Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L5989/1991/12
Licence holder	Water Corporation
Registered business address	John Tonkin Centre 629 Newcastle Street LEEDERVILLE WA 6007
DWER file number	2010/003537-1
Duration	04/12/2024 to 03/12/2029
Date of issue	03/12/2024
Premises details	Northam Water Resource Recovery Facility Crown Reserve 25729 Legal description - Lot 29316 on Deposited Plan 221054 Lot 500 and Lot 501 on Deposited Plan 76392 NORTHAM WA 6401

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**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 into waters.	1,500 m^3 per day

This licence is granted to the licence holder, subject to the attached conditions, on 3 December 2024, by:

Abbie Crawford

Digitally signed by Abbie Crawford
Date: 2024.12.03 10:08:05 +08'00'

Abbie Crawford

MANAGER, WASTE INDUSTRIES

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

Licence history

Date	Reference number	Summary of changes
01/10/2000	L5989/1991/4	Licence granted
01/12/2001	L5989/1991/5	Licence granted
01/12/2002	L5989/1991/6	Licence granted
04/12/2003	L5989/1991/7	Licence granted
04/12/2004	L5989/1991/8	Licence granted
04/12/2005	L5989/1991/9	Licence granted
03/12/2007	L5989/1991/10	Licence granted
02/12/2010	W4791/2010/1	Works Approval granted for installation of a UV disinfection unit
26/07/2012	L5989/1991/10	Licence amended to include UV disinfection unit
04/12/2012	L5989/1991/11	Licence granted
19/12/2013	L5989/1991/11	Licence amendment to extend due date for NIMP to from 30 December 2013 to 30 June 2014
26/04/2016	L5989/1991/11	Notice of Amendment of Licence Expiry Dates to extend expiry to 3 December 2022.
23/12/2019	W6224/2019/1	Works Approval granted for increase in approved design throughput to 2,000 m^3 per day, lining the ponds, reconfiguring and upgrading the pond system to improve quality of discharges.
16/05/2022	L5989/1991/11	Notice of Amendment of Licence Reporting Requirements to reduce the frequency of environmental reporting from annual to biennial, commencing 1 October 2022 and biennially thereafter. Notice of Amendment of Licence Reporting Requirements to amend the reporting date for the AACR to 1 October 2022 and annually thereafter.
28/11/2022	L5989/1991/11	Licence Amendment to extend the expiry date for 12 months to enable preparation for the Licence Renewal and alter the premises name to be Northam Waste Resource Recovery Facility.
21/11/2023	L5989/1991/11	DWER initiated Licence Amendment to extend the expiry date for 12 months to enable assessment of the Licence Renewal application.
03/12/2024	L5989/1991/12	Licence renewal and alter the premises name to be Northam Water Resource Recovery Facility.

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 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
Water Resource Recovery Facility (WRRF) consisting of: (a) Primary treatment infrastructure (Figure 2): (i) grit channel; (ii) primary sedimentation tanks 1 and 2; (iii) three sludge digesters; (iv) four sludge drying beds; and (v) a hardstand with three biosolids storage bays; (b) Secondary treatment infrastructure (Figure 3): (i) Secondary treatment ponds 1, 2 and 3; (ii) Polishing pond 4; and (iii) Geobag drying area.	(a) Operated and maintained to receive and treat a wastewater inflow of up to 1,500 m^3 per day. (b) Flow metres at the inlet to the WRRF, the Shire Pond outlet and to the Flume Outflow are to be maintained and calibrated in accordance with the manufacturer's specifications. (c) Wastewater treatment ponds to be managed in a manner such that: (i) Stormwater runoff resulting from site drainage shall be prevented from entering the wastewater treatment ponds and from causing erosion of the outer pond embankments; (ii) Overtopping of the wastewater treatment ponds into the environment does not occur; (iii) Seepage loss from the wastewater treatment ponds is less than or equal to $1x10^{-9}$ m/sec; and (iv) Vegetation, emergent or otherwise, shall be prevented from growing on the pond wastewaters or on the inner pond embankments.
Shire pond	To be maintained as free of leaks and defects.
Drying beds	To be maintained as free of leaks and defects.
UV disinfection unit	To be maintained in good working order.
Chlorination unit	To be maintained as free of leaks and defects and in good working order.
Flume outflow	To be maintained in good working order.
Groundwater monitoring bores MW8; MW9; MW10; MW11; MW12; MW13; MW14; MW16; MW20; MW26; (as depicted in Figure 6)	To be maintained in good working order to allow representative water samples to be taken

2. The licence holder shall immediately recover, or remove and dispose of, spills of environmentally hazardous materials including sewage, sewage sludge, alum and hypochlorite whether inside or outside an engineered containment system.

Waste acceptance and processing

3. The licence holder must only accept onto the premises waste of a waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 2.

Table 2: Types of waste authorised to be accepted onto the premises

Waste type	Controlled waste code	Rate at which waste is received	Acceptance specification
Sewage	N/A	1,500 m^3 per day (as a monthly average)	Accepted through sewer inflows only.
Sewage waste from the reticulated sewerage system	K130	Less than 100 tonnes per annual period	Tankered onto the premises and discharged into the primary treatment plant.
Imhoff tank waste	N/A	Less than 500 tonnes per annual period	Must be in a spadeable state prior to acceptance.

4. The licence holder must ensure that where waste does not meet the waste acceptance criteria set out in condition 3, it is removed from the premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.

5. The licence holder must ensure that the waste types specified in Table 3 are only subjected to the corresponding processes, process limits and/or specifications.

Table 3: Waste processing

Waste type	Processes	Process limits and/or specifications
Sewage	Physical and biological treatment	Treatment of sewage must not exceed the treatment capacity of 1,500 m^3 per day (as a monthly average)
Sewage sludge	Storage prior to off-site disposal	Sewage sludge from infrastructure located at the primary premises is to be contained within geobags and stored within the sludge drying beds at the primary premises. Sewage sludge from infrastructure located at the secondary premises is to be contained within geobags and stored within the geobag drying area at the secondary premises. Imhoff tank waste is to be contained within geobags and stored within the hardstand bays at the primary premises. Leachate is to be returned to the treatment system. Dried sludge and dried Imhoff tank waste is to be disposed of at a premises authorised to receive sewage sludge or biosolids waste.
Imhoff tank waste		

Emissions

6. The licence holder must ensure that the emission specified in Table 4 is discharged only from the corresponding discharge points, at the discharge locations and subjected to the corresponding specifications.

Table 4: Authorised discharge points to land and water

Emission	Discharge point	Discharge specifications
Treated wastewater	Exit from UV disinfection unit directed to the Shire Pond	Discharges are to be primarily to the Shire of Northam reuse network.
	Exit from UV disinfection unit directed to the Flume outflow to Avon River	Discharges to the Avon River are limited to those surplus to the requirements of the Shire of Northam reuse scheme.

7. The licence holder must ensure that treated wastewater is only discharged from the discharge point in accordance with the limits specified in Table 5.

Table 5: Emission limits for discharges to water

Discharge point	Parameter	Concentration limit
Exit from UV disinfection unit directed to the Flume outflow to Avon River	Total phosphorus	< 1.0 mg/L (arithmetical mean, measured over 3 out of 4 consecutive sampling periods)
	E. coli	< 1000 cfu/100 mL

Monitoring

8. The licence holder must ensure that:

(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;

(b) all surface water sampling is conducted in accordance with AS/NZS 5667.6;

(c) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;

(d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;

(e) all microbial samples are collected and preserved in accordance with AS/NZS 2031;

(f) all sample analysis must be undertaken by laboratories with current accreditation from the National Association of Testing Authorities (NATA) for the relevant parameters, unless indicated otherwise in the relevant table.

9. The licence holder must ensure that:

(a) monitoring is undertaken in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months;

(b) monitoring is undertaken in each quarterly period such that there are at least 30 days in between the days on which samples are taken in successive quarters;

10. The licence holder must ensure that all monitoring equipment used to comply with conditions 12, 13, 14 and 15 are operated and calibrated in accordance with the manufacturer's specifications.

11. 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.

12. The licence holder must undertake the monitoring of inputs and outputs in accordance with Table 6, at the monitoring points depicted in Figure 4 and Figure 5.

Table 6: Monitoring of inputs and outputs

Input/Output	Monitoring Point	Parameter	Unit	Averaging period	Frequency
Sewage	Inflow measuring unit	Volumetric flow rate (cumulative)	m^3 per day	Monthly	Continuous
Sewage (tankered)	N/A	Weight	Tonnes	N/A	Per Load
Imhoff tank waste	N/A	Weight	Tonnes	N/A	Per Load
Treated wastewater	Outflow to Shire reuse	Volumetric flow rate (cumulative)	m^3 per day	Monthly	Continuous
	Outflow to Flume (discharge channel)	Volumetric flow rate (cumulative)	m^3 per day	Monthly	Continuous
Sludge	N/A	Weight	Tonnes	Each load removed from the WRRF	N/A

13. The licence holder must undertake the monitoring of treated wastewater in accordance with Table 7.

Table 7: Monitoring of treated wastewater

Monitoring point reference	Process description	Parameter	Unit	Frequency
Post-UV Wet Well Sampling Point	Discharge of treated wastewater	*E. coli* [2]	cfu/100mL	Monthly
		pH [1]	pH units	
		5-day Biochemical Oxygen Demand	mg/L	
		Ammonia (NH_4) as N		
		Total Kjeldahl Nitrogen (TKN) as N		
		Nitrate (NO_3) as N		
		Nitrite (NO_2) as N		
		Nitrate + Nitrite as N		
		Total Nitrogen (TN) as N		
		Reactive Phosphorus as P		
		Total Phosphorus (TP) as P		
		Total Dissolved Solids		
		Total Suspended Solids		
		Surfactants		
		Electrical conductivity [1]	µS/cm	Quarterly
		Redox potential [1]	Eh	
		Major cations Calcium, Magnesium, Potassium, Sodium	mg/L	Quarterly
		Major anions Bicarbonate (HCO_3), chloride (Cl), and sulfate (SO_4)	mg/L	Quarterly
		Metals and Metalloids Aluminium, Arsenic, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Vanadium and Zinc.	mg/L	Quarterly

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

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

14. The licence holder must undertake the groundwater monitoring in accordance with Table 8.

Table 8: Groundwater monitoring

Monitoring point reference	Parameter	Unit	Frequency
Groundwater bores: MW8; MW9; MW10; MW11; MW12; MW13; MW14; MW16; MW20; and MW26. (as depicted in Figure 6)	Standing water level [1]	mAHD; mBGL	Quarterly (if groundwater is present)
	pH [1]	pH units	
	E. coli [2]	cfu/100 mL	
	Electrical conductivity [1]	µS/cm	
	Redox potential [1]	Eh	
	5-day Biochemical Oxygen Demand	mg/L	
	Ammonium (NH_4-N)		
	Nitrate + Nitrite as N		
	Total Nitrogen (TN) as N		
	Total Phosphorus (TP) as P		
	Total Dissolved Solids		
	<u>Major cations</u> Calcium, Magnesium, Potassium, Sodium	mg/L	
	<u>Major anions</u> Bicarbonate (HCO_3), chloride (Cl), and sulfate (SO_4)	mg/L	
	<u>Metals and Metalloids</u> Aluminium, Arsenic, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Nickel and Zinc.	mg/L	

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

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

15. The licence holder must undertake the surface water monitoring in accordance with Table 9.

Table 9: Surface water monitoring

Monitoring point reference	Parameter	Unit	Frequency
Surface water locations: Avon R1; Avon R2; Avon R3; Avon R4; and Avon R5; (as depicted in Figure 7)	pH [1]	pH units	Quarterly (if surface water is present)
	E. coli [2]	cfu/100 mL	
	Electrical conductivity [1]	µS/cm	
	Redox potential [1]	Eh	
	5-day Biochemical Oxygen Demand	mg/L	
	Ammonium (NH_4-N)		
	Nitrate + Nitrite as N		
	Total Nitrogen (TN) as N		
	Total Phosphorus (TP) as P		
	Total Dissolved Solids		
	Total Suspended Solids		
	Phenols		
	Surfactants		
	Major cations Calcium, Magnesium, Potassium, Sodium	mg/L	
	Major anions Bicarbonate (HCO_3), chloride (Cl), and sulfate (SO_4)	mg/L	
	Metals and Metalloids Aluminium, Arsenic, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Vanadium and Zinc.	mg/L	

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

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

16. The licence holder must engage the services of a suitably qualified aquatic scientist, to complete the following on or before 4 June 2026:

(a) undertake a review of all available data associated with the premises, including data obtained from monitoring in accordance with condition 13, to characterise the ecological toxicity of treated wastewater discharges;

(b) If there is inadequate data reviewed under condition 16(a) to characterise treated wastewater discharges, undertake a Direct Toxicity Assessment of treated wastewater discharges using a suite of environmentally relevant freshwater species, consistent with the ANZG (2023) guideline;

(c) if necessary, given the magnitude of toxicity determined from condition 16(a) and/or condition 16(b), undertake Toxicity Identification and Evaluation to:

(i) determine the analytes of the treated wastewater that cause toxicity;

(ii) determine the level of treatment and/or dilution required to mitigate the toxic effects of treated wastewater on the Avon River to meet the ANZG (2018) guidelines for a 'high conservation or ecological value system'; and

(iii) if the level of species protection does not meet the ANZG (2018) guidelines for a 'high conservation or ecological value system', provide a detailed explanation for this deviation;

(d) if default value guidelines are unavailable for comparison to data collected under condition 16(a), 16(b) or 16(c), site-specific guideline values may be developed in accordance with the ANZG: *Deriving guideline values using reference-site data* and provide a detailed written explanation for each substitution;

(e) evaluate the resulting toxicant loading to the Avon River and downstream toxicant concentrations; and

(f) determine how the WRRF will achieve the level of treatment required to meet the ANZG (2018) guidelines for a 'high conservation or ecological value system'.

17. On or before 4 December 2025, the licence holder must prepare an updated Nutrient Irrigation Management Plan for the Northam Reuse Area that includes:

(a) a site map showing the location of the irrigated areas relative to key local features such as adjoining properties, drains, remnant vegetation, residences and other services;

(b) a description of the land uses at each location, including details of fertiliser use;

(c) the expected monthly water use budget, including seasonal variations based on evapo-transpiration, rainfall, runoff and infiltration factors;

(d) a description of the soils and landforms including:

(i) contour maps with soil surface types;

(ii) the soil strata defined to two metres below the surface;

(iii) the phosphorus retention index and phosphorus buffer index;

(iv) an evaluation of any acid sulphate soil risk; and

(v) details of any soil amendment, either existing or planned for the sites;

(e) a description of surrounding water resources including:

(i) the Avon and Mortlock rivers and any other local waters resources;

(ii) groundwater description and depth;

(iii) maps and descriptions of any land subject to seasonal or occasional flooding; and

(iv) representative data on the quality of local water resources such as pH, salinity (measured as electrical conductivity), turbidity, concentrations of nutrients (N, P, K) and relevant dissolved trace contaminants such as metals and pesticides;

(f) a description of site irrigation practices including:

(i) source of all irrigation waters;

(ii) details of any water storage tanks, ponds or dams;

(iii) irrigation schedules and seasonal variation and exclusions as determined by the monthly water use budget;

(iv) how irrigation will be managed to avoid runoff, excessive water table mounding and nutrient leaching; and

(v) any pre-treatment of irrigated water;

(g) a description of site nutrient requirements including:

(i) a description of the plants that will be irrigated;

(ii) nutrient demand of the plants; and

(iii) details of any planned mowing regime;

(h) a description of drainage and contaminant leaching controls including:

(i) the design and function of any artificial water controls that are proposed for construction or use such as purpose-built lakes, wastewater stabilisation ponds, wetland filters, drainage balance basins or soakage/evaporation sumps;

(ii) the planned management and monitoring of water bodies likely to be affected by irrigation seepage or runoff, including water balance and water quality assessment;

(iii) the use of earth water diversion banks, land contouring and/ or vegetation filter systems into earthworks design where there is risk of runoff into sensitive waters;

(iv) surface water runoff rate design for both for frequent (annual wet season) rainfall events and extreme events (ten or more year's average return interval), including the volume and destination of calculated surface run-off;

(v) if any storm water runoff will be diverted to storage and how extreme storm events will be managed; and

(vi) the planned management of potential problems such as sodicity, soil compaction and salinity; and

(i) a nutrient and irrigation management plan and environmental monitoring plan including:

(i) metering and recording of irrigation data;

(ii) residual phosphorus retention index and phosphorus buffer index of any amended soils at five year intervals;

(iii) specific tests used to demonstrate the effectiveness of any pre-treatment of irrigated water or any soil amendment practices; and

(iv) recording the use and rates of application of fertilisers.

Records and reporting

18. The licence holder must submit the outcomes of the Avon River investigative monitoring required by condition 16 to the CEO on or before 4 December 2026.

19. The licence holder must submit the revised Nutrient Irrigation Management Plan required by condition 17 to the CEO on or before 4 June 2026.

20. The licence holder must advise the CEO in writing, no less than seventy-two (72) hours prior to taking a treatment pond offline for maintenance works.

21. The licence holder must advise the CEO in writing, no less than fourteen (14) days prior to the removal of sewage sludge from a treatment pond.

22. The licence holder must, within 7 days of becoming aware of any non-compliance with conditions 6 and 7 of this licence, notify the CEO in writing of that non-compliance and include in that notification the following information:

(a) which condition was not complied with and the nature, volume, and characteristics of the non-compliance;

(b) the time and date when the non-compliance occurred;

(c) if any environmental impact occurred as a result of the non-compliance and if so what that impact is and where the impact occurred;

(d) the details and result of any investigation undertaken into the cause of the non-compliance; and

(e) the details of any action or specified measures that have been taken, or will be taken, to prevent the non-compliance occurring again.

23. 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.

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) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;

(c) monitoring programmes undertaken in accordance with conditions 12, 13, 14, 15, 16 and 17 of this licence; and

(d) complaints received under condition 23 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.

26. 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 for that period in the approved form by 1 October each year.

27. The licence holder must:

(a) prepare an Environmental Report that provides information in accordance with Table 10 for the preceding annual period, and

(b) submit that Environmental Report to the CEO by 1 October each year.

Table 10: Environmental reporting requirements

Condition	Requirement
Condition 7 Table 5	Any discharges of wastewater, either treated or untreated, to the environment.
Condition 12 Table 6	A summary of all inputs and outputs to the premises including: (a) sewage, tankered sewage and Imhoff waste inputs to the WRRF; (b) treated wastewater discharged to the Shire reuse scheme; (c) treated wastewater discharged from the Flume Outflow; and (d) sludge removed from the primary and secondary premises.
Condition 13 Table 7	A summary of all treated wastewater monitoring data for all parameters including: (a) an assessment of reliability of field procedures and laboratory results; (b) a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file), with all results being clearly referenced to laboratory certificates of analysis; (c) an explanation of the monitoring data in comparison with past monitoring data collected for the previous four annual periods; (d) calculated contaminant loads in kg/day (except *E. coli*) for discharges monitored at the Post-UV Wet Well Sampling Point on a quarterly and annual basis for the parameters listed in Table 7; (e) calculated contaminant loads for Total Nitrogen and Total Phosphorus in kg/ha/year for discharges to the Shire of Northam reuse network, and a comparison of this load to the discharge rate specified in condition 6, Table 4; (f) an explanation of the contaminant load data in comparison with past monitoring data collected for the previous four annual periods; and (g) trend graphs to provide a graphical representation of historical results.
Condition 14 Table 8	A summary of all groundwater monitoring data for all parameters including: (a) an assessment of reliability of field procedures and laboratory results; (b) a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file), with all results being clearly referenced to laboratory certificates of analysis;

	(c) a diagram with aerial image overlay showing all monitoring locations and depicting groundwater level contours, flow direction and hydraulic gradient, relevant site features including discharge points and other potential sources of contamination; (d) an explanation of the monitoring data in comparison with past monitoring data collected for the previous four annual periods; and (e) trend graphs to provide a graphical representation of historical results.
Condition 15 Table 9	A summary of all surface water monitoring data for all parameters including: (a) an assessment of reliability of field procedures and laboratory results; (b) a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file), with all results being clearly referenced to laboratory certificates of analysis; (c) an explanation of the monitoring data in comparison with past monitoring data collected for the previous four annual periods; and (d) trend graphs to provide a graphical representation of historical results.
Condition 23	The number and type of complaints received, nature of complaint and action taken.

Definitions

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

Table 11: Definitions

Term	Definition
ACN	Australian Company Number
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
ANZG: *Deriving guideline values using reference-site data*	means the Australian and New Zealand Governments 2023, *Deriving guideline values using reference-site data,* available at: https://www.waterquality.gov.au/anz-guidelines/guideline-values/derive/reference-data
ANZG (2018) guideline	means the Australian and New Zealand Governments 2023, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, as amended from time to time, developed under the National Water Quality Management Strategy.
ANZG (2023) guideline	means the Australian and New Zealand Governments 2023, *Guidance on the use of ecosystem receptor indicators for the assessment of water and sediment quality*, as amended from time to time, developed under the National Water Quality Management Strategy.
AS/NZS 2031	means the Australian Standard AS/NZS 2031 *Selection of containers and preservation of water samples for microbiological analysis*.
AS 4482.1	means the Australian Standard AS 4482.1 *Guide to the investigation and sampling of sites with potentially contaminated soil – Non-volatile and semi-volatile compounds.*
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 5667.6	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.*
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of ground waters.*
approved form	means the Annual Audit Compliance Report (AACR) form template approved by the CEO for use and available via DWER's external website.
Biochemical Oxygen Demand	means a water quality indicator which is reported in mg/L of oxygen and is a measure of the amount of oxygen used in the biochemical oxidation of organic matter in wastewater of a slurry and is generally tested over a period of 5 days under specified conditions (referred to as BOD_5).
books	has the same meaning given to that term under the EP Act.

Term	Definition
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
condition	a condition to which the licence is subject under section 62 of the *Environmental Protection Act 1986*
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (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).
high conservation or ecological value system	has the same meaning as defined in the ANZ Guidelines.
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.
monthly period	means a one-month period commencing from the first day of a month until the last day of that same month.
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.
quarterly period	means a three-month period commencing from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December.
suitably qualified aquatic scientist	must hold relevant qualifications from a recognised educational institution and have demonstrated competence in the design and implementation of environment monitoring programs for aquatic systems, including biota, water quality and sediment chemistry indicators, with a minimum of five years of experience working in the field of aquatic science.
waste	has the same meaning given to that term under the EP Act.
WRRF	means Water Resource Recovery Facility.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

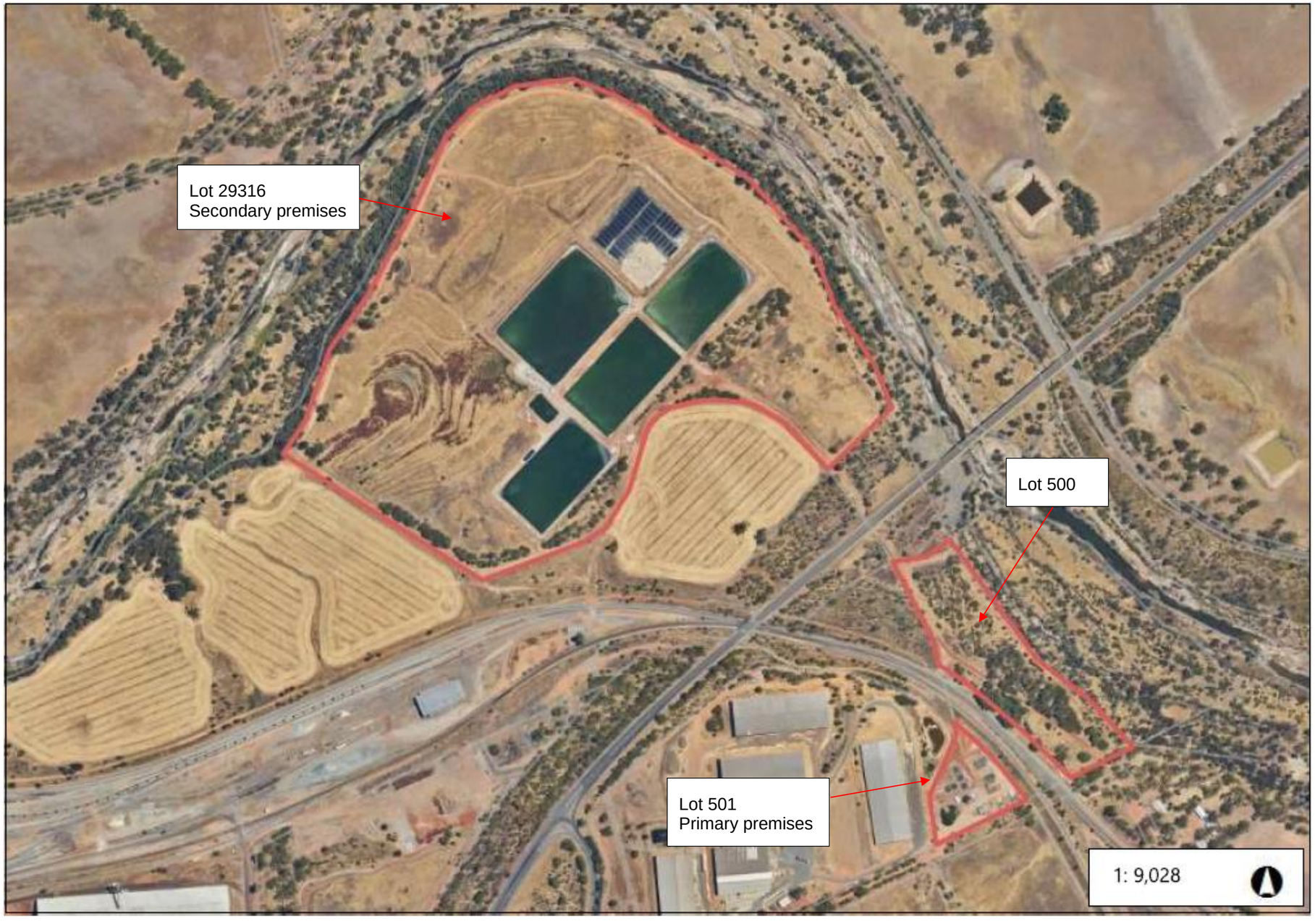

Figure 1: Map of the boundary of the prescribed premises

Infrastructure map

The primary premises infrastructure is shown in the map below (Figure 2).

Figure 2: Map of the infrastructure layout at the primary premises

Infrastructure map

The secondary premises infrastructure is shown in the map below (Figure 3).

Figure 3: Map of the infrastructure layout at the secondary premises

Schematics

The schematic for the primary premises is depicted below (Figure 4).

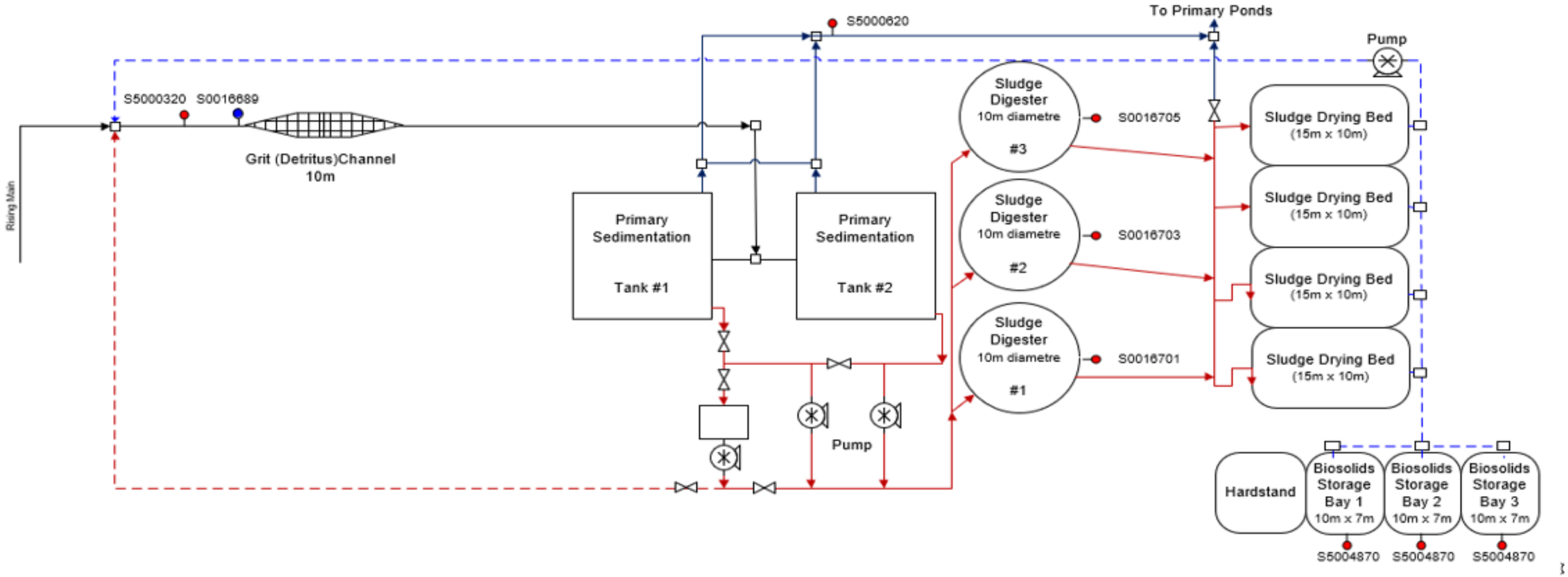

Figure 4: Schematic for the primary premises

The schematic for the secondary premises is depicted below (Figure 5).

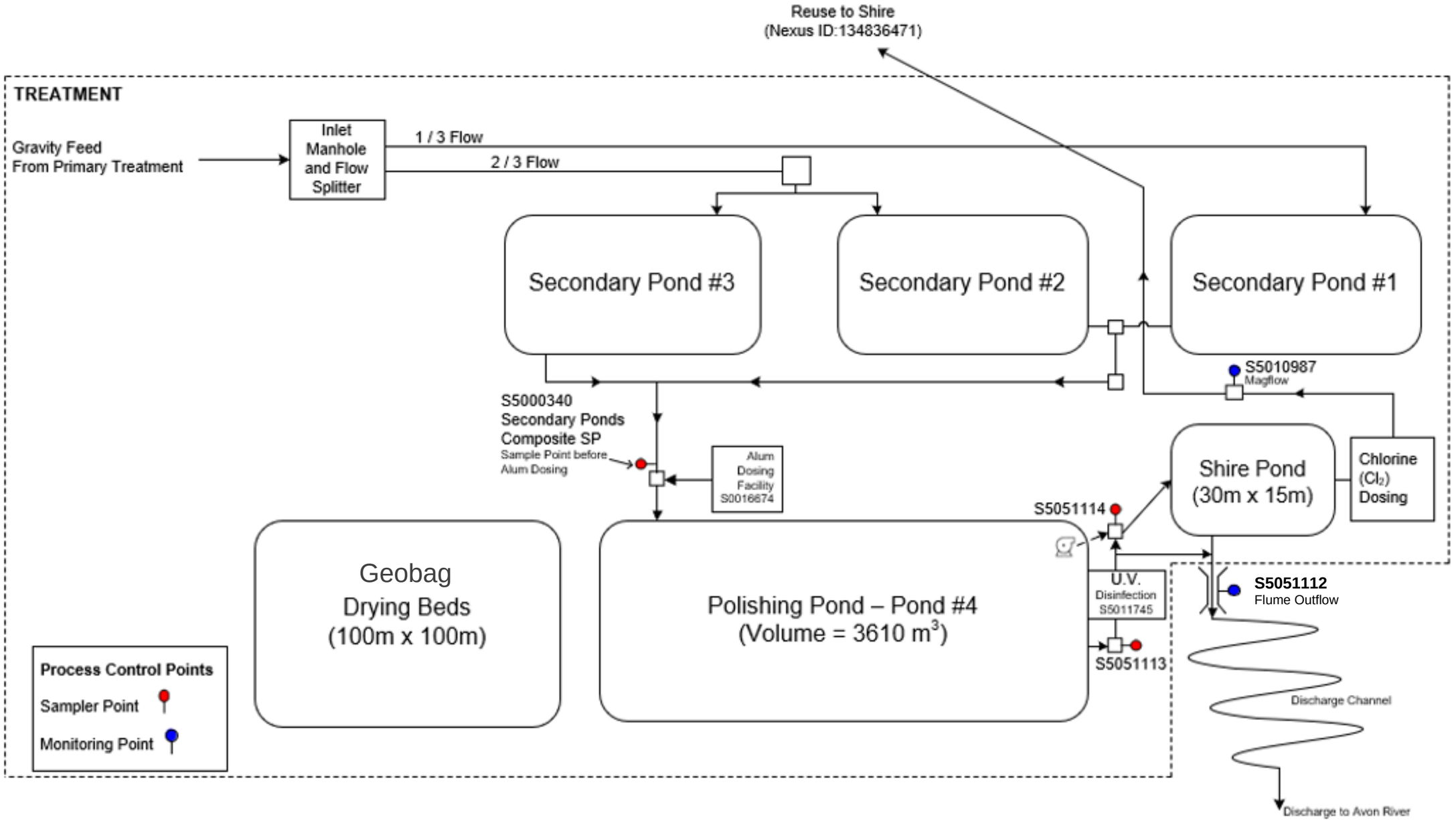

Figure 5: Schematic for the secondary premises

Groundwater monitoring bores

The premises groundwater monitoring bores are shown in the map below (Figure 6).

Figure 6: Groundwater monitoring bores

Surface water monitoring locations

The surface water monitoring locations along the Avon River are shown in the map below (Figure 7).

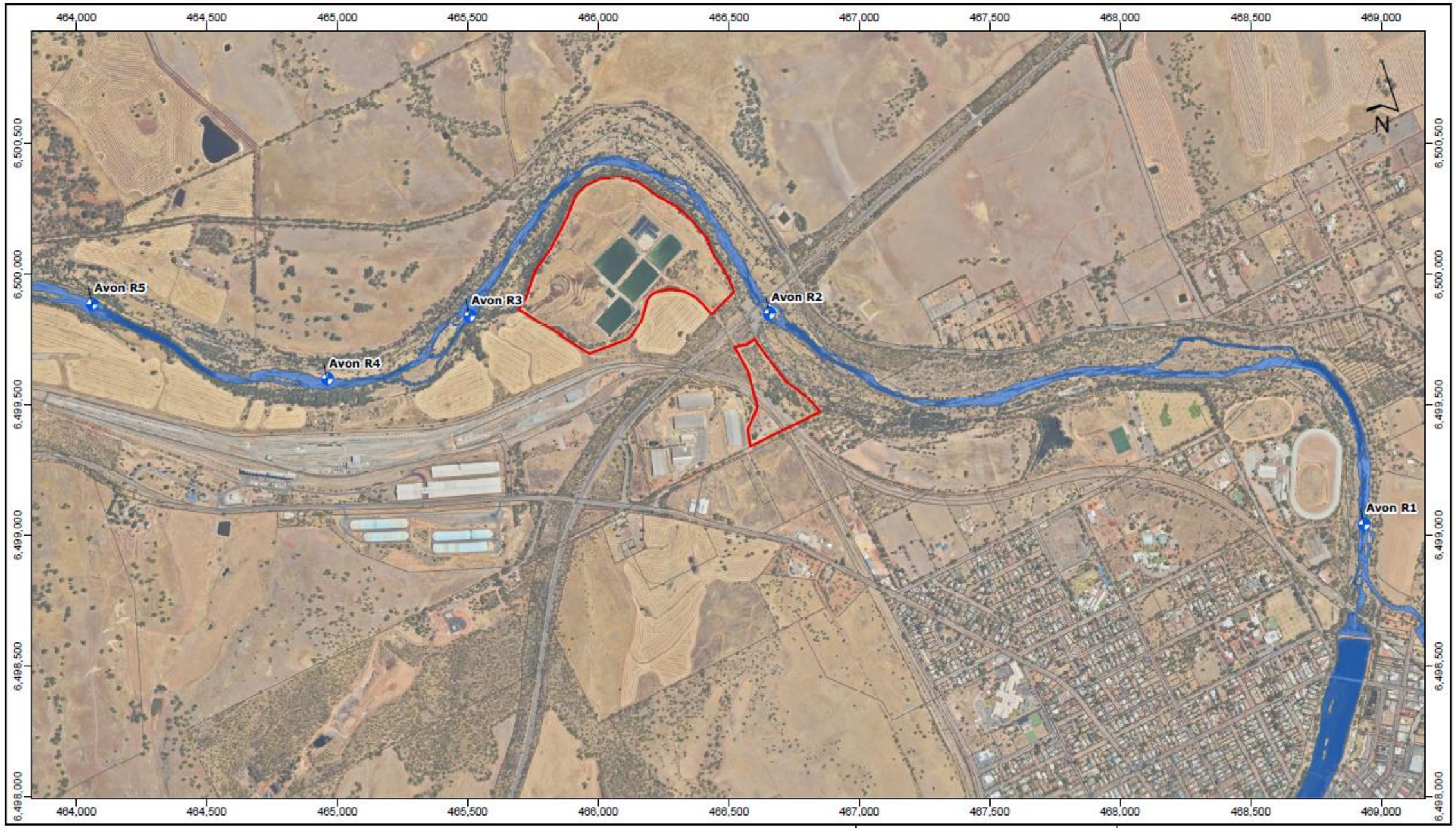

Figure 7: Surface water monitoring locations