



Licence number L9358/2022/1
Licence holder Aquasol Pty Ltd
ACN 157 831 411
Registered business address Suite 10 Level 2
23 Railway Road Subiaco WA 6008
DWER file number DER2021/000510
Duration 30/03/2023 to 29/03/2043
Date of issue 09/10/2023
Premises details
Fairways Village
120 Clubhouse Lane
GNANGARA WA 6077

Legal description -
Part of Lot 5, 6 and 7 Clubhouse Lane
Lot 116 on Survey Strata Plan 77035
Certificate of Title Volume 5992 Folio 747
Certificate of Title Volume 5992 Folio 813
Certificate of Title Volume 5992 Folio 159
As shown in Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production / 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	137 m ³ /day

This licence is granted to the licence holder, subject to the attached conditions, on 09 October 2023, by:

Steve Checker
MANAGER WASTE INDUSTRIES
REGULATORY SERVICES

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

[L9358/2022/1 \(Amendment Date: 09/10/2023\)](#)

Licence history

Date	Reference number	Summary of changes
1/03/2018	W6034/2017/1	Works Approval granted
30/03/2023	L9358/2022/1	Licence granted
09/10/2023	L9358/2022/1	Licence amendment to increase Production and Design Capacity from 130 m ³ /day to 137 m ³ /day

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:

Waste acceptance

1. The licence holder must only accept onto the premises waste of a type that:
 - (a) does not exceed the rate at which that waste is received; and
 - (b) meets the relevant acceptance specification, as set out in Table 1.

Table 1: Waste acceptance criteria

Waste type	Rate at which waste is received	Acceptance specifications
Sewage	137 m ³ /day	Accepted via sewerage inflow

Waste processing

2. The licence holder must ensure that the waste types specified in Table 2 are only subjected to the corresponding processes, and subject to the corresponding process specifications as set out in Table 2.

Table 2: Waste processing

Waste type	Processes	Process limits and specifications
Sewage from Lakelands Golfview Estate Retirement Village	Biological and physical treatment prior to disposal via irrigation area.	a) Must not process more than 137 m ³ /day; b) Directed to the 3.8 ha Irrigation Spray Field for disposal; and c) Final treated effluent irrigation storage tanks (2 x 100 kL) capable of storing all wastewater not able to be discharged to the Irrigation Spray Field.
Sewage sludge	Removal prior to offsite disposal	Have a sealed connection point for pumping-out tank sludge for offsite disposal to a licensed waste facility.
Grit screenings and	Removal, dewatering and temporary storage prior to offsite disposal	Screenings are contained within a sealed bin prior to removal for disposal to a licensed disposal facility.

Infrastructure and equipment

3. The licence holder must ensure that the site infrastructure and equipment listed in Table 3 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 3.

Table 3: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Irrigation Spray Field	<ul style="list-style-type: none"> a) Minimum area of 3.8 ha b) Not more than 5 L/day/m² of effluent applied per day to the designated Irrigation Spray Field; c) Irrigation is managed to prevent ponding and pooling of effluent on the ground surface of the Irrigation Spray Field; d) No irrigation effluent is permitted to runoff or discharge beyond the Irrigation Spray Field; e) Irrigation of effluent is not undertaken when rainfall is imminent, during, or immediately after a rainfall event; f) No soil erosion occurs; g) Vegetative cover is maintained over the Irrigation Spray Field; h) Irrigation system valves, pumps, pipelines and other fittings must be maintained and inspected daily for ruptures or leaks when irrigating; and i) Restrict public access to the Irrigation Spray Field area. 	As shown in Schedule 1 Premises map
WWTP and Pipeline	<ul style="list-style-type: none"> a) Treat effluent to the following output emission standard: <ul style="list-style-type: none"> (i) Biochemical Oxygen Demand ≤20 mg/L; (ii) Total Suspended Solids ≤30 mg/L; (iii) Total Nitrogen ≤10 mg/L; (iv) Total Phosphorus ≤0.5 mg/L; (v) pH 6.5-8.5; and (vi) E. coli <10 cfu/100 mL b) Volumetric flow meters are maintained on the WWTP inlet and outlet to the Irrigation Spray Field; c) Biosolids and sludge are disposed off-site at a licensed waste facility; d) Effluent is piped to the two 100 kL storage tanks prior to irrigation; e) Air from the treatment tanks is conducted through the wet 	As shown in Schedule 1 Premises map

Site infrastructure and equipment	Operational requirement	Infrastructure location
	<p>scrubbing system before release to the atmosphere;</p> <p>f) The scrubber stack discharge point is not less than 6 m high;</p> <p>g) All sewage storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks or defects;</p> <p>h) Integrity of the bunded hardstand is maintained;</p> <p>i) The four overflow collection pits must be clear of solids at all times to ensure they have capacity to capture any overflow;</p> <p>j) The tanks have a buffer capacity of 440 kL equal to 4.9 days of winter operation and 280 kL, equal to 2.1 days of summer operation;</p> <p>k) Chemicals must be stored separately within an above ground vessel/s located on a hardstand enclosed by bunds with a holding capacity of 110% of the total vessel/s contents;</p> <p>l) Chemicals must be stored in accordance with Australian Standard AS3780; and</p> <p>m) All control and electrical alarms must be functional to ensure parameter targets are achieved prior to irrigation at the Irrigation Spray Field.</p>	

Emissions and discharges

General

4. The licence holder must immediately recover or remove and dispose of spills of sewage, or other waste material discharged outside of an engineered containment system.
5. The licence holder must ensure that all material used for recovery, removal, and/or disposal in accordance with condition 4 is stored in an impermeable container prior to disposal at an appropriately authorised facility.
6. The licence holder must ensure that the emission specified in Table 4, is discharged only from the corresponding discharge points and only at the corresponding discharge point location.

Table 4: Authorised discharge points during operations

Emission	Discharge point	Discharge point location
WWTP effluent	Sprinklers within the Irrigation Spray Field	Irrigation Spray Field as shown in Schedule 1 Premises map.

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

Table 5: Irrigation emission limits

Discharge point	Parameter	Concentration limit	Loading limit
Sprinklers within the Spray Irrigation Field	Total nitrogen	10 mg/L	125.3 kg/ha/yr
	Total phosphorus	0.5 mg/L	5 kg/ha/yr

8. The licence holder shall ensure that odour emitted from the premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the premises.

Monitoring

Waste acceptance and removal

9. The licence holder must undertake the monitoring in Table 6 according to the specifications in Table 6.

Table 6: Monitoring of waste acceptance and removal

Accepted/Removed ¹	Waste type	Unit	Averaging period
Waste accepted	Sewage	m ³ /day or kL/D	Monthly (cumulative)
Waste removed	Sewage sludge ¹	kg	Yearly
	Waste type as defined in the Landfill Definitions		

Note 1: Additional requirements under the *Environmental Protection (Controlled Waste) Regulations 2004* may apply

Treated wastewater discharge to land

- 10.** The licence holder must monitor emissions and discharges to land in accordance with the requirements in Table 7.

Table 7: Emissions and discharge monitoring to land

Discharge point	Monitoring location	Parameter	Unit	Frequency	Method
WQ1 – Final effluent monitoring point as specified in Schedule 1 Monitoring location	WWTP outlet	<i>E. coli</i>	CFU/100mL	Weekly	Spot sample, in accordance with AS/NZS 5667.10
		Thermotolerant coliforms			
		Biochemical Oxygen Demand	mg/L		
		Total suspended solids			
		Total nitrogen			
		Total phosphorus			
		Total dissolved solids			
		Ammonium nitrogen			
		Nitrate + nitrite + nitrogen			
		pH	pH units		
	Cumulative flow volume discharged to the Irrigation Spray Field	m³/day	Continuous	n/a	

Ambient groundwater monitoring

11. The licence holder must monitor groundwater for concentrations of the identified parameters in accordance with Table 8.

Table 8: Ambient groundwater monitoring

Monitoring well location	Parameters	Unit	Frequency	Method
Bores: WTP01 WTP02 BH03 as specified in Schedule 1 Groundwater monitoring locations	SWL	mBGL and mAHD	Monthly	Spot sample, in accordance with AS/NZS 5667.11
	pH	pH units		
	TDS	mg/L		
	TN			
	TKN			
	NH ₄ -N			
	NO _x -N			
	TP			
	Cu			
	Fe			
	Mn			
	Zn			
	Cl			
	<i>E. coli</i>	CFU/100mL		

General

12. The licence holder must ensure that all sample analysis undertaken pursuant to condition 10 and 11 is completed by a holder of a current accreditation from NATA for the methods of analysis relevant to the corresponding parameter, unless indicated otherwise in Table 7 and Table 8.
13. The licence holder must ensure that:
- monitoring is undertaken in each weekly period such that there are at least 4 days in between the days on which samples are taken in successive weeks; and
 - 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.

14. The licence holder must ensure that all monitoring equipment used to comply with condition 10 and 11 is operated and calibrated in accordance with the manufacturer's specifications.
15. The licence holder shall, 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.

Records and reporting

16. 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.
17. 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 by 31 July in each year an Annual Audit Compliance Report in the approved form.
18. The licence holder must submit to the CEO by 31 July in each year, an Annual Environmental Report for the preceding annual period for the conditions listed in Table 9, and which provides information in accordance with the corresponding requirements set out in Table 9.

Table 9: Annual Environmental Report

Conditions	Requirements
-	A summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period, including any actions taken.
1, 2 and 3	A summary of inspections and maintenance performed to address the specifications in Table 1 and Table 2 and the operational requirements in Table 3 during the annual period.
1	Summary of any treatment capacity target exceedances and any action taken.
9	A summary of the waste acceptance and removal at the premises presented in table format.
10	<ul style="list-style-type: none"> (a) Tabulated monitoring data results and time-series graphs showing concentrations of all parameters over a minimum three-year period (where sufficient data allows); (b) Contaminant loading (kg/day and kg/ha/year – monthly average) to land of the parameters listed in Table 5; and (c) An assessment and interpretation of the data, including comparison to historical trends and loading rates listed in Table 5 for TN and TP respectively.

Conditions	Requirements
11	<p>(a) 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;</p> <p>(b) A diagram with aerial image overlay showing all monitoring locations and depicting groundwater level contours and flow direction (relevant site features including discharge points and other potential sources of emissions must also be shown);</p> <p>(c) An interpretive summary and assessment of the results against relevant assessment levels for surface water and groundwater, as published in the <i>Guideline Assessment and management of contaminated sites</i>;</p> <p>(d) An interpretive summary and assessment of results against previous monitoring results; and</p> <p>(e) Trend graphs to provide a graphical representation of historical results and to support the interpretive summary.</p>
16	A summary of complaints received, and any action taken to investigate or respond to any complaint.

19. 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 3 of this licence;
- (c) monitoring programmes undertaken in accordance with conditions 9, 10 and 11 of this licence; and
- (d) complaints received under condition 16 of this licence.

20. The books specified under condition 19 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 9 have the meanings defined.

Table 9: 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	a 12 month period commencing from 1 July until 30 June of the immediately following year.
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 <i>Water Quality – Sampling – Guidance on sampling of waste waters</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water quality - Sampling - Guidance on sampling of groundwaters</i>
averaging period	means the time over which a limit is measured or a monitoring result is obtained
books	has the same meaning given to that term under the EP Act.
BOD	Biochemical Oxygen Demand
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.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)

Term	Definition
<i>E. coli</i>	<i>Escherichia coli</i>
Hardstand	means a surface with a permeability of 10-9 metres/second or less
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.
mAHD	metres Australian Height Datum
mBGL	metres below ground level
mg/L	milligrams per litre
ml	millilitres
NATA	National Association of Testing Authorities
NH ₄ -N	ammonium as nitrogen
NO _x -N	nitrate plus nitrite as nitrogen
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
SWL	Standing water level
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TN	Total nitrogen
TP	Total phosphorus
waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises map

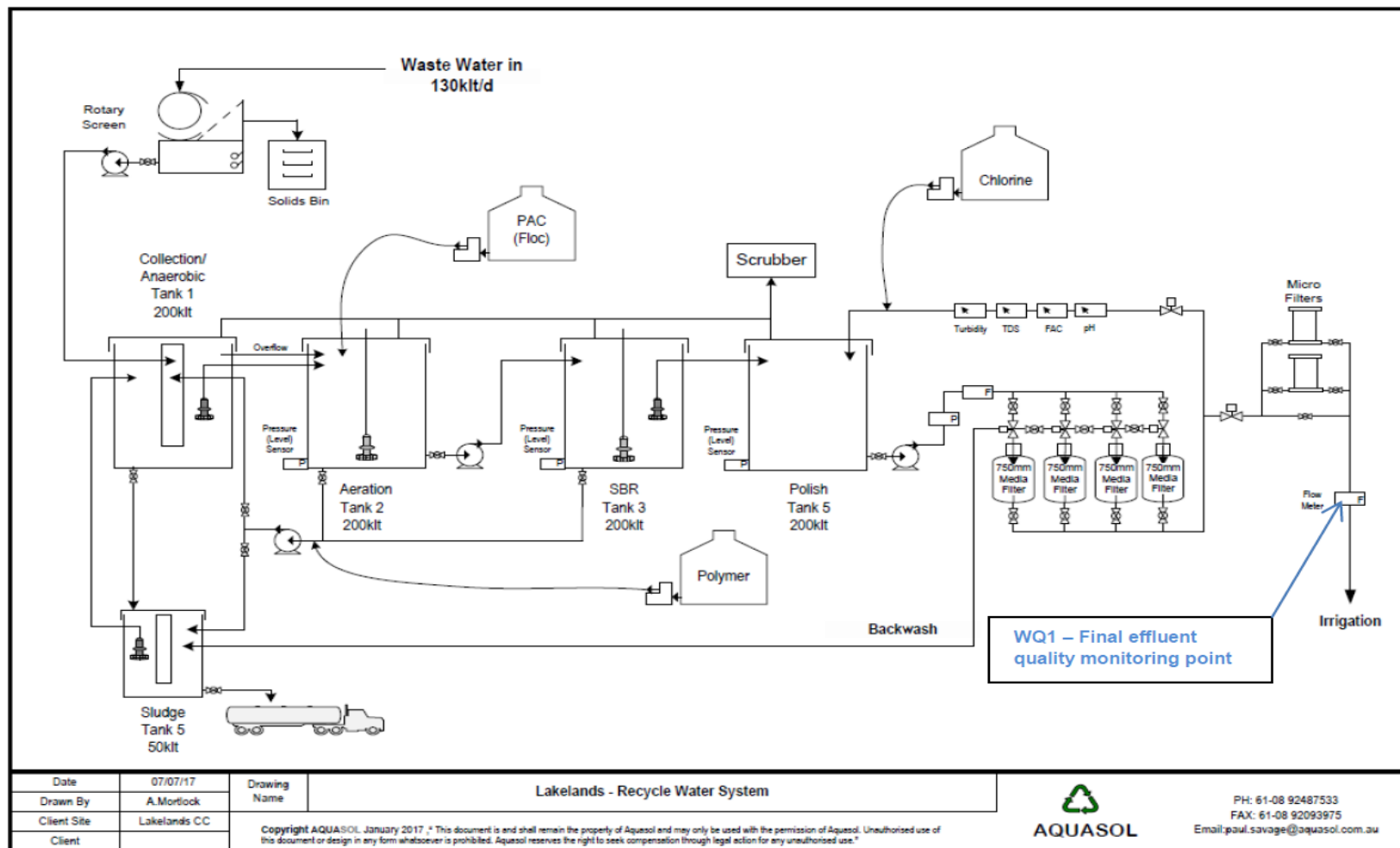
The boundary of the prescribed premises is shown by the red line in the map below.



L9358/2022/1 (Amendment Date: 09/10/2023)

IR-T06 Licence template (v7.0) (February 2020)

Monitoring Location – Treated wastewater final effluent monitoring point



L9358/2022/1 (Amendment Date: 09/10/2023)

Map of Groundwater monitoring locations

The locations of the groundwater monitoring points are shown in the map below.



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