and outputs	Tabular
Condition 8 (and Table 4)	Treated wastewater emissions and discharge monitoring results.	Tabular and trend graphs
Condition 9 (and Table 5)	Calculation of monthly contaminant loads.	Tabular
Condition 10 (and Table 6)	Ambient groundwater monitoring results.	Tabular and trend graphs
Condition 12	A summary of the number and type of complaints received	None specified

Condition 13	Compliance	AACR
-	Any changes to site boundaries, location of groundwater monitoring bores, surface drainage channels and on-site or off-site impacts or pollution.	None specified
-	The quantity of sewage sludge removed from the premises	

- 15.** 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) any maintenance of infrastructure that is performed in the course of complying with conditions 1 and 7 of this licence;
 - (c) monitoring programmes undertaken in accordance with conditions 7, 8 and 10 of this licence; and
 - (d) complaints received under condition 12 of this licence.
- 16.** The books specified under condition 15 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 8 have the meanings defined.

Table 8: Definitions

Term	Definition
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 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>
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
cfu	colony forming units
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.
discernible	means capable of being seen, noticed or observed.
discharge	has the same meaning given to that term under the EP Act.
<i>E. coli</i>	means <i>Escherichia coli</i>
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)

Term	Definition
EP (Controlled Waste) Regulations	<i>Environmental Protection (Controlled Waste) Regulations 2004 (WA)</i>
extreme rainfall event	means the rainfall quantity from a one in ten years rainfall event of 72 hours duration, as defined by 'Australian Rainfall and Runoff: A Guide to Flood Estimation' (Institution of Engineers, 1987).
Final Effluent Sample Point	means the location of the final effluent sample point labelled 'FE Sample Point' in Schedule 1, Figure 2.
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.
Lower Vasse Estuary slurry	Liquid waste containing sediment dredged from the Lower Vasse Estuary immediately adjacent to Estuary View Drive, Busselton Western Australia.
mAHD	metres Above Height Datum
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.
waste	has the same meaning given to that term under the EP Act.
waste code	means the waste code assigned to a type of controlled waste for the purposes of tracking and reporting as specified in the Department's 'Controlled Waste Category List'.
wastewater treatment vessels	means the oxidation ditch and the two wastewater treatment clarifiers as shown in 'Infrastructure and groundwater bore map' (Figure 2) in Schedule 1 to this licence.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

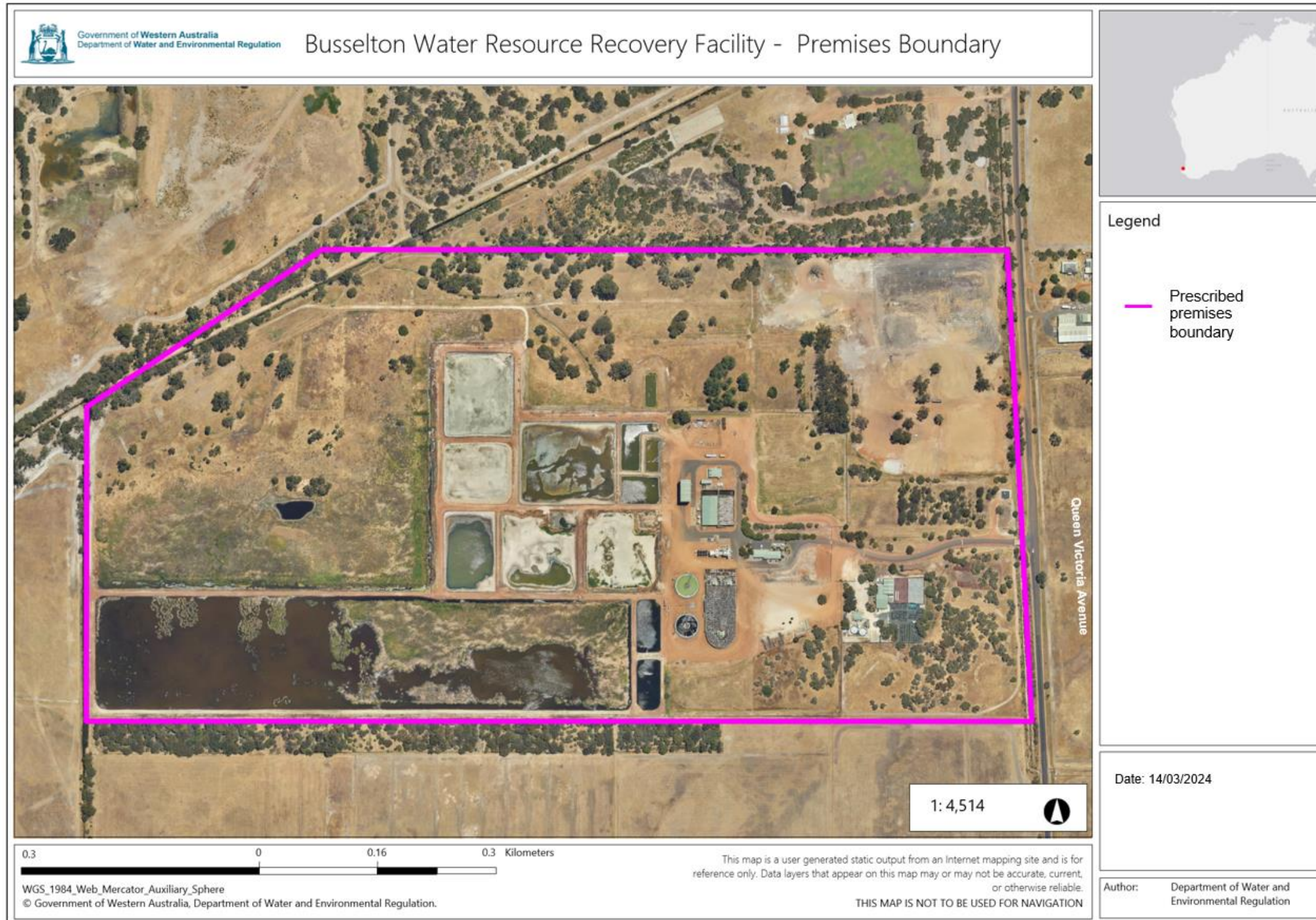


Figure 1: Map of the boundary of the prescribed premises

L5952/1991/12 (28/10/2021 Amended: 02/04/2024)

IR-T06 Licence template (v9.0) (November 2023)

Infrastructure and groundwater bore map

Prescribed premises infrastructure and groundwater monitoring bores (Figure 2).

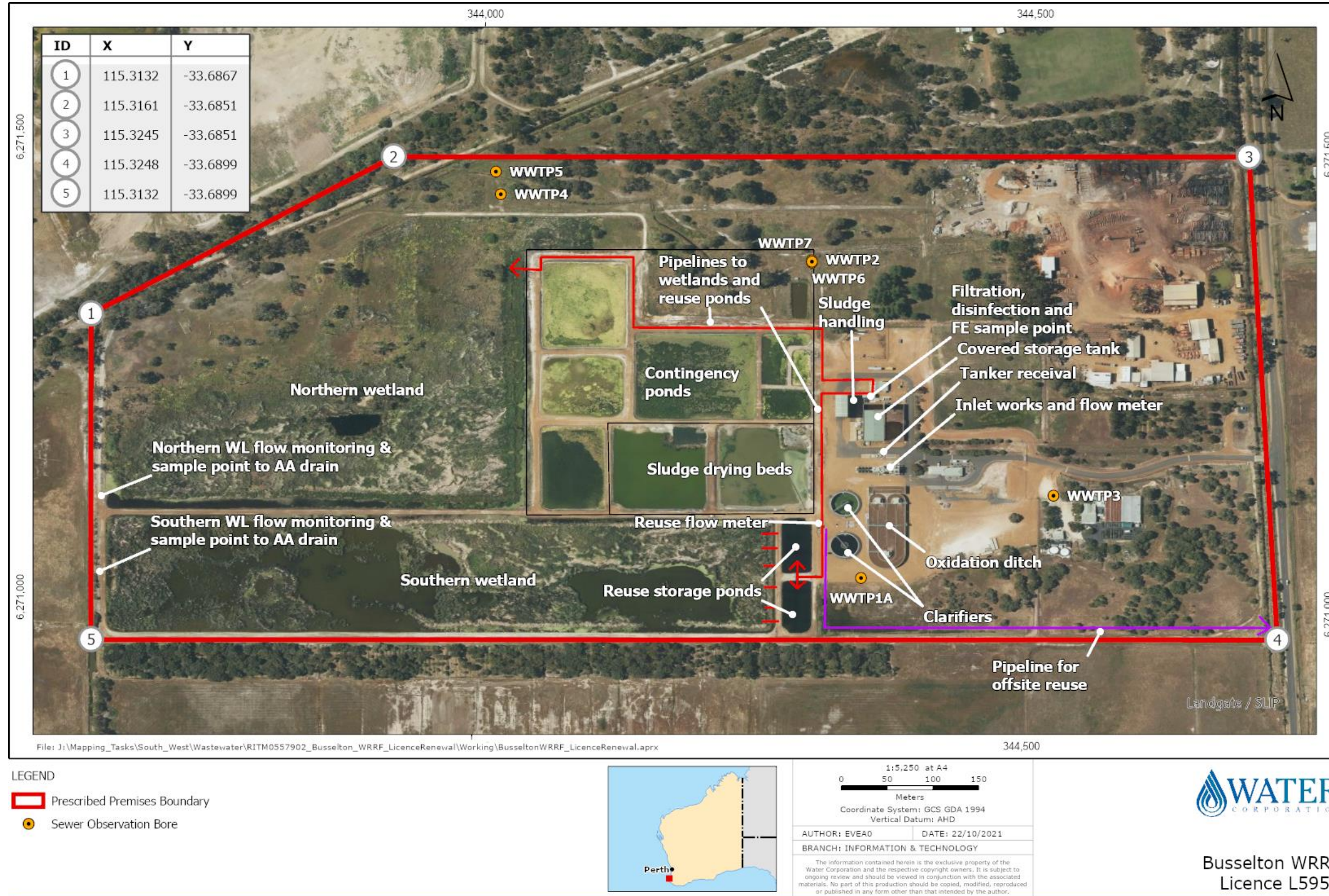


Figure 2: Map showing Busselton Water Resource Recovery Facility prescribed premises infrastructure and the location of groundwater monitoring bores

Water quality monitoring map

Geographe Bay and drain monitoring points are shown in the map below (Figure 3).

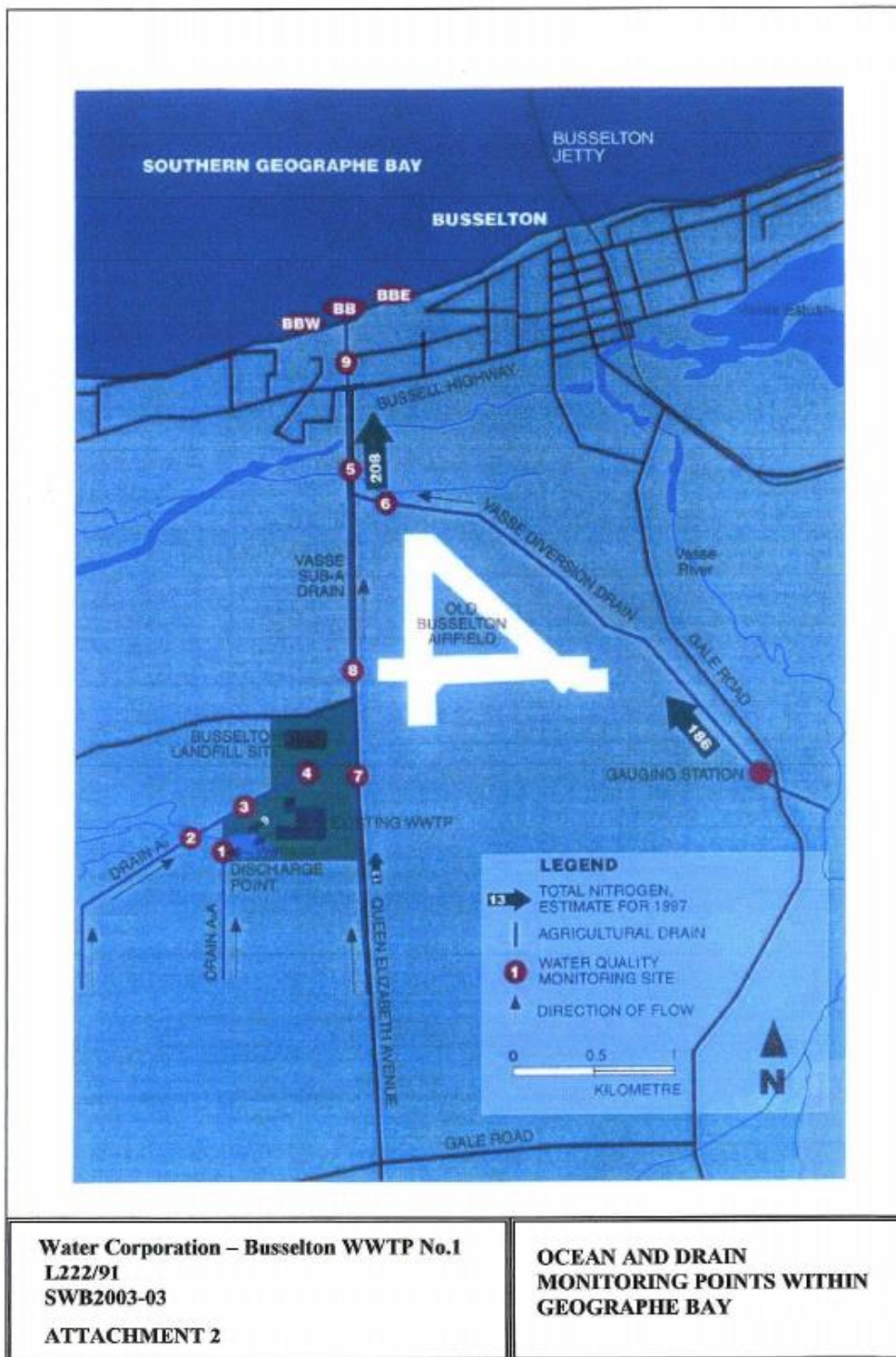


Figure 3: Map of Indian Ocean (Geographe Bay) and drain water quality monitoring points. Monitoring points are shown in purple.

Schedule 2: Premises boundary

The corners of the premises boundary are the coordinates listed in Table 9.

Table 9: Premises boundary coordinates (GDA1994)

	Easting	Northing
1.	115.3132	-33.6867
2.	115.3161	-33.6851
3.	115.3245	-33.6851
4.	115.3248	-33.6899
5.	115.3132	-33.6899