



Licence

Environmental Protection Act 1986, Part V

Licence Holder: Water Corporation

Licence: L9094/2017/1

Registered office: 629 Newcastle Street
LEEDERVILLE WA 6007

Premises address: Broome North Water Resource Recovery Facility
Lot 1502 on Plan 75036 Crab Creek Road
ROEBUCK WA 6725
as depicted in Schedule 1.

Issue date: 22 September 2017

Amendment date: 22 December 2021

Expiry date: 21 September 2037

Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
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.	100 cubic metres or more per day	3 500 cubic metres per day
61	Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated.	100 tonnes or more per year	1 200 tonnes per annual period

Conditions

This Licence is subject to the conditions set out in the attached pages.

**MANAGER WASTE INDUSTRIES
REGULATORY SERVICES**

Officer delegated under section 20
of the *Environmental Protection Act 1986*

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Introduction

This Introduction is not part of the Licence conditions.

DWER's industry licensing role

The Department of Water and Environment Regulation (DWER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DWER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licence Holder the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the Western Australian Legislation website using the following link: <https://www.legislation.wa.gov.au/>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.



Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

The construction of the Premises was approved by DWER under works approval W4531/2009/1. Construction commenced in 2009 and was proposed for completion via a staged approach. A partial compliance document was provided to DWER in April 2011 for the construction of the sewage treatment ponds and the tanker receivable bay. An operating licence (L8556/2011/1) was therefore issued to the Licence Holder in July 2011 which allowed for storage and processing of wastewater to commence at the Premises. A final compliance document was received in September 2012 for the remaining irrigation pump station, pipe work and chlorination unit constructed under W4531/2009/1.

The proposal for the Premises is a three-staged operation occurring over a span of 35 years and works approval W4531/2009/1 was issued for Stage One only. Stage One has a design capacity of 3.5ML/day of wastewater which is over the threshold of 100m³/day for Schedule 1, Category 54 of the *Environmental Protection Regulations 1987*.

Construction of Stage 2 works was approved by DWER in April 2021 under works approval W6451/2020/1. The premises will have a design capacity of 4.77 ML/day of wastewater when the Stage 2 works are complete. Stage Three upgrades will be undertaken at a later date and will require a separate application to DWER.

The Premises currently consists of three ponds, one Facultative Treatment Pond (Primary), one Maturation Treatment Pond (Secondary) and one Treated Wastewater Storage Pond, as well as two pivot irrigation areas and a native vegetation seedling irrigation area. The Premises also contains a tanker receivable facility where septage from septic tanks is disposed via a tanker facility into the wastewater pond system. The Premises map in Schedule 1 shows the layout of Stage 1 of the Premises.

As per requirements of the original works approval, a Nutrient Irrigation Management Plan (NIMP) was provided and approved by DWER for the Premises. The Premises irrigates treated wastewater from the wastewater treatment plant (WWTP) to land, which is regulated by licence conditions. The pivot irrigation area is to the north of the WWTP and is currently comprised of two pivots with the capacity for additional pivots to be installed in the future. A native vegetation seedling irrigation area is also located to the south of the WWTP.

The average irrigation rate will remain at around 20.9ML/ha/yr for each stage. The species to be irrigated in the pivot irrigation areas is a crop of Rhodes Grass, selected for its ability to uptake high levels of nitrogen and phosphorus. The crop will be regularly harvested as a way of removing nutrients from the irrigation system.

The Licence Holder has also dedicated 17.91 hectares (ha) of the Premises to the Mamabulanjin Aboriginal Corporation (MAC) to establish seedlings which will be utilised as a seed bank, or for future rehabilitation works in the area. To assist with the establishment of the seedlings, MAC irrigates the seedlings with treated wastewater (TWW).

The nearest sensitive receptor is Morrell Park Aboriginal Community settlement located about 1.4km west of the north-western corner of the Premises. The Broome Common Stockyards are located about 600m west of the Premises boundary. An "Essential Services Buffer" has been established to provide an odour buffer around the Premises to ensure that future urban encroachment does not compromise the buffer zone. The Environmental Protection Authority's *Separation Distances between Industrial and Sensitive Land Uses No. 3* does not recommend a buffer distance for WWTPs, which are to be determined on a case-by-case basis.



An industrial area is located approximately 2km north of the site, which includes the potential future location of the Broome International Airport.

New Licence - 2017

Licence (L9094/2017/1) replaces the former Licence (L8556/2011/1). L8556/2011/1 ceased to have effect after fee payment was only received 30 days after the anniversary date (3 July 2017) of the Licence. This resulted in the issuing of a new (replacement) instrument. This Licence also includes conditions imposed under Amendment Notice 1 issued in February 2017.

The licences and works approvals issued for the Premises since 3/07/2017 are:

Instrument log		
Instrument	Issued	Description
L9094/2017/1	22 September 2017	Application for a new Licence. L8556/2011/1 ceased to have effect due to non-payment of fees within required time frame (3 July 2017).
W6451/2020/1	23 April 2021	Works approval for Stage 2 upgrades including reconfiguration of ponds, installation of new inlet screens, construction of a sludge dewatering system, construction of a new pivot irrigation system (Pivot 3) and changes to the associated wastewater conveyance infrastructure.
L9094/2017/1	22 December 2021	Amendment to pond freeboard conditions and removal of groundwater monitoring for the Broome Sandstone aquifer.

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986*;

'AHD' means the Australian height datum;

'Annual Audit Compliance Report' means a report in a format approved by the CEO as presented by the Licence Holder or as specified by the CEO from time to time and published on the Department's website;

'annual period' means a 12 month period commencing from 1 July until 30 June in the following year;

'AS/NZS 2031' means the Australian Standard AS/NZS 2031 *Selection of containers and preservation of water samples for microbiological analysis*;

'AS/NZS 4439.1' means the Australian Standard AS 4439.1 *Wastes, sediments and contaminated soils – Preparation of leachates – Preliminary assessment*;

'AS/NZS 4482.1' means the Australian Standard AS 4482.1 *Guide to the investigation and sampling of sites with potentially contaminated soil Part 1: 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 5667.10' 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 groundwaters*;

'averaging period' means the time over which a limit is measured or a monitoring result is obtained;

'CEO' means Chief Executive Officer of the Department of Water and Environmental Regulation;

'CEO' for the purposes of notification means:

Director General
Department Administering the *Environmental Protection Act 1986*
Locked Bag 10
JOONDALUP DC WA 6919
info@dwer.wa.gov.au

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'Department' means the department established under s.35 of the Public Sector Management Act and designated as responsible for the administration of Division 3 Part V of the *Environmental Protection Act 1986*.

'freeboard' means the distance between the maximum water surface elevations and the top of retaining embankments or spillways at their lowest point;



'Guideline: Assessment and management of contaminated sites' means the document published by the Department titled *Guideline: Assessment and management of contaminated sites*;

'hardstand' means a surface with a permeability of 10⁻⁹ metres/second or less;

'Licence' means this Licence numbered L9094/2017/1 and issued under the Act;

'Licence Holder' means the person or organisation named as Licence Holder on page 1 of the Licence;

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'Pivot Irrigation Area' means irrigation area comprising Pivot 1 and Pivot 2 as depicted in Schedule 1;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated; and

'Seedling Irrigation Area' means irrigation area located between the southern boundary of the Premises and treatment ponds as depicted in Schedule 1.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 Premises operation

1.2.1 The Licence Holder shall ensure stormwater runoff resulting from site drainage is prevented from entering the wastewater treatment ponds or causing erosion of the outer pond embankments.

1.2.2 The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit in this section.

1.2.3 The Licence Holder shall only allow waste to be accepted on to the Premises if:

- (a) it is of a type listed in Table 1.2.1;
- (b) the quantity accepted is below any limit listed in Table 1.2.1; and
- (c) it meets any specification listed in Table 1.2.1.

Table 1.2.1: Waste acceptance			
Waste	Waste Code	Quantity Limit	Specification
Sewage	K130	3 500 m ³ per day	Accepted through sewer inflow(s) and tankered waste only
Septage	K210	1 200 tonnes per annual period	Septage Receiving Pit.

1.2.4 The Licence Holder shall ensure that the wastes accepted onto the Premises are only subjected to the process(es) set out in Table 1.2.2 and in accordance with any process limits described in that table.

Table 1.2.2: Waste processing		
Waste type	Process	Process requirements
Sewage	Biological, physical and chemical treatment	Treatment of sewage waste shall not exceed the treatment capacity of 3 500 m ³ per day.
Septage	Biological, physical and chemical treatment	Treatment of tankered septage waste shall not exceed the treatment capacity of 1 200 tonnes per annual period.
Sewage sludge	Storage	In accordance with the document titled 'Western Australian guidelines for biosolids management' (Department of Environment and Conservation 2012) as amended from time to time.
Treated wastewater	Disposal to Pivot Irrigation Area	Disposal to irrigation area with fast growing, harvestable fodder crop cover. Ensure there is no ponding or pooling of irrigated water in the irrigation area. No run-off of treated effluent outside the irrigation area is to occur.
Treated wastewater	Disposal to Seedling Irrigation Area	Disposal to irrigation area with planted native seedlings.

1.2.5 The Licence Holder shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.2.3.

Table 1.2.3: Containment infrastructure		
Vessel or compound	Material	Requirements
Inlet screen	Grit and Screenings	Stored in a sealed bin which is surrounded by a bunded hardstand area which returns sludge leachate to the start of the treatment process.
Tanker receivable bay	Septage waste	A bunded, hardstand area capable of preventing surface run-off of leachate and septage and which returns septage leachate to the start of the treatment process.
Facultative Treatment Pond (Primary Pond)	Wastewater	Lined partly with concrete and an impermeable (1 x 10 ⁻⁹ m/sec) liner (clay liner).
Maturation Treatment Pond (Secondary Pond)	Wastewater	Lined with ELCOSEAL: X2000 (a geosynthetic clay liner manufactured from polypropylene geotextiles and sodium bentonite powder to achieve a permeability of 2 x 10 ⁻¹¹ m/sec) or equivalent.
Storage Pond (Storage Dam)	Treated wastewater	Lined with ELCOSEAL: X2000 (a geosynthetic clay liner manufactured from polypropylene geotextiles and sodium bentonite powder to achieve a permeability of 2 x 10 ⁻¹¹ m/sec) or equivalent.
Sludge Drying Beds	Sewage sludge	Two bunded, concrete areas with a sand filter capable of preventing surface run-off of leachate and sludge and which returns sludge



		leachate to the start of the treatment process.
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- 1.2.6 The Licence Holder shall manage all wastewater treatment ponds such that:
- overtopping of the ponds does not occur;
 - a top of embankment freeboard equal to, or greater than, 500 mm is maintained on the Facultative Treatment Pond and the Maturation Treatment Pond;
 - a spillway freeboard equal to, or greater than 470 mm is maintained at the Storage Pond;
 - the integrity of the containment infrastructure is maintained;
 - trapped overflows are maintained on the outlet of ponds to prevent carry-over of surface floating matter; and
 - vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.
- 1.2.7 The Licence Holder shall manage the irrigation of treated wastewater such that:
- bunding/cut-off drains are maintained around the Pivot Irrigation Area such that run-off is recirculated back into the wastewater treatment system;
 - no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the defined irrigation area(s);
 - treated wastewater is evenly distributed over the irrigation area;
 - no soil erosion occurs;
 - irrigation does not occur on land that is waterlogged; and
 - vegetation cover is maintained over the irrigation area.
- 1.2.8 The Licence Holder shall:
- implement security measures at the site to prevent as far as is practical unauthorised access to the site;
 - undertake regular inspections of all security measures and repair damage as soon as practicable; and
 - ensure the entrance gates are closed and locked when the site is closed or unmanned.
- 1.2.9 The Licence Holder shall dispose of grit, screenings, sludge and biosolids to a licensed landfill facility.

2 Emissions

2.1 Emissions to land

- 2.1.1 The Licence Holder shall ensure that where waste is emitted to land from the emission points in Table 2.1.1 and identified on the Premises map in Schedule 1, it is done so in accordance with the conditions of this Licence.

Table 2.1.1: Emissions to land		
Emission point reference	Description	Source including abatement
Discharge to Pivots 1 and 2 as depicted in Schedule 1	Discharge to Pivot Irrigation Area via wastewater discharge point	Treated wastewater pipeline from wastewater treatment plant
Discharge to Seedling Irrigation Area as depicted in Schedule 1	Discharge to Seedling Irrigation Area via wastewater discharge point	Treated wastewater pipeline from wastewater treatment plant



2.1.2 The Licence Holder must ensure that treated wastewater discharged to the irrigation field does not exceed limits specified in Table 2.1.2.

Table 2.1.2: Emission limits to land			
Monitoring point reference	Parameter	Discharge limits	Units
Discharge to Reuse S3002406 and S3002405	Total Nitrogen	< 500	kg/ha/year
	Total Phosphorous	< 224	kg/ha/year

3 Monitoring

3.1 General monitoring

3.1.1 The Licence Holder shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
- (c) all 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;
- (e) all soil samples are collected and preserved in accordance with AS/NZS 4482.1 and leachates prepared in accordance with AS/NZS 4439.1; and
- (f) all 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.

3.1.2 The Licence Holder shall ensure that :

- (a) monthly monitoring is undertaken at least 15 days apart; and
- (b) quarterly monitoring is undertaken at least 45 days apart.

3.1.3 The Licence Holder shall ensure that the flow meters used on the Premises to comply with the conditions of this Licence are maintained and calibrated in accordance with the manufacturer's specifications and the requirements of the Licence.

3.1.4 The Licence Holder shall maintain the monitoring locations referred to in Tables 3.4.1 and 3.4.2 of this licence to allow representative samples to be collected.

3.1.5 Where the requirements for sampling, calibration or maintenance cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, the Licence Holder shall bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of emissions to land

3.2.1 The Licence Holder shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of emissions to land			
Monitoring point reference	Parameter	Units	Frequency
Effluent Trans PS S3002405	Oil and Grease	mg/L	Monthly
	pH	pH units	
	Total Dissolved Solids calculated from Electrical Conductivity	mg/L	
	Total Suspended Solids	mg/L	
	Total Nitrogen as N	mg/L	
	Total Phosphorus	mg/L	
	Biochemical Oxygen Demand	mg/L	



Table 3.2.1: Monitoring of emissions to land

Monitoring point reference	Parameter	Units	Frequency
	Nitrate Nitrogen	mg/L	
	Ammonium Nitrogen	mg/L	
	Total Kjeldahl Nitrogen	mg/L	
	Filterable Reactive Phosphorous	mg/L	
	<i>E. coli</i>	CFU/100ml	
	pH ¹	pH units	
	Arsenic	mg/L	
	Cadmium	mg/L	
	Copper	mg/L	
	Chromium	mg/L	
	Lead	mg/L	
	Mercury	mg/L	
	Nickel; and	mg/L	
	Zinc	mg/L	
Discharge to Reuse S3002406 (as depicted in Schedule 1: Maps)	Total Residual Chlorine	mg/L	
	<i>E. coli</i>	CFU/100ml	
	Total Nitrogen as N	mg/L	
	Total Phosphorous	mg/L	

Note 1: In field non-NATA accredited analysis permitted

3.3 Monitoring of inputs and outputs

3.3.1 The Licence Holder shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Monitoring of inputs and outputs

Input/Output	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Sewage - Inlet Flow	Inlet Flow Meter	Volumetric flow rate (cumulative)	m ³ per day	Monthly	Continuous
Treated wastewater discharged to the Pivot Irrigation Area	Effluent Flow Meter	Volumetric flow rate (cumulative)	m ³ per day	Monthly	Continuous
Treated wastewater discharged to the Seedling Irrigation Area	Effluent Flow Meter	Volumetric flow rate (cumulative)	m ³ per day	Monthly	Continuous

3.4 Ambient environmental quality monitoring

3.4.1 The Licence Holder shall undertake the monitoring in Tables 3.4.1 and Table 3.4.2 according to the specifications in those tables.

Table 3.4.1: Monitoring of ambient soil quality

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
1; 2; 3; 4; 5; 6; and 7. (as depicted in Schedule 1: Maps)	pH ¹ ;	pH units	Spot sample	Quarterly
	Total Dissolved Solids;	mg/kg		
	Total Nitrogen;	mg/kg		
	Total Phosphorus; and	mg/kg		
	Copper	mg/kg		

Note 1: In field non-NATA accredited analysis permitted



Table 3.4.2: Monitoring of ambient groundwater quality				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
Monitoring bores; 1/10; 3/10; 5/10; 7/10; 9/10; 13/10; 15/10; 17/10; 19/10; 10/12; 1/20; 2/20; 3/20; 4/20; and 5/20. (as depicted in Schedule 1: Maps)	Total Dissolved Solids calculated from Electrical Conductivity;	mg/L	Spot sample	Quarterly
	Total Nitrogen;	mg/L		
	Ammonium- Nitrogen;	mg/L		
	Nitrate + Nitrite-Nitrogen;	mg/L		
	Total Phosphorus;	mg/L		
	Standing Water Levels ¹ ;	AHD		
	pH ¹ ;	pH units		
	Arsenic;	mg/L		
	Cadmium;	mg/L		
	Copper;	mg/L		
	Chromium;	mg/L		
	Lead;	mg/L		
	Mercury;	mg/L		
	Nickel; and	mg/L		
Zinc.	mg/L			

Note 1: In field non-NATA accredited analysis permitted

4. Information

4.1 Records

4.1.1 All information and records required by the Licence shall:

- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.

4.1.2 The Licence Holder shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.



4.1.3 The Licence Holder shall complete an Annual Audit Compliance Report indicating the extent to which the Licence Holder has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

4.1.4 The Licence Holder shall:

- (a) implement a complaints management system that shall record the following information (if known or provided) about complaints received at the Premises concerning any environmental impact of the activities undertaken at the Premises:
 - (i) name and address of the complainants (if consented);
 - (ii) date and time of complaint;
 - (iii) date and time of alleged incident;
 - (iv) alleged source of the incident;
 - (v) general description of the alleged incident, including any environmental or health impacts reported by the complainant;
 - (vi) wind direction, wind speed and temperature at time of alleged incident;
 - (vii) likely source of the alleged incident; and
 - (viii) actions taken by the Licence Holder to address the complaint, including the outcome of any investigation(s) and action(s) to verify any impacts.
- (b) complete an annual analysis and review of complaints recorded under 4.1.4(a) to identify any common factors and root cause of complaints and proposals to address these.

4.2 Reporting

4.2.1 The Licence Holder shall submit to the CEO an Annual Environmental Report within 93 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table, which was collected during the annual period.

Table 4.2.1: Annual 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
Table 1.2.1	Waste acceptance	Tabular and graphical
Table 1.2.2	Waste processing	Tabular and graphical
Table 3.2.1	Monitoring of emissions to land Contaminant loading to land of parameters (total annual loading kg/ha/yr for nitrogen and phosphorus, average daily loading kg/ha/day for BOD) for S3002406 and S3002405.	Tabular and graphical
Table 3.3.1	Monitoring of inputs and outputs	Tabular and graphical
Table 3.4.1	Monitoring of ambient soil quality	Tabular and graphical
Table 3.4.2	Monitoring of ambient groundwater quality	As specified in condition 4.2.2(g)
4.1.3	Compliance	Annual Audit Compliance Report (AACR) – available at http://www.dwer.wa.gov.au
4.1.4 (b)	Complaints analysis and review	None specified

4.2.2 The Licence Holder shall ensure that the Annual Environmental Report also contains:

- (a) an assessment of the information contained within the report, against monitoring results and Licence limits that were collected over the previous three annual periods;



- (b) cumulative monthly volumes (in cubic metres) of treated effluent discharged to the Pivot Irrigation Area during the annual period, in tabular and graphical format;
- (c) calculation of the annual nutrient loading rates applied to the Pivot Irrigation Area during the annual period, and discussion of those rates in relation to the estimated volume of nutrients exported (from harvested biomass) from the premises during the annual period;
- (d) any changes to site boundaries, location of groundwater monitoring bores, surface drainage channels and on-site or off-site impacts or pollution that occurred during the annual period;
- (e) quantities of sludge removed during each desludging event that occurred during the annual period;
- (f) a summary of controlled waste dockets including the calculation of the cumulative monthly volume of controlled waste accepted into the premises during the annual period; and
- (g) for the ambient groundwater monitoring required by condition 3.4.1:
 - (i) a clear statement of the scope of work carried out;
 - (ii) a description of the field methodologies employed;
 - (iii) a summary of the field and laboratory quality assurance / quality control (QA/QC) program;
 - (iv) copies of the field monitoring records and field QA/QC documentation;
 - (v) an assessment of reliability of field procedures and laboratory results;
 - (vi) 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;
 - (vii) 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 must also be shown);
 - (viii) an interpretive summary and assessment of the results against relevant assessment levels for water, as published in the Guideline: Assessment and management of contaminated sites;
 - (ix) an interpretive summary and assessment of results against previous monitoring results;
 - (x) trend graphs to provide a graphical representation of historical results and to support the interpretive summary.

4.2.3 The Licence Holder shall submit the information in Table 4.2.2 to the CEO according to the specifications in that table.

Table 4.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form
-	Copies of original monitoring reports submitted to the Licence Holder by third parties	Not Applicable	Within 14 days of the CEO's request	As received by the Licence Holder from third parties

4.3 Notification

4.3.1 The Licence Holder shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.



Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form
Condition 3.1.5	Calibration report	As soon as practicable.	None specified
-	Taking process equipment offline for maintenance works	No less than 72 hours in advance of works	None specified
-	Removal of sewage sludge from a treatment pond, wastewater treatment vessel, sewage sludge storage pond or Geobag.	No less than 14 days in advance of works	The following information shall be included: (i) when desludging is proposed to occur; (ii) the desludging method; (iii) action to mitigate potential odour impacts; and (iv) the method by which the community will be advised of the desludging activities.
Condition 1.2.3 and 2.1.2	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next working day Part B: As soon as practicable	None specified

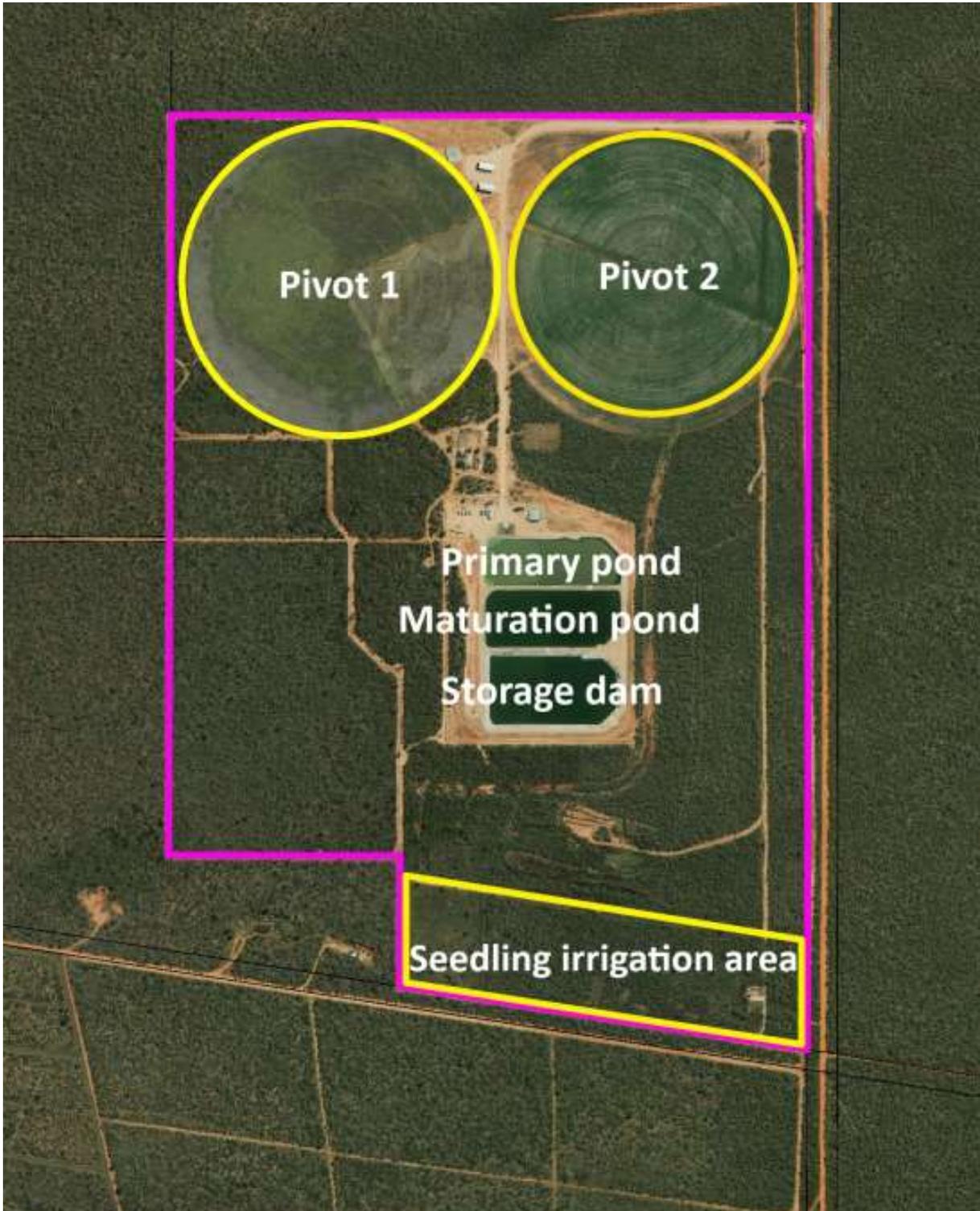
Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act



Schedule 1: Maps

Premises map

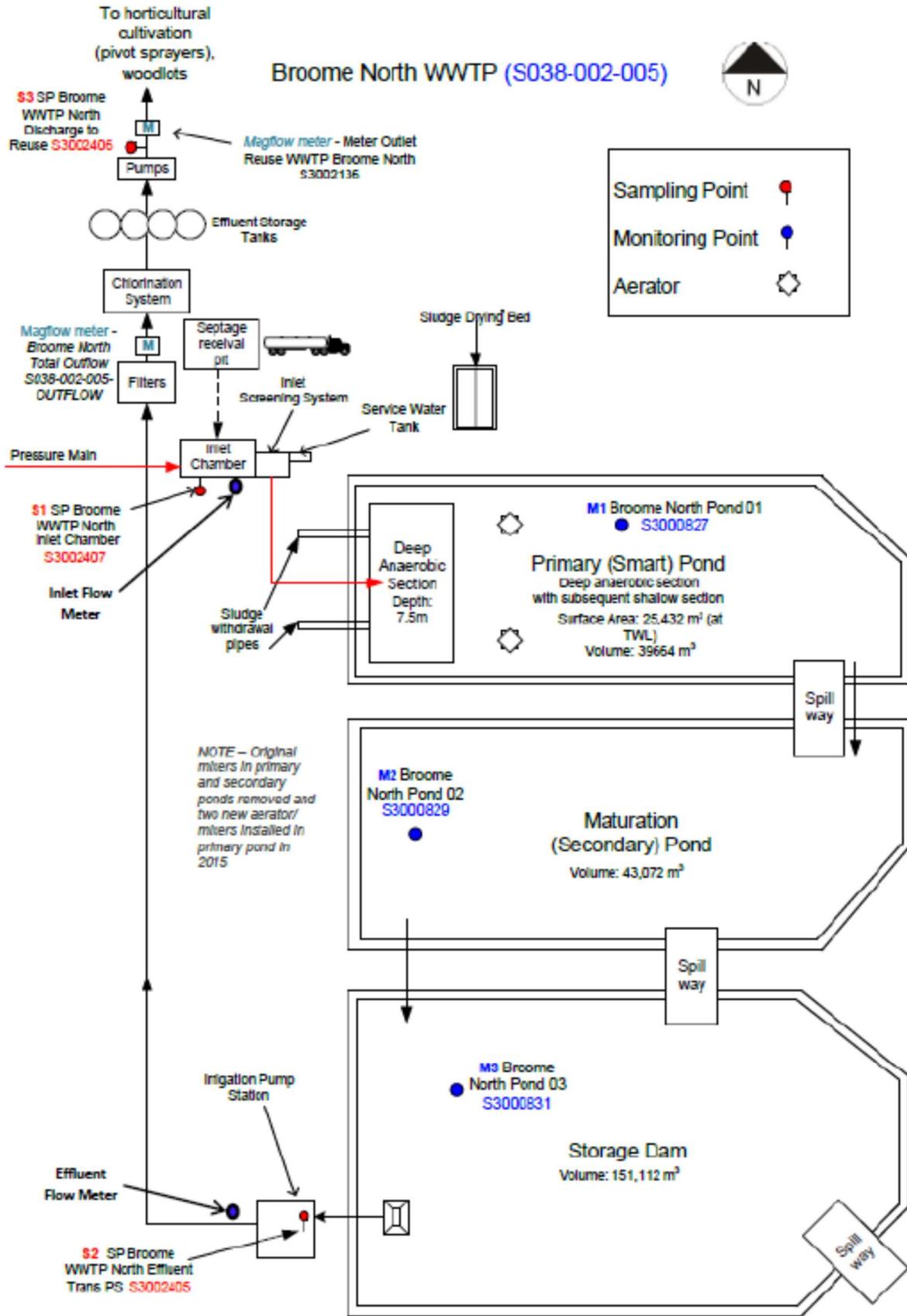
The Premises is shown in the maps below. The pink line depicts the Premises boundary. The locations of the emission points defined in Table 2.1.1 are also shown in the map below.





Map of emission monitoring points

The locations of the emission monitoring points defined in Table 3.2.1 are shown below.



Map of soil monitoring locations

The locations of the ambient soil monitoring points defined in Table 3.4.1 are shown below.



Map of groundwater monitoring locations

The locations of the ambient groundwater monitoring points defined in Table 3.4.2 are shown below.

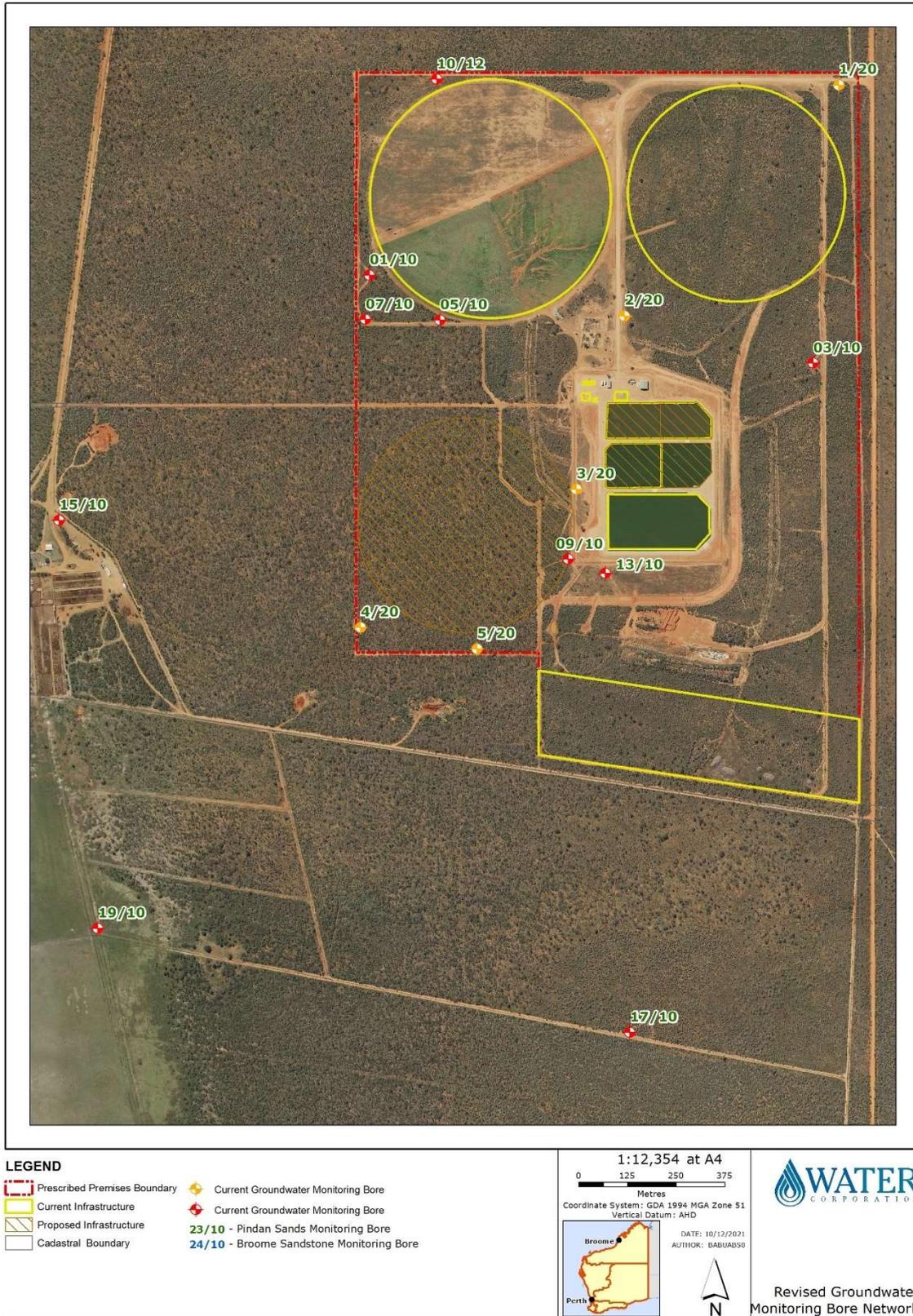


Figure 3

The information contained herein is the exclusive property of the Water Corporation and the respective copyright owners. It is subject to ongoing review and should be viewed in conjunction with the associated materials. No part of this production should be copied, modified, reproduced or published in any form other than that intended by the author.

File: S:\AA_EIA_GIS\1. Projects\Other\ER Program Mapping\ArchMap\Broome North WWTP\ArMap\Broome_North_Fig_3_Proposed_GW_Monitoring_Bores.mxd



Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

Licence: L9094/2017/1 Licence Holder: Water Corporation
Form: N1 Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide. Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Water Corporation	
Date	