



Licence

Environmental Protection Act 1986, Part V

Licensee: Water Corporation

Licence: L6245/1991/8

Registered office: 629 Newcastle Street
 LEEDERVILLE WA 6007

Premises address: Wickham Wastewater Treatment Plant
 Crown Reserve 37120
 Lot 120 on Plan 214456 Roebourne-Point Samson Road
 WICKHAM WA 6720 As depicted in Schedule 1

Issue date: Thursday, 24 October 2013

Commencement date: Friday, 1 November 2013

Expiry date: Sunday, 31 October 2027

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	950 cubic metres per day

Conditions

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

Date signed: 21 April 2016

.....
 Steve Checker
 MANAGER LICENSING (WASTE INDUSTRIES)
 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.

DER's industry licensing role

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

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER 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/Licensee 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 State Law Publisher website using the following link: <http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

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.



Other Guidelines which you should be aware of include:

- *Western Australian Guidelines for Biosolids Management*, Department of Environment and Conservation, December 2012 (as amended from time to time).

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 Water Corporation (Water Corp) operate the Wickham Wastewater Treatment Plant (Wickham WWTP), located at Reserve Crown Reserve 37120, Lot 120 Roebourne-Point Samson Road. The Wickham WWTP treats wastewater to a secondary standard and then tertiary standard for reuse purposes. Treated Wastewater (TWW) is either used by the City of Karratha and Rio Tinto to reticulate ovals and open spaces in Wickham or is discharged to offsite contingency evaporation basins.

This Licence is a result of an amendment sought by the Licensee to include infrastructure associated with Works Approval W5530/2013/1 in the operation of the WWTP. The new infrastructure associated with the Works Approval includes:

- new facultative pond;
- tertiary treatment plant for advanced treatment of wastewater to be reused for the irrigation of ovals, parks and open space within Wickham; and
- two evaporation basins to dispose of TWW not reused for irrigation.

The original infrastructure at the WWTP included three facultative ponds, including two primary ponds and a smaller secondary pond, in series. The main emissions from the premises are discharges to surface water via a controlled discharge from the 1st evaporation pond. However, this is only expected to occur in the event of a 1in 10 year Annual Recurrence Interval (ARI) rainfall event. There may also be leakage of partially TWW from the storage ponds. Odour is another potential emission from raw wastewater received and treated at the facultative pond.

The Licences and Works Approvals for the Premises prior to the amendment of this Licence are:

Instrument log		
Instrument	Issued	Description
L6245/1991/1	20/09/2000	Licence re-issue – First licence noted in Industry Licensing System
L6245/1991/2	20/09/2001	Licence re-issue
L6245/1991/3	04/10/2002	Licence re-issue
L6245/1991/4	04/10/2003	Licence re-issue
L6245/1991/5	04/10/2004	Licence re-issue
L6245/1991/6	04/11/2006	Licence re-issue
L6245/1991/7	01/11/2008	Licence re-issue
L6245/1991/7	24/03/2011	Licence amendment for AACR submission date
L6245/1991/8	01/11/2013	Licence re-issue
W5530/2013/1	06/03/2014	Works Approval issued for upgrade to the WWTP including: <ul style="list-style-type: none"> • new facultative pond; • refurbishment of the existing TWW treatment ponds for use as storage ponds; • tertiary treatment plant for advanced treatment of wastewater to be reused for the irrigation of ovals, parks and open space within Wickham; and



		<ul style="list-style-type: none">two evaporation basins to dispose of TWW not reused for irrigation.
L6245/1991/8	21/04/2016	Licence amendment for completion of Works Approval W5138/2012/1 and W5434/2013/1 in standardised format

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 period**’ means the inclusive period from 1 July until 30 June in the following year;

‘**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 or target is measured or a monitoring result is obtained;

‘**CEO**’ means Chief Executive Officer of the Department of Environment Regulation;

‘**CEO**’ for the purpose of correspondence means:

Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

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

‘**Geobag**’ means a geotextile dewatering bag that allows solids to dewater over time while containing the solid component;

‘**hardstand**’ means a surface with a permeability of 10^{-9} metres/second or less;

‘**leachate**’ means liquid released by or water that has percolated through waste and which contains some of its constituents;

‘**Licence**’ means this Licence numbered L6245/1991/8 and issued under the Act;

‘**Licensee**’ means the person or organisation named as Licensee 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;



'normal operating conditions' means any operation of a particular process (including abatement equipment) excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring;

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

'process equipment' means any wastewater or sludge containment infrastructure or wastewater treatment vessel;

'quarterly' means the 4 inclusive periods from 1 July to 30 September, 1 October to 31 December in the following year, 1 January to 31 March and 1 April to 30 June;

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

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

'shut-down' means the period when plant or equipment is brought from normal operating conditions to inactivity;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'start-up' means the period when plant or equipment is brought from inactivity to normal operating conditions;

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

'Waste Code' means the Waste Code assigned to a type of controlled waste for purposes of waste tracking and reporting as specified in the Department of Environment Regulation "Controlled Waste Category List" (July 2014), as amended from time to time;

'wastewater treatment vessels' means any vessel or tank containment infrastructure associated with the treatment of wastewater; and

'µS/cm' means microsiemens per centimetre.

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 current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guidelines or code of practice made during the term of this Licence.

1.2 General conditions

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

1.3 Premises operation

1.3.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit in this section.

1.3.2 The Licensee shall only allow waste to be accepted on to the Premises if:

- (a) it is of a type listed in Table 1.3.1; and
- (b) the quantity accepted is below any limit listed in Table 1.3.1; and
- (c) it meets any specification listed in Table 1.3.1



Table 1.3.1: Waste acceptance

Waste	Waste Code	Quantity Limit	Specification ¹
Putrescible and Organic wastes			
Sewage	N/A	950 m ³ /day	Accepted through sewer inflow(s) and tankered waste only

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

1.3.3 The Licensee shall ensure that the wastes accepted onto the Premises are only subjected to the processes set out in Table 1.3.2 and in accordance with any process requirements described in that table.

Table 1.3.2: Waste processing

Waste type	Process	Process requirements
Sewage	Physical, biological and chemical treatment	Treatment of sewage waste shall be limited to the treatment capacity of 950 m ³ /day.
Sewage sludge	Storage and disposal	<ul style="list-style-type: none"> Collected leachate to be returned to treatment ponds; and Removal of sludge and biosolids in accordance with the document 'Western Australian Guidelines for Biosolids Management', Department of Environment and Conservation, (December 2012 or updated version), or to a licensed landfill facility.

1.3.4 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.3.

Table 1.3.3: Containment infrastructure

Vessel or compound	Material	Requirements
Inlet works	Raw wastewater	Received and stored in in the Facultative Pond.
Facultative Pond	Wastewater	Geosynthetic clay lined to achieve a permeability of <10 ⁻⁹ m/s or equivalent
Storage Ponds 1 - 3	Wastewater	Compacted clay lined
Evaporation Ponds 1 - 2	Wastewater	HDPE lined to achieve a permeability of <10 ⁻⁹ m/s or equivalent

1.3.5 The Licensee shall manage all wastewater treatment and storage ponds such that:

- overtopping of the ponds does not occur;
- 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.

1.3.6 The Licensee shall:

- implement security measures at the site to prevent as far as is practical unauthorised access to the site;



- (b) undertake regular inspections of all security measures and repair damage as soon as practicable; and
- (c) ensure the entrance gates are closed and locked when the site is closed or unmanned.



2 Monitoring

2.1 General monitoring

2.1.1 The licensee shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1 unless indicated otherwise in the relevant table;
- (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and
- (c) 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.

2.1.2 The Licensee shall ensure that:

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

2.2 Monitoring of inputs and outputs

2.2.1 The Licensee shall undertake the monitoring in Table 2.2.1 according to the specifications in that table.

Table 2.2.1: Monitoring of inputs and outputs					
Input/Output	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Sewage - Inlet Flow	Inflow meter	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous
Treated wastewater discharged to Shire re-use scheme	M1	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous

2.3 Process Monitoring

2.3.1 The Licensee shall undertake the monitoring in Table 2.3.1 according to the specifications in that table.

Table 2.3.1: Monitoring of Treated Wastewater			
Monitoring point reference	Parameter	Units	Frequency
M1	Volumetric flow rate (cumulative) ¹	m ³ /day	Continuous
	pH ¹	pH units	
	Biochemical Oxygen Demand	mg/L	Quarterly
	Total Suspended Solids		
	Total Dissolved Solids		
	Total Nitrogen		
	Ammonium Nitrogen		
	Nitrate + Nitrite Nitrogen		
	Total Phosphorus		
<i>E.coli</i> ²	cfu/100 mL		

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



3 Improvements

3.1 Improvement program

3.1.1 The Licensee shall complete the improvements in Table 3.1.1 by the date of completion in Table 3.1.1.

Table 3.1.1: Improvement program		
Improvement reference	Improvement	Date of completion
IR1	<p>The Licensee shall submit to the CEO confirmation of the design of Storage Ponds 1-3 used within the wastewater treatment plant process.</p> <p>This should include, but not limited to:</p> <ul style="list-style-type: none">• Any currently available information identifying the liner type/ design and permeability for the ponds;• Date of last integrity testing carried out on each pond and results from the assessment; and• Identify avenues available (with indicative timeframes) to rectify any risks/ issues identified, including the potential risks associated with infiltration of treated and partially treated wastewater at the premises through pond infrastructure constructed with in-situ soils.	31/12/2016



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 Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee 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.

4.1.3 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

4.2 Reporting

4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 1 September each year. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form¹
-	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 2.2.1	Monitoring of inputs and outputs	None specified
	Methodology and calculations used to estimate the daily volumetric flow rate of treated wastewater pumped to evaporation basins and results of those calculations.	None specified
Table 2.3.1	Monitoring of Treated Wastewater	None specified
4.1.2	Compliance	Annual Audit Compliance Report (AACR)
4.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 2

4.2.2 The Licensee shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results.

4.2.3 The Licensee 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 ¹
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties

Note 1: Forms are in Schedule 2

4.3 Notification

4.3.1 The Licensee 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 requirement ¹	Format or form ²
-	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
-	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 ³	
-	Direct discharge to the environment, excluding infiltration, within 48 hours of becoming aware that such a discharge will occur, or has occurred	No less than 48 hours	
1.3.1	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	N1

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

Note 2: Forms are in Schedule 2

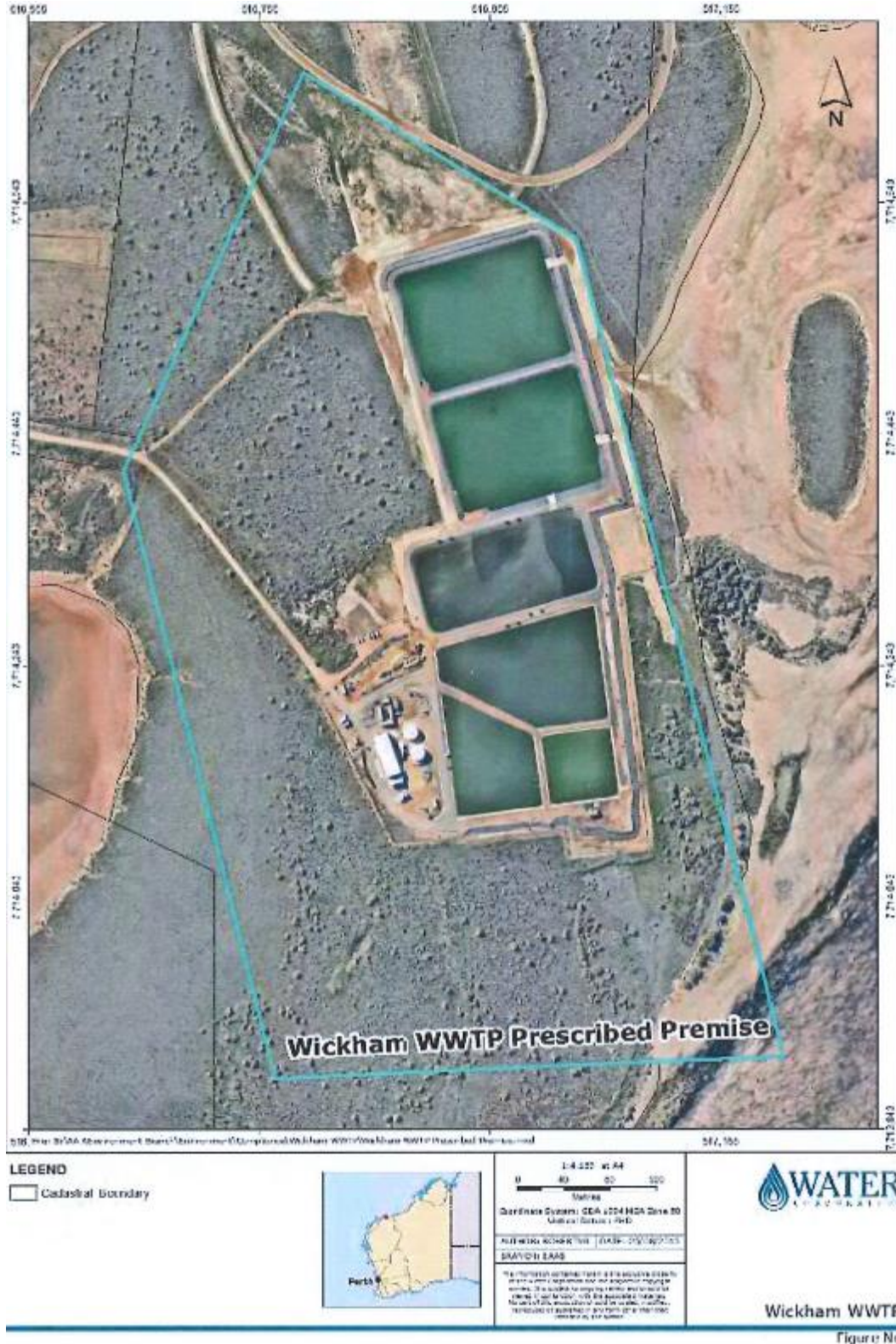
Note 3: The following information shall be included: (i) when desludging is proposed to occur, (ii) the desludging method, (iii) action to mitigate potential odour impacts,



Schedule 1: Maps

Premises map

The Premises is shown in the map below. The blue line depicts the Premises boundary.





Map of monitoring points

The locations of the emission point defined in Table 2.2.1 and monitoring point defined in Table 3.2.1 are shown below.

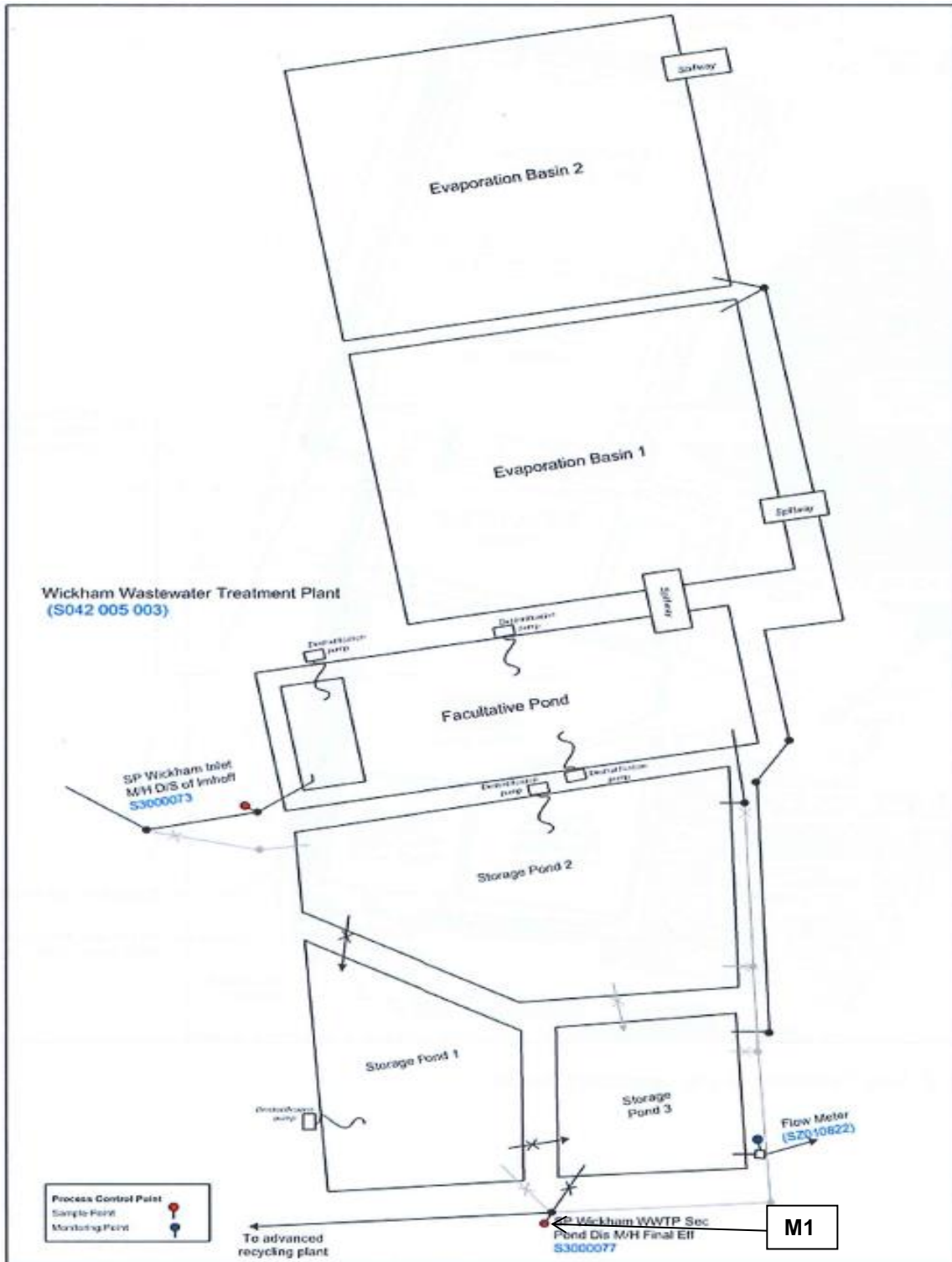


Figure 3: Monitoring and sample points



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.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes Please proceed to Section C

No Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) must only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)



Licence: L6245/1991/8
 Form: N1

Licensee: Water Corporation
 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	Water Corporation
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.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Water Corporation	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Water Corporation

Licence: L6245/1991/8

Registered office: 629 Newcastle Street
LEEDERVILLE WA 6007

Premises address: Wickham Wastewater Treatment Plant
Crown Reserve 37120
Lot 120 on Plan 214456 Roebourne-Point Samson Road
WICKHAM WA 6720

Issue date: Thursday, 24 October 2013

Commencement date: Friday, 1 November 2013

Expiry date: Sunday, 31 October 2027

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended Licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by: Chris Slavin
Licensing Officer

Decision Document authorised by: Steve Checker
Manager Licensing



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1 Purpose of this Document	2
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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	
	New Licence <input type="checkbox"/>	
	Licence amendment <input checked="" type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	54	950 cubic metres per day
Application verified	Date: N/A	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Compliance Certificate received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal and assessment

The Water Corporation (Water Corp) operate the Wickham Wastewater Treatment Plant (Wickham WWTP), located at Reserve Crown Reserve 37120, Lot 120 Roebourne-Point Samson Road. The Wickham WWTP treats wastewater to a secondary standard and then tertiary standard for reuse purposes. Treated Wastewater (TWW) is either used by the City of Karratha and Rio Tinto to reticulate ovals and open spaces in Wickham or is discharged to offsite contingency evaporation/infiltration basins.

This Licence is a result of an amendment sought by the Licensee to include infrastructure associated with Works Approval W5530/2013/1 in the operation of the WWTP. The Commissioning Report for Stage 1 of Works Approval W5530/2013/1 was submitted to DER on 26 August 2015. The Commissioning Report for Stage 2 of Works Approval W5530/2013/1 was submitted to DER on 8 March 2016. The new infrastructure associated with the Works Approval includes:

- new facultative pond;
- tertiary treatment plant for advanced treatment of wastewater to be reused for the irrigation of ovals, parks and open space within Wickham; and
- two evaporation basins to dispose of TWW not reused for irrigation.

The original infrastructure at the WWTP included three facultative ponds, including two primary ponds and a smaller secondary pond, in series. The main emissions from the premises are discharges to surface water via a controlled discharge from the 1st evaporation pond. However, this is only expected to occur in the event of a 1 in 10 year Annual Recurrence Interval (ARI) rainfall event. There may also be leakage of partially TWW from the storage ponds. Odour is another potential emission from raw wastewater received and treated at the facultative pond.

The draft Licence was sent to Water Corp on 24 March 2016. Minor comments from Water Corp were received on 12 April 2016. Changes were made accordingly as requested and detailed in section 5.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.2.1	Licence condition 1.2.1 has been added to the Licence which, replaces part of condition 4 (i) of the previous licence. This condition ensures the Licensee implements measures to prevent stormwater becoming contaminated with wastewater at the premises and potentially comprising the integrity of the pond embankments.	General provisions of the <i>Environmental Protection Act 1986</i> . <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> .
Premises operation	L1.3.1 – L1.3..6	<p>Condition 1.3.1 has been added to the Licence to ensure the Licensee records and investigates exceedances of licence limits.</p> <p>Condition 1.3.2 has been added to the licence to ensure that only sewage waste is accepted at a rate of 950m³/day to ensure the WWTP can operate to its design capacity.</p> <p>Condition 1.3.3 has been added to the Licence to ensure the correct processing of sewage waste so that the WWTP can operate efficiently.</p> <p>Condition 1.3.4 has been added to the Licence to ensure that wastewater is contained in infrastructure suitable to hold and treat wastewater.</p> <p>Condition 1.3.5 has been added to the Licence which replaces part of condition 4 (ii) of the previous licence. This condition ensures the wastewater treatment ponds are maintained to prevent overtopping of the ponds and growth of</p>	General provisions of the <i>Environmental Protection Act 1986</i> . <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> .



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>vegetation is growing on the pond embankments, which may impact the integrity of the ponds.</p> <p>Condition 1.3.6 has been added to the Licence to ensure adequate security measures to prevent unauthorised access to the WWTP.</p>	
General monitoring	L2.1.1 – L2.1.2	<p>Licence condition 2.1.1 has been added to the Licence which, replaces condition 6 (b) and 6 (c) to ensure Water Corp collects and preserves samples in line with the relevant Australian Standards.</p> <p>Licence condition 2.1.2 has been added to the Licence to ensure monitoring is undertaken in a consistent time frame based on monitoring frequency.</p>	
Monitoring of inputs and outputs	L2.2.1	Licence condition 2.2.1 has been included on the Licence to ensure the monitoring of inflows coming into the WWTP are recorded by an inflow meter and treated effluent discharged from the TTP to the towns reuse scheme. This is necessary for comparison with the daily sewage treatment target volume.	N/A.
Process Monitoring	L2.3.1	Licence condition 2.3.1 has been added to the Licence, which replaces condition 6 (a) for Water Corp to monitor wastewater quality on a quarterly basis. This requirement is consistent for other Licensed WWTP's across the State.	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p>
Improvements	L3.3.1	<p><u>Emission Description</u></p> <p><i>Emission:</i> Potential infiltration of partially treated wastewater from the Storage Ponds 1 – 3 to nearby tidal flats and marine environment.</p> <p><i>Impact:</i> Potential to enrich soil and groundwater with excess nutrients and pollutants, and negatively impact on the ecology of groundwater, surface water bodies and the marine environment. Depth to groundwater at the premises is approximately 1 to 3mbgl. The soils at the site are described as red-yellow aeolian</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>sands, which are potentially highly permeable. Areas of the marine environment in Wickham are protected due to high recreational values such as fishing. The surrounding intertidal environment is support by vast species of mangroves.</p> <p><i>Controls:</i> Water Corporation monitor wastewater quality leaving Storage Pond 3. And will be treated to “High Risk’ Standard via the TTP. The TWW is then directed to onsite holding basins which irrigates ovals in Wickham. It is also envisaged that public open spaces in Wickham will be irrigated with High Risk water.</p> <p>The ponds at the premises are considered to be constructed from in-situ compacted clay soils. Groundwater monitoring at the site has never been conducted</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Major <i>Likelihood:</i> Possible <i>Risk Rating:</i> High</p> <p><u>Regulatory Controls</u> An improvement condition has been added to the Licence requiring an investigation regarding Storage Ponds 1-3 due to unknown liner permeability, unknown levels of infiltration to groundwater and the sensitivity of the receiving environment.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Major <i>Likelihood:</i> Possible <i>Risk Rating:</i> High</p>	
Information	L4.1.1 – L4.1.4 L4.2.1 – L42.3 L4.3.1	Licence condition 4.1.3 replaces condition 2 of the previous licence. Licence condition 4.2.1 replaces condition 1 of the previous licence.	General provisions of the <i>Environmental Protection Act 1986.</i>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>Licence condition 4.2.3 has been added to the Licence to ensure non annual reporting requirements such as target exceedances and monitoring reports from third parties are also submit to DER.</p> <p>Licence condition 4.3.1 has been added to the Licence to ensure the CEO is notified if;</p> <ul style="list-style-type: none">• process equipment is being taken off line for maintenance;• sludge is being removed from a treatment pond;• there is a direct discharge to the environment• there is a breach of any limit specified in the licence;• there is any malfunction or failure of pollution control equipment; and calibration reports.	
Licence Duration	N/A	The licence duration has been extended to 31 October 2027 in accordance with DER's Licence Expiry Extension Project and DER's Guidance Statement: Licence Duration, November 2015.	N/A



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
24/03/2016	Draft Licence sent to proponent	<ol style="list-style-type: none">1. Licence summary: Remove infiltration. Evaporation basins only.2. Premises operation: Remove reference to drum screen. No drum screen at premises.	<ol style="list-style-type: none">1. Changed as requested.2. Changed as requested.
21/04/2016	Email consultation on proposed amended expiry date in accordance with DER's Licence Expiry Extension Project.	Proponent agreed to incorporation of extended expiry date (27/10/2027)	Incorporated



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High