



Licence number	L9393/2023/1
Licence holder	Oasis @ Newman Pty Ltd
ACN	612 951 710
Registered business address	Australis Capital Management Pty Ltd Suite 2 44 Dennis Street SUBIACO WA 6008
DWER file number	DER2023/000353
Duration	04/12/2023 to 04/12/2043
Date of issue	04/12/2023
Premises details	Oasis @ Newman 44 Great Northern Highway NEWMAN WA 6753 Legal description - Lot 44 on Deposited Plan 171724

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 into waters.	250 m ³ per day

This licence is granted to the licence holder, subject to the attached conditions, on 4 December 2023, by:

Abbie Crawford

A/MANAGER, WASTE INDUSTRIES

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

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Licence history

Date	Reference number	Summary of changes
22/03/2022	W6586/2021/1	Works Approval granted
04/12/2023	L9393/2023/1	Licence granted

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

Infrastructure and equipment	Operational requirement
Wastewater Treatment Plant (WWTP)	<p>Operated and maintained to receive and treat a wastewater inflow of up to 250 m³ per day.</p> <p>Maintained in accordance with AS/NZS 1547/2012.</p> <p>WWTP to be maintained free of leaks and defects.</p> <p>Permeability of the solids disposal bin to be maintained at $<1 \times 10^{-9}$ m/s.</p> <p>The sump that collects leachate and returns leachate to the Balance Tank to be maintained as free of leaks and defects.</p> <p>Five 450 mm Media Filter tanks, two 1 micron cartridge filter tanks and two UV Aquapro 179 sterilisers to be maintained in accordance with the manufacturer's specifications.</p> <p>Flow meters at the inlet and outlet points to be maintained and calibrated in accordance with the manufacturer's specifications.</p> <p>Sludge drying bags to meet AS 3668.1989.</p>
Sea containers	<p>Floor to be maintained as free of leaks and defects.</p> <p>The polyethylene bund enclosing the floor is to be maintained in accordance with the manufacturer's specifications.</p>
Epoxy liner	<p>To be maintained on the floor and up to a height of 30 cm up the walls of all sea containers, and around all internal join welds where pipes enter or leave a sea container and to be maintained in accordance with the manufacturer's specifications.</p>
Chemical storage	<p>The impermeable polyethylene storage tanks for flocculants and chlorine are to be maintained as free of leaks and defects and in accordance with the manufacturer's specifications.</p>
Irrigation area and irrigation system ¹	<p>A minimum separation distance of 100 m must be maintained between the existing groundwater bore used for drinking water supply, and the installed location of the irrigation system.</p> <p>Pipeworks and fittings constructed of polyethylene to be maintained in accordance with with <i>AS2698: Plastics pipes and fittings for irrigation and rural applications</i>.</p> <p>UPVC pipes and fittings must not be used.</p> <p>Burial of pipework laterals to be maintained at a depth of at least 150 mm</p>

Infrastructure and equipment	Operational requirement
	<p>and the irrigation system shall be permanently fixed.</p> <p>Pipework and fittings shall be maintained to withstand a minimum of 150% of the shut-off head of the irrigation pump.</p> <p>Irrigation system valves, pumps, pipelines, and other fittings must be maintained and inspected daily for ruptures or leaks when irrigating.</p> <p>Landscaping of the disposal area shall be maintained to prevent pooling and run-off of irrigation waters.</p>
Reverse osmosis (RO) plant	<p>Plant and associated pipelines to be maintained as free of leaks and defects.</p> <p>The volumetric flow meter is to be maintained and calibrated in accordance with the manufacturer's specifications.</p>
Groundwater monitoring bores	<p>To be maintained in accordance with the manufacturer's specifications.</p>

Note 1: *Code of Practice for the Design, Manufacture, Installation and Operation of Aerobic Treatment Units* (Department of Health, 2015)

2. The licence holder must immediately recover, or remove and dispose of, spills of environmentally hazardous materials including sewage, sewage sludge and brine from the reverse osmosis plant, whether inside or outside an engineered containment system.
3. The licence holder must take all reasonable measures to prevent stormwater run-off becoming contaminated by the activities and operations undertaken at the premises.
4. The licence holder must ensure that the waste types specified in Table 2 are only subjected to the corresponding processes and process requirements described in Table 2.

Table 2: Waste processing

Waste Type	Process	Process Requirements
Sewage	Physical and biological treatment	Treatment of sewage must not exceed the treatment capacity of 250 m ³ per day (as a monthly average).
Blended effluent	Irrigation of blended effluent	Disposal of blended effluent by irrigation to the gardens and lawns within the Premises boundary (as depicted in Figure 2 of Schedule 1).
Sewage sludge	Storage and processing	<p>To be stored within sludge drying bags.</p> <p>Sludge leachate to be returned to the start of the treatment process.</p> <p>Removal of sludge to a premises authorised to receive sewage sludge or biosolids waste, and to be transported by a licensed carrier.</p>

Emissions and discharges

5. Blended effluent must not be discharged to land via irrigation during inclement weather.
6. The licence holder must ensure that the emission specified in Table 3 is discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 3: Authorised discharge points

Emission	Discharge Point	Discharge Point Location
Blended effluent	Subsurface drip irrigation infrastructure within the premises boundary	Outflow to irrigation area within premises boundary (as depicted in Figure 2 of Schedule 1).

7. The licence holder must ensure that emissions from the discharge point listed in Table 4 do not exceed the corresponding limits, when monitored in accordance with condition 13.

Table 4: Emission limits

Discharge point	Parameter	Process Limit
Subsurface drip irrigation infrastructure within the irrigation area	<i>E. Coli</i>	<10 cfu/100 mL
	Turbidity	<5 NTU
	pH	6.5 – 8.5
	Free chlorine residual	0.2 – 2.0 mg/L

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 wastewater sampling is conducted in accordance with AS/NZS 5667:10;
 - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667:11;
 - (d) all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
 - (e) 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.
9. The licence holder must ensure that monitoring is undertaken:
 - (a) in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months; and
 - (b) in each quarterly period such that there are at least 45 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 and 14 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 monitor inputs and outputs in accordance with Table 5.

Table 5: Monitoring of inputs and outputs

Input/Output	Monitoring Point	Parameter	Unit	Averaging Period	Frequency
Sewage	Inflow point to WWTP	Volumetric flow rate (cumulative)	m ³ per day	Monthly	Continuous
Blended effluent discharged to the irrigation network	Outflow point from the WWTP to the drip irrigation infrastructure	Volumetric flow rate (cumulative)	m ³ per day	Monthly	Continuous
Sludge	N/A	Weight	Tonnes	Each load removed from the wastewater treatment plant	N/A

13. The licence holder must undertake the monitoring in accordance with Table 6.

Table 6: Process monitoring

Monitoring Point reference	Process Description	Parameter	Unit	Frequency
WWTP Outlet	Discharge of blended effluent from WWTP outlet	Cumulative flow volume	m ³ /hr	Continuous
		pH ¹	pH units	
		Residual chlorine ¹	mg/L	
		Turbidity	NTU	
		<i>E. coli</i> ²	cfu/100mL	Monthly
		Total coliforms		
		Electrical conductivity ³	µS/cm	Monthly
		Redox potential	Eh	
		5 day Biochemical Oxygen Demand	mg/L	
		Total Suspended Solids	mg/L	
		Total Dissolved Solids		
		Total phosphorus		
		Total nitrogen		
		Nitrate		
		<u>Major ions</u> Calcium, Carbonate, Potassium, Magnesium, Sodium, Sulfate		
<u>Metals and Metalloids</u> Aluminium, Antimony, Arsenic, Beryllium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silicon, Silver, Strontium, Thorium, Tin, Titanium, Uranium, Zinc	mg/L	Monthly		

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.

Note 3: In field, non-NATA accredited analysis and NATA accredited analysis required.

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14. The licence holder must undertake ambient groundwater monitoring in accordance with Table 7.

Table 7: Ambient groundwater monitoring

Monitoring Point	Parameter	Unit	Frequency
Three groundwater monitoring bores: MW01; MW02; and MW03 (as depicted in Figure 3 of Schedule 1)	Standing water level ¹	mAHD; mBGL	Quarterly
	pH ¹	pH units	
	<i>E. coli</i> ²	cfu/100 mL	
	Electrical conductivity ³	µS/cm	
	Redox potential	Eh	
	5 day Biochemical Oxygen Demand	mg/L	
	Total Suspended Solids		
	Total Dissolved Solids		
	Total phosphorus		
	Total nitrogen		
	Nitrate+Nitrite nitrogen		
	Ammonium (NH ₄ -N)		
	Phenols		
	<u>Major ions</u> Calcium, Carbonate, Potassium, Magnesium, Sodium, Sulfate	mg/L	
	<u>Metals and Metalloids</u> Aluminium, Antimony, Arsenic, Beryllium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silicon, Silver, Strontium, Thorium, Tin, Titanium, Uranium, 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.

Note 3: In field, non-NATA accredited analysis and NATA accredited analysis required.

Records and reporting

- 15.** 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.
- 16.** 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 in the approved form by 30 September each year.
- 17.** 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 and 14 of this licence; and
 - (d) complaints received under condition 15 of this licence.
- 18.** The books specified under condition 17 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.

- 19.** The licence holder must:
- (a) prepare an environmental report that provides information in accordance with Table 8 for the preceding annual period, and
 - (b) submit the environmental report to the CEO by 30 September each year.

Table 8: Environmental reporting requirements

Condition	Requirement
-	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
Condition 1 Table 1	Summary of any treatment capacity exceedances and any action taken.
Condition 12 Table 5	Monitoring of inputs and outputs: (a) volumes in m ³ presented in tabulated form.
Condition 13 Table 6	Results from process monitoring: (a) data in tabulated and graphical form including the sample date; (b) an assessment and interpretation of the data, including loading limits specified in condition 7 table 4 and a comparison to historical trends over the previous three annual periods; and (c) copies of laboratory sample analysis reports.
Condition 14 Table 7	Ambient groundwater monitoring: (a) data in tabulated and graphical form including the sample date; (b) an assessment and interpretation of the data, including loading limits specified in condition 7 table 4 and a comparison to historical trends over the previous three annual periods; and (c) copies of laboratory sample analysis reports.
-	A comparison of the process monitoring data against the ambient groundwater monitoring data, with a comparison to historical trends over the previous three annual periods.
Condition 15	Complaints
Condition 16	Compliance

20. The licence holder must ensure that the parameters listed in Table 9 are notified to the CEO in accordance with the notification requirements of Table 9.

Table 9: Notification requirements

Condition or Table	Parameter	Notification Requirement 1	Format or Form
-	Breach of any limit specified in the licence	As soon as practicable but not later than 5 pm of the next usual working day.	None specified
-	Desludging event	No less than 14 days prior to any desludging event, advise: (a) the dates that desludging is intended to occur; (b) the method by which the wastewater treatment plant is to be desludged; and (c) the proposed action to mitigate potential impacts of odour emissions.	Written notice
-	Taking process equipment offline for maintenance works that may result in increased odour emissions	No less than 72 hours in advance of works.	None specified
-	Groundwater bores being decommissioned or rendered useless for monitoring purposes	Within 14 days	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with section 72 of the Act.

Definitions

In this licence, the terms in Table 10 have the meanings defined.

Table 10: 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.
approved form	means the Annual Audit Compliance Report (AACR) form template approved by the CEO for use and available via DWER's external website.
AS 3668.1989	means the Standards Australia AS 3668.1989 Flexible intermediate bulk containers—Non-dangerous goods.
AS 2698	means the Standards Australia AS 2698 Plastics pipes and fittings for irrigation and rural applications.
AS/NZS 1547/2012	means the Standards Australia and Standards New Zealand AS/NZS 1547.2012 On-site domestic wastewater management.
AS/NZS 5667:1	means the Standards Australia and Standards New Zealand 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 Standards Australia and Standards New Zealand AS/NZS 5667.10 Water Quality – Sampling – Guidance on sampling of waste waters.
AS/NZS 5667:11	means the Standards Australia and Standards New Zealand AS/NZS 5667.11 Water Quality – Sampling – Guidance on sampling of groundwaters.
blended effluent	means a mixture of treated effluent produced by the wastewater treatment and reverse osmosis brines.
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 <i>Environmental Protection Act 1986</i> 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 <i>Environmental Protection Act 1986</i>
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994 (WA)</i> 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 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
inclement weather	means weather which is stormy or rainy.
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.
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.
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 in the map below (Figure 1). The Fortescue River is indicated by the blue polygon.



Figure 1: Map of the boundary of the prescribed premises

Irrigation map

The irrigation area within the premises boundary is shown in the map below (Figure 2).

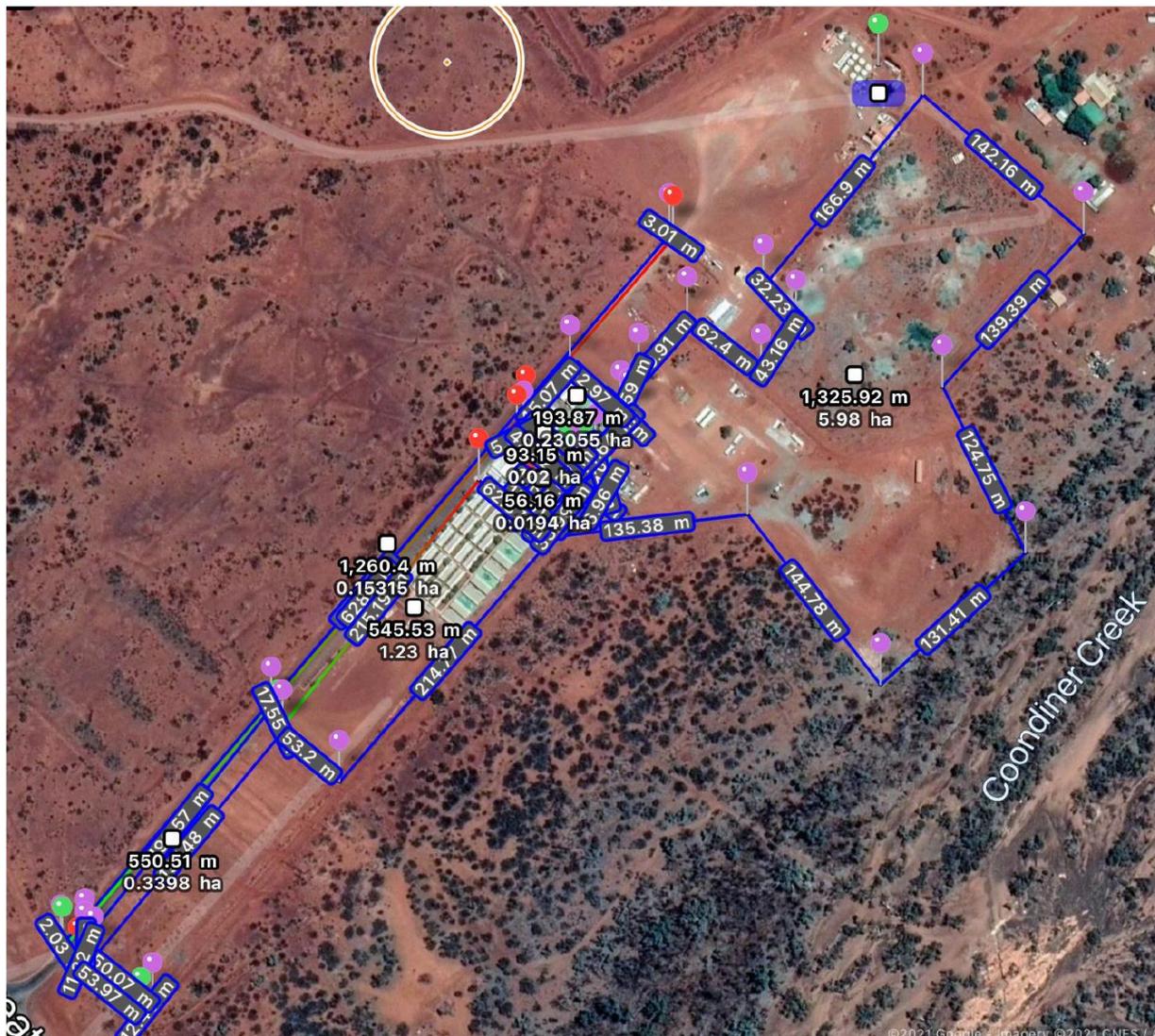


Figure 2: Map of the irrigation area

Groundwater monitoring bores



Figure 3: Groundwater monitoring bore locations

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