



Licence

Environmental Protection Act 1986, Part V

Licensee: Water Corporation

Licence: L5400/1992/12

Registered office: 629 Newcastle Road
LEEDERVILLE WA 6007

ACN: n/a

Premises address: Waroona Wastewater Treatment Plant
22 Drake Road
WAROONA WA 6215
Being Lot 22 and Lot 305 on Plan 223194 as depicted in Schedule 1.

Issue date: Thursday, 15 October 2015

Commencement date: Sunday, 1 November 2015

Expiry date: Saturday, 31 October 2020

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 m ³ or more per day	240m ³ per day

Conditions

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

Date signed: 29 September 2015

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Ruth Dowd

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.

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 Waroona Wastewater Treatment Plant (WWTP) is located along Drake Road in Waroona and has been established since 1992. The Premises is neighboured on the west side by the earthmoving contractor 'Carna Earthmoving'. On the other sides of the WWTP are small farm lots. The closest resident to the plant is approximately 400 m north of the plant.

The Premises is located at the base of the Darling scarp and the edge of the Swan coastal plain. The site is underlain by surficial sediments and shallow aquifers. The groundwater is approximately 1m below the surface. Connected to the site is also a planted treelot of *Eucalyptus globulus* (Tasmanian blue gums).

The site occurs within the same catchment as the RAMSAR listed Peel-Yalgorup wetland system

There are three treatment ponds on the premises. Alum dosing occurs to assist in reducing phosphorus levels encountered in the final effluent discharge from the premises.

Treated wastewater used to be discharged to the adjacent treelot. It is now discharged via the flume to a clay lined swale (approximately 800 metres long) which leads into a pre-established agricultural drain. The swale was constructed in 2014 under works approval W5433/2013/1 and is being tested for effectiveness in further reducing phosphorus concentration in the wastewater.

This Licence is the successor to licence L5400/1992/11 and continues to authorise the operations at the Premises. The reissue of the licence has not involved a re-assessment of the environmental risk of all operations; however the disposal of treated wastewater to the clay lined swale has been considered and is now reflected in the licence conditions. The licence has been updated to the current licence format which has inherently resulted in changes to the licence condition wording and structure. Some administrative changes and corrections have also been made to the conditions. Where any change to the intent of conditions has occurred, justification is provided in the Decision Document.

The licences and works approvals issued for the Premises since 25/09/2000 are:

Instrument log		
Instrument	Issued	Description
L5400/1992/4	25/09/2000	Licence re-issue
L5400/1992/5	3/09/2001	Licence re-issue
L5400/1992/6	23/10/2002	Licence re-issue
L5400/1992/7	6/10/2003	Licence re-issue
L5400/1992/8	27/05/2004	Licence re-issue
L5400/1992/9	1/11/2004	Licence re-issue
L5400/1992/10	17/10/2005	Licence re-issue



L5400/1992/11	28/10/2010	Licence re-issue
W5433/2013/1	5/06/2013	Works approval for construction of discharge swale
L5400/1992/12	15/10/2015	Licence re-issue and update to new licence 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*;

'annual period' means the inclusive period 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 3780' means the Australian Standard AS 3780-2008 *The storage and handling of corrosive substances*;

'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 5667.4' means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made*;

'AS/NZS 5667.6' means the Australian Standard AS/NZS 5667.6 *Water Quality – Sampling – Guidance on sampling of rivers and streams*;

'AS/NZS 5667.10' means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*;

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

'Biosolids guidelines' means the document *Western Australian Guidelines for Biosolids Management*, Department of Environment and Conservation, December 2012 (as amended from time to time)



'boundary discharge point 1' means the point where surface water leaves the Premises from the woodlot, as labelled 'Boundary discharge point 1' on the Premises Map in Schedule 1;

'boundary discharge point 2' means the point where surface water leaves the Premises from the clay lined swale, as labelled 'Boundary discharge point 2' on the Premises Map in Schedule 1;

'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

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

'Licence' means this Licence numbered L5400/1992/12 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;

'pond discharge point' means the point where treated wastewater is discharged from the final wastewater treatment pond to the clay lined swale or the woodlot, as labelled 'pond discharge point' on the Premises Map 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;

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

'wastewater treatment ponds' means the three ponds utilised to treat wastewater on the Premises, as labelled 'Wastewater treatment ponds' on the Premises Map in Schedule 1;

'woodlot' means the area of planted *Eucalyptus globulus* on the Premises, as labelled 'Woodlot' on the Premises Map in Schedule 1, which is utilised to discharge treated wastewater as a contingency measure and/or if the clay lined swale is temporarily offline for maintenance or repair work; and

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

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the 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.



- 1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:
- (a) pollution;
 - (b) unreasonable emission;
 - (c) discharge of waste in circumstances likely to cause pollution; or
 - (d) being contrary to any written law.

1.2 General conditions

- 1.2.1 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.3 Premises operation

- 1.3.1 The licensee shall manage the wastewater treatment ponds in a manner such that:
- (a) uncontaminated stormwater runoff shall not enter the wastewater treatment pond(s);
 - (b) overtopping of the wastewater treatment ponds does not occur;
 - (c) there is no discernible seepage loss from the ponds;
 - (d) infrastructure is in place to prevent carry over of surface floating matter between ponds; and
 - (e) vegetation (emergent or otherwise) and floating debris shall be prevented from encroaching onto the pond surfaces and inner pond embankments.
- 1.3.2 The licensee shall dispose of sewage sludge and biosolids in accordance with the Biosolids guidelines.
- 1.3.3 Where sewage sludge is temporarily stored on-site, the Licensee shall direct sewage sludge to a hardstand area or hardstand drying bed which:
- (a) is adequately bunded to prevent surface runoff of leachate or sludge from crossing the boundary of the premises; and
 - (b) returns sludge leachate from the storage area back to the treatment ponds.
- 1.3.4 The licensee shall store environmentally hazardous chemicals, including alum and hypochlorite, where the total volume of each substance stored on the premises exceeds 250 litres, within bunded areas in accordance with AS 3780.
- 1.3.5 The licensee shall ensure that perimeter valves on bunded areas mentioned in condition 1.3.4 are locked or otherwise secured in the closed position whilst the site is unattended.

2 Emissions

2.1 General

- 2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

2.2 Emissions to surface water

- 2.2.1 The Licensee shall ensure that where waste is emitted to surface water from the emission points in Table 2.2.1 it is done so in accordance with the conditions of this Licence.



Table 2.2.1: Emissions to surface water

Emission point reference	Description	Source including abatement
Boundary discharge point 1	Treated wastewater discharge from the woodlot to Drakesbrook Drain	Wastewater that has been treated through the wastewater treatment ponds and the woodlot
Boundary discharge point 2	Treated wastewater discharge from the clay lined swale to Drakesbrook Drain	Wastewater that has been treated through the wastewater treatment ponds and the clay lined swale

2.2.2 The Licensee shall not cause or allow point source emissions to surface water greater than the limits listed in Table 2.2.2.

Table 2.2.2: Emission limits to surface water

Emission point reference	Parameter	Limit (including units)	Application of limit
Boundary discharge point 1	Total Phosphorus	5 mg/L	Limit must be achieved in 3 out of every four consecutive spot samples
Boundary discharge point 2			

2.3 Emissions to land

2.3.1 The Licensee shall ensure that where waste is emitted to land from the emission points in Table 2.3.1 it is done so in accordance with the conditions of this Licence.

Table 2.3.1: Emissions to land

Emission point reference	Description	Source including abatement
Woodlot	Treated wastewater discharged to the woodlot, authorised only as a contingency measure and/or if the clay lined swale is temporarily offline for maintenance or repair work	Wastewater that has been treated through the wastewater treatment ponds and is discharged to the woodlot via the pond discharge point, where: (a) the channel to the woodlot is graded to maximise the even distribution of treated wastewater along the disposal area; (b) vegetation located within the woodlot is maintained to facilitate the uptake of nutrients and water; and (c) the channel to the woodlot is clear of excessive sludge build-up.

3 Monitoring

3.1 General monitoring

3.1.1 The licensee shall ensure that:

- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
- all surface water sampling is conducted in accordance with AS/NZS 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant;
- all microbiological samples are collected and preserved in accordance with AS/NZS 2031;
- 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.

3.1.2 The Licensee shall ensure that monthly monitoring is undertaken at least 15 days apart.



- 3.1.3 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.

3.2 Monitoring of emissions to surface water

- 3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of emissions to surface water				
Emission point reference	Parameter	Units	Averaging period	Frequency
Boundary discharge point 1	Total Phosphorus	mg/L and kg/day	Spot sample	Monthly, when discharge to woodlot is occurring
Pond discharge point	Total volume discharged to clay lined swale	m ³	Monthly and cumulative	Continuous
Boundary discharge point 2	pH ¹	pH units	Spot sample	Monthly
	Total suspended solids	mg/L and kg/day		
	Total dissolved solids			
	Biochemical oxygen demand			
	Total Phosphorus			
	Total Nitrogen			
	Oxidised nitrogen (nitrate + nitrite-nitrogen)			
	Ammonium-nitrogen			
	Total aluminium			
<i>E.coli</i>	Colony forming units per 100 mL			

Note 1: In-field non NATA analysis permitted

3.3 Monitoring of emissions to land

- 3.3.1 The Licensee shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Monitoring of emissions to land				
Emission point reference	Parameter	Units	Averaging period	Frequency
Pond discharge point	Total volume discharged to woodlot	m ³	Monthly and cumulative	Continuous
	pH ¹	pH units	Spot sample	Monthly, when discharge to woodlot is occurring
	Total suspended solids	mg/L and kg/day		
	Total dissolved solids			
	Biochemical oxygen demand			
	Total Phosphorus			
	Total Nitrogen			
	Oxidised nitrogen (nitrate + nitrite-nitrogen)			
	Ammonium-nitrogen			
	Total aluminium			
	<i>E.coli</i>	Colony		



		forming units per 100 mL		
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Note 1: In-field non NATA analysis permitted

3.4 Monitoring of inputs and outputs

3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table.

Table 3.4.1: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Raw wastewater inflows	Volume	m ³ /day	Monthly	Continuous

4 Improvements

4.1 Improvement program

4.1.1 The Licensee shall complete the improvements in Table 4.1.1 by the date of completion in Table 4.1.1.

4.1.2 The Licensee, for improvements not specifically requiring a written submission, shall write to the CEO stating whether and how the Licensee is compliant with the improvement within one week of the completion date specified in Table 4.1.1.

Table 4.1.1: Improvement program

Improvement reference	Improvement	Date of completion
IR1	The Licensee shall prepare and submit to the CEO a report on the current condition of the woodlot, including (but not limited to): <ul style="list-style-type: none">(a) the health of the trees in the woodlot and any evidence of deterioration in their condition;(b) the current density of living trees within the woodlot compared with the historic density prior to the discharge of treated wastewater to the area;(c) an investigation into the likely cause/s for any observed deterioration, including soil monitoring results if required;(d) the plan for the future use or rehabilitation of the woodlot, including details of any intention to continue discharge of treated wastewater (timing, frequency, volumes, nutrient loadings); and(e) an environmental risk assessment of continued discharge to the treelot (if applicable, subject to (d) above).	Within 6 months of the issue date of this licence
IR2	The Licensee shall prepare and submit to the CEO a report on the performance of the clay lined swale trial, including (but not limited to): <ul style="list-style-type: none">(a) a dedicated review of monitoring undertaken, with respect to reductions of total phosphorus and total nitrogen achieved by the swale since it was commissioned;(b) a report on the current condition of the swale and the likely program and timing to renovate the clay within it; and	1 September 2016



	the plan for the continued use of the clay lined swale in both the short-term and the long-term, including any considerations to modify or upgrade the swale in future.	
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5 Information

5.1 Records

- 5.1.1 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 5.1.1(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.
- 5.1.2 The Licensee 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.
- 5.1.3 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.
- 5.1.4 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.

5.2 Reporting

- 5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 63 calendar days after the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form ¹
-	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
3.2.1	Monitoring of emissions to surface water for the annual period	
3.3.1	Monitoring of emissions to land for the annual period	
3.4.1	Monitoring of inputs and outputs for the annual period	
5.1.3	Compliance for the annual period	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary for the annual period	None specified



Note 1: Forms are in Schedule 2

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

5.3 Notification

5.3.1 The Licensee shall ensure that the parameters listed in Table 5.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 5.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
2.3.1	Treated wastewater being discharged to the woodlot (authorised only as a contingency measure and/or if the clay lined swale is temporarily offline for maintenance or repair work)	No less than 14 days prior	Proposed date, duration and reason for discharge
n/a	Taking any equipment offline for maintenance works that may result in an increase in odour emissions from the premises Taking any treatment pond offline for maintenance works	No less than 24 hours prior	Proposed date, duration and details of works
n/a	The removal of sewage sludge from any on-site treatment pond	No less than 14 days prior	Proposed date, duration and details of works, including fate of sludge

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

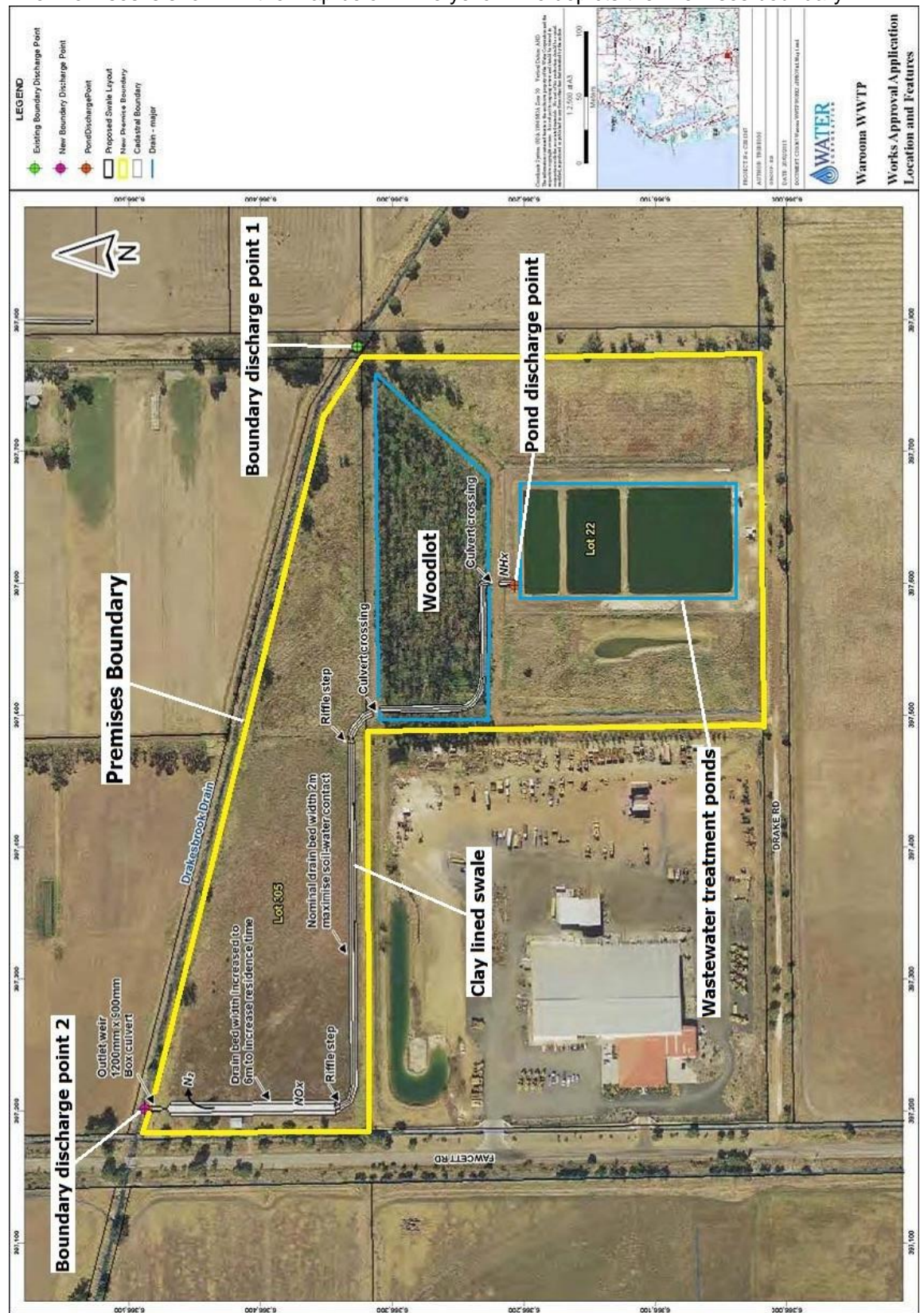
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

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





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: Trading as:	ABN:
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 B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each Licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DER verbally Date _____ <input type="checkbox"/> Reported to DER in writing Date _____	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may 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: _____

NAME:
(printed) _____

POSITION: _____

DATE: ____/____/____

SEAL (if signing under seal

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: ____/____/____



Licence: L5400/1992/12
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	
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	



Environmental Protection Act 1986, Part V

Licence: L5400/1992/12

Expiry date: Saturday, 31 October 2020

Decision Document authorised by: Ruth Dowd
Delegated Officer



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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 type="checkbox"/> Works Approval amendment <input type="checkbox"/> Licence renewal <input checked="" type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	54	240 m ³ per day
Application verified	Date: 14/08/2015	
Application fee paid	Date: 27/08/2015	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
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 checked="" type="checkbox"/> No <input type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <i>Premises belongs to an Irrigation District and groundwater area under the RIWI Act; however operations do not involve the taking of water, construction of wells or interference with the bed or banks of a watercourse.</i>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <ul style="list-style-type: none"> <i>Environmental Protection Swan Coastal Plain Lakes Policy 1992</i> <i>Environmental Protection Peel Inlet - Harvey Estuary Policy 1992</i> 		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <i>The SCP policy applies to lakes in the SCP area of standing water greater than 1000m². The premises activities do not discharge to/alter/impact any such lakes.</i> <i>The PHE policy sets out environmental quality objectives for the estuary (whole of catchment targets for nutrient export), and infers the need for appropriate land management by landholders within the policy area. The premises has some obligation under this policy to reduce nutrient loadings to the catchment.</i> 		

3 Executive summary of proposal and assessment

The Waroona Wastewater Treatment Plant (WWTP) is located along Drake Road in Waroona and has been established since 1992. The Premises is neighboured on the western side by the earthmoving contractor 'Carna Earthmoving'. On the other sides of the WWTP are small farm lots. The closest resident to the plant is approximately 400 m north of the plant.

The Premises is located at the base of the Darling scarp and the edge of the Swan coastal plain. The site is underlain by surficial sediments and shallow aquifers. The groundwater is approximately 1m below the surface. The site occurs within the same catchment as the RAMSAR listed Peel-Yalgorup wetland system

Within the site is also a planted treelot of *Eucalyptus globulus* (Tasmanian blue gums).

There are three treatment ponds on the premises. Alum dosing occurs to assist in reducing phosphorus levels encountered in the final effluent discharge from the premises.

Treated wastewater used to be discharged to the adjacent treelot. It is now discharged via the flume to a clay lined swale (approximately 800 metres long) which leads into a pre-established agricultural drain. The swale was constructed in 2014 under works approval W5433/2013/1 and is being tested for effectiveness in further reducing phosphorus concentration in the wastewater.



This Licence is the successor to Licence L5400/1992/11 and continues to authorise the operations at the Premises. The reissue of the licence has not involved a re-assessment of the environmental risk of all operations; however the disposal of treated wastewater to the clay lined swale has been considered and is now reflected in the licence conditions. The licence has been updated to the current licence format which has inherently resulted in changes to the licence condition wording and structure. Some administrative changes and corrections have also been made to the conditions. Where any change to the intent of conditions has occurred, justification is provided in the Decision Table below.



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
Interpretation	L1.1.1 – 1.1.5	Conditions 1.1.1 – 1.1.5 have been added to the licence as part of the reissue, to ensure that terminology used within the licence is referenced to the appropriate definitions where applicable, that any reference to a standard or guideline is to the most current version of that standard or guideline and that emissions not authorised through the licence comply with the provisions of the <i>Environmental Protection Act 1986</i> .	
General conditions	L1.2.1	Condition 1.2.1 has been added to the licence as part of the reissue to ensure that all pollution control and monitoring equipment is maintained such that it is operational and fit for purpose.	
Premises operation	L1.3.1 – 1.3.5	Conditions 1.3.1 – 1.3.5 have been included on the licence, as transferred from the previous licence L5400/1992/11 conditions 7, 21, 20, 17 and 18, respectively.	
Emissions general	L2.1.1	Limits have been set on the licence (see Point source emissions to surface water section below) and therefore Condition 2.1.1 regarding recording and investigation of exceedances of limits has been included.	
Point source emissions to surface water including monitoring	L2.2.1 – 2.2.2 L3.2.1	Operation <u>Emission Description</u> <i>Emission:</i> Discharge of treated wastewater to Drakesbrook Drain (agricultural drain) from the clay lined swale and/or the woodlot. <i>Impact:</i> Contamination of soil, surface water and shallow groundwater in the catchment (the drain belongs to same catchment as the RAMSAR listed Peel-Yalgorup wetland system) with nutrients, pathogens and other contaminants (e.g. heavy metals) present in wastewater. This may also lead to secondary effects such as weed infestation in the riparian zone and algal blooms in the drain. Any stock drinking from the drain	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>downstream could become sick from ingestion of the water.</p> <p><i>Controls:</i> The wastewater is treated in three treatment ponds prior to discharge to a 700m long clay-lined swale for further stripping of nutrients which is being trialled and was constructed under works approval issued by DER. Prior to this, wastewater was discharged to a woodlot which was not particularly effective at reducing nutrients (<10% reduction) but has been retained as a contingency measure (such as if the swale is taken offline for maintenance), as it is a better option than direct discharge to the drain from the ponds. The swale has been in operation since 2014 and wastewater is being analysed on a monthly basis to ensure it is effective. Wastewater is dosed with alum to further reduce phosphorus levels and keep them below 5mg/L at the discharge point.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Condition 2.2.1 has been included on the licence to authorise the discharge of wastewater from the woodlot to the drain, and from the clay lined swale to the drain. The discharge from the woodlot to the drain was already authorised under the previous licence, whereas the discharge from the swale to the drain is current practice since commencement of the swale trial; however the previous version of the licence did not reflect this as it was not amended following the construction of the swale. Condition 2.2.2 has been included on the licence to set the limit of 5mg/L for total phosphorus (in 3 out of 4 samples), as transferred from the previous version of the licence (condition 11). The limit now applies to both locations: i.e. water exiting the boundary from the woodlot (used as a contingency) and from the clay lined swale. Condition 3.2.1 has been included on the licence to set the monitoring requirements for the discharges of water (quantity, quality and contaminant loads) from both the woodlot</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>and the clay lined swale to the drain. This includes the requirement to monitor total phosphorus in water exiting the woodlot into the drain (purely to assess compliance with the phosphorus limit in condition 2.2.2) at times that the woodlot is being discharged to. The conditions also includes the monitoring of the monthly volume discharged from the pond to the swale (as a <u>substitute</u> for the volume exiting the end of the lined swale where there is no flow meter) and the monitoring of a suite of contaminants which exit the swale into the drain. These requirements differ from conditions 8, 9, 14 and 15 of the previous licence which only required detailed monitoring of the water as it exited the final treatment pond to the woodlot; however since the commissioning of the clay lined swale, the discharge from the end of the swale is a better representation of the final discharge to the environment. In addition, aluminium has been added to the parameters required to be monitored, due to the alum dosing activities on site.</p> <p>See the Improvements section for details on other relevant conditions to further assess and manage the risk of the treated wastewater discharge.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p>	
Emissions to land including monitoring	L2.3.1 L3.3.1	<p>Operation <u>Emission Description</u> <i>Emission:</i> Discharge of treated wastewater to the woodlot, for nutrient-stripping/absorption by trees, prior to residual runoff into the Drakesbrook Drain. <i>Impact:</i> Contamination of soil, surface water and shallow groundwater in the woodlot with nutrients, pathogens and other contaminants (e.g. heavy metals) present in wastewater. Death or loss of condition of trees in the woodlot due to overloading with contaminants or water, which may lead to additional leaching off-site via the subsequent runoff point to the drain. Secondary downstream impacts may occur as detailed in the Point source emissions to surface water section above.</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><i>Controls:</i> The wastewater is treated in three treatment ponds prior to discharge to the woodlot, and will only be discharged to the woodlot as a contingency while the clay lined swale is being trialled. Wastewater is dosed with alum to further reduce phosphorus levels, which are measured monthly at both the pond discharge point (to the woodlot) and the boundary discharge point (from the woodlot to the drain).</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Condition 2.3.1 has been included on the licence to authorise the discharge to the woodlot (as was previously authorised under the licence L5400/1992/11 condition 6); however the condition specifies that this is only to occur as a contingency and/or if the clay-lined swale is offline for maintenance/repair. The condition specifies other abatement measures, as transferred from condition 16 of the previous licence (maintenance of the discharge channel and vegetation). Condition 3.3.1 has been included on the licence to set the monitoring requirements for any discharge from the ponds to the woodlot (quantity, quality and contaminant loads). The condition is similar to conditions 8, 9, 14 and 15 of the previous licence requiring water quality monitoring and load calculations for the pond discharge; however it is modified such that aluminium has been added and the monitoring is only required when a discharge to the woodlot is occurring. See the Improvements section for other relevant conditions to assess and manage the risk of continued discharge to the woodlot. See the Information section for details on other relevant conditions for notification to DER of intent to discharge to the woodlot.</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<u>Residual Risk</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate	
Odour	n/a	Odour emissions were not re-assessed as part of this licence reissue.	
Monitoring general	L3.1.1 – 3.1.3	<p>Condition 3.1.1 has been included on the licence to set the standards for monitoring undertaken (Australian standards, NATA accreditation), as there are monitoring conditions set for the treated wastewater discharges. This condition replaces conditions 12 and 13 of the previous licence.</p> <p>Condition 3.1.2 has been included to specify the frequency of monthly monitoring (at least 15 days apart) to ensure that monthly samples are representative of different months.</p> <p>Condition 3.1.3 has been included to ensure monitoring equipment is calibrated in accordance with the manufacturers specifications. This conditions partially replaces conditions 9 and 10 of the previous licence for the maintenance of flow monitoring devices at the pond discharge point and the boundary discharge point.</p>	
Monitoring of inputs and outputs	L3.4.1	Condition 3.4.1 has been included on the licence for the monitoring of raw wastewater inflows to the wastewater treatment plant in m ³ /day. This is to formalise the monitoring and reporting of the throughput into the plant for comparison with the design capacity of the plant (240m ³ /day) and is a new requirement which was not on the previous version of the licence.	
Improvements	L4.1.1 – 4.1.2	<p>Conditions 4.1.1 and 4.1.2; IR1 and IR2 have been included on the licence in support of the need to assess and further manage the discharges of treated wastewater to the clay lined swale and offsite; and to the woodlot (see Emissions to surface water and Emissions to land sections above for risk assessment details).</p> <p>IR1 requires the preparation of a report on the condition of the woodlot, specifically the condition of the vegetation, any observed impacts and the plans for future use (if applicable). It is known that the woodlot did not perform effectively at reducing nutrient levels (<10% reduction) but the condition of the woodlot as a continued disposal option is unknown.</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		IR2 requires the preparation of a report on the performance of the clay lined swale since the commencement of the trial. This is a new requirement which was not on the previous licence; however is considered appropriate as the swale was originally constructed as a 2 year trial and the works approval did not contain any dedicated monitoring or reporting conditions. This condition serves to formalise the commitments made in the works approval application to review the performance of the swale after two years and gives a due date of 1 September 2016, in line with the Annual Environmental Report as requested by the Licensee.	
Records	L5.1.1 – 5.1.4	Condition 5.1.1 and 5.1.2 have been included on the licence setting general requirements relating to the maintenance and access of records kept and the need for a copy of the licence to be available to staff at the Premises at all times. These were not requirements on the old version of the licence, with exception to condition 5 which required records of complaints to be made available on request. Condition 5.1.3 has been included on the licence for the Annual Audit Compliance report, and is equivalent to condition 3 of the previous licence. Condition 5.1.4 has been included on the licence for the recording of complaints received about the premises and is a summarised version of condition 4 from the previous version of the licence due to no complaints being received by DER over the past few years.	
Reporting	L5.2.1 – 5.2.2	Conditions 5.2.1 and 5.2.2 have been included on the licence for the submission of an Annual Environmental Report, which effectively replaces condition 1 of the previous licence.	
Notification	L5.3.1	Condition 5.3.1 has been included on the licence to set notification requirements outside of the annual reporting. The condition requires the notification of any breaches of licence limits and the intent to discharge to the woodlot, which are both new notification requirements that were not on the previous licence version. The condition also requires the notification prior to taking any equipment offline which may result in odour, taking any treatment pond offline for maintenance, and the removal of septage sludge from any on-site treatment pond, all of which were existing notification requirements on condition 20 of the previous licence.	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Licence Duration	n/a	A duration of 5 years is recommended for the reissued licence. The potential maximum 20 year licence duration is not considered appropriate in this case as there is a need for further information to do a more thorough review of environmental risk (via improvement conditions) and as such the licence duration is set at 5 years, with the recommendation that the licence be reviewed and amended within 12 months of the issue date after information is provided in accordance with the improvement conditions.	



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
7/09/2015	Application advertised in West Australian (or other relevant newspaper)	Nil.	
29/09/2015	Proponent sent a copy of draft instrument	Table 2.2.2 of the licence – Requested re-wording of the averaging period for clarity	Have changed to specify how the limit applies
		Table 3.4.1 of the licence – Requested clarification and review of the wording in the averaging period for clarity	The words “monthly weighted average of samples” has been simplified to “monthly”. It is noted that the licensee has suggested the wording “monthly and cumulative” as per other tables; however this is not appropriate for this specific measurement (m ³ /day).
		Condition 4.1.1 – Noted administrative error in improvement condition ordering (IR2 before IR1)	This has been corrected. The IR condition numbers have not been changed but the order has.
		Condition 4.1.1 – Requested DER consider aligning the due date of IR2 with the due date for the 2015/2016 AER. It has been confirmed that the clay swale was commissioned in May 2014, so this due date will allow >2 years of monitoring data to be considered in assessing its performance.	In light of confirmation that the swale was commissioned in May 2014, the due date for the swale assessment has been amended to 1 September 2016 as requested.
		Condition 5.2.1 – Requested AER submission due date of 63 days after annual period, or 1 September to align with other licences	Amended to 63 days as requested.
		Decision Document - Correction of detail, that water is not chlorinated.	This reference was taken from historic information on file which was obviously incorrect. Reference to the chlorination has now been removed from the Decision Document.



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