

LICENCE FOR PRESCRIBED PREMISES Environmental Protection Act 1986

LICENCE NUMBER: L8563/2011/1 FILE NUMBER: 2011/004639

LICENSEE AND OCCUPIER OF PREMISES

Water Corporation 629 Newcastle Street Leederville WA 6007

NAME AND LOCATION OF PREMISES

Hopetoun Wastewater Treatment Plant Lot 10 of Deposited Plan 58973, Steeredale Road Hopetoun, WA, 6348 (as depicted in Attachment 2)

PRESCRIBED PREMISES CATEGORY

Schedule 1 of the Environmental Protection Regulations 1987

CATEGORY	DESCRIPTION	DESIGN CAPACITY	NOMINATED CAPACITY
54	Sewage facility	100 cubic metres or more per day	220 cubic metres per day

CONDITIONS OF LICENCE

Subject to the conditions of licence set out in the attached pages.

Date signed: 4 April 2016

Caron Goodbourn

A/Manager Licensing (Waste Industries)

Officer delegated under Section 20 of the Environmental Protection Act 1986

ISSUE DATE Thursday, 25 August 2011

COMMENCEMENT DATE: Friday, 26 August 2011

EXPIRY DATE: Wednesday, 24 August 2016

AMENDMENT DATE: Thursday, 7 April 2016 Page 1 of 10

LICENCE NUMBER: L8563/2011/1 FILE NUMBER: 2011/004639

DEFINITIONS

In these conditions of licence, unless inconsistent with the text or subject matter:

"AS/NZ 5667.1" means the most recent version and the relevant parts of the Australian and New Zealand series of guidance standards on Water Quality Sampling;

"APHA-AWWA-WEF" means American Public Health; American Water Works Association; Water Environment Federation;

"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

"licensee" means Water Corporation;

"mg/L" means milligrams per litre;

"NATA" means Australian National Association of Testing Authorities; and

"premises" means Lot 10 on Deposited Plan 58973, Hopetoun, Western Australia (as depicted in Attachment 2).

ISSUE DATE: Thursday, 25 August 2011

AMENDMENT DATE: Thursday, 7 April 2016 Page 2 of 10

LICENCE NUMBER: L8563/2011/1 FILE NUMBER: 2011/004639

GENERAL CONDITIONS

MAINTENANCE OF WASTEWATER TREATMENT PONDS

- 1. The licensee shall manage the wastewater treatment ponds in a manner such that:
 - a) stormwater runoff resulting from site drainage shall be prevented from entering the wastewater treatment ponds with the exception of the minimum necessary volume of stormwater stored within the evaporation ponds for the purpose of maintaining the pond walls and floor integrity;
 - b) stormwater runoff resulting from site drainage shall be prevented from causing the erosion of outer pond embankments;
 - c) overtopping of the wastewater treatment ponds does not occur;
 - d) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments; and
 - e) trapped overflows shall be maintained between treatment ponds to prevent carry-over of surface floating matter to subsequent ponds.

SOLID WASTE CONDITIONS

- 2. The licensee shall:
 - a) advise the CEO in writing no less than 72 hours prior to taking a treatment pond within the premises offline for maintenance works;
 - b) advise the CEO in writing no less than 14 days prior to the removal of sewerage or sludge from a treatment pond; and
 - c) where sludge is temporarily stored on-site, direct sludge to a low permeability hard stand area which:
 - i. is adequately bunded to prevent surface run-off of leachate or sludge; and
 - ii. is designed to return all sludge leachate from the storage area back to the treatment ponds.

MONITORING DEVICES

3. The licensee shall maintain devices for measuring monthly cumulative volumes of wastewater through the wastewater treatment plant as per licence condition 5. The monthly flow results shall be presented in the annual environmental report in a tabular form.

MONITORING CONDITIONS

- 4. The licensee shall conduct a monitoring program which addresses the requirements stated in Table 1.
- The licensee shall ensure all samples are analysed in a laboratory holding NATA accreditation for the analytes specified in condition 5.

ISSUE DATE: Thursday, 25 August 2011

AMENDMENT DATE: Thursday, 7 April 2016 Page 3 of 10

LICENCE NUMBER: L8563/2011/1 FILE NUMBER: 2011/004639

Table 1: Sampling and monitoring program.

Column 1	Column 2	Column 3	Column 4
Monitoring locations	Frequency	Parameter	Method
Groundwater Monitoring Bores MW10 MW11 MW13 MW14 (As depicted Attachment 2)	Quarterly (January, April, July and October each year)	Total Nitrogen mg/L; Ammonium mg/L; Nitrate + Nitrite mg/L; Total Phosphorus mg/L; Total Dissolved Solids mg/L; Electrical Conductivity; pH; and Standing Water Level mAHD.	AS/NZ 5667.1 Standard Methods for Examination of Water and Wastewater – APHA-AWWA-WEF
Sampling Point 1: outlet of the WWTP- from storage dam to evaporation pond. (As depicted Attachment 2)	Quarterly (January, April, July, October) when flowing	Total Nitrogen mg/L; Total Phosphorus mg/L; Ammonium mg/L; Nitrate + Nitrite (mg/L); Total Dissolved Solids mg/L Electrical conductivity; Biochemical Oxygen Demand (5-day filtered); pH; and E. Coli (coliform-forming units/100mL)	AS/NZ 5667.1 Standard Methods for Examination of Water and Wastewater – APHA-AWWA-WEF
Veal Street magflow meter: inflow to the WWTP (As depicted Attachment 3)	Continuous (monthly average) when flowing	Inflow quantity (kL)	Flow Meter

REPORTING CONDITIONS

DISCHARGE REPORTING

- 6. The licensee shall advise the CEO in writing within 72 hours of becoming aware of any discharge of treated wastewater to the environment.
- 7. The licensee shall ensure the written advice required by condition 7 includes, but not be limited to:
 - a) the date, time and probable reason for the discharge;
 - b) an estimate of the period over which the treated wastewater was or is likely to be discharged; and
 - c) an estimate of the extent and the volume of the discharge over that period and indication of known or potential environmental impacts.
- 8. The licensee shall undertake an investigation into any discharge reported under condition 8 within 24 hours of becoming aware of the discharge.

ISSUE DATE: Thursday, 25 August 2011

AMENDMENT DATE: Thursday, 7 April 2016 Page 4 of 10

LICENCE NUMBER: L8563/2011/1 FILE NUMBER: 2011/004639

- 9. The licensee shall provide a report on the investigation required by condition 8 within seven working days of the discharge, the report shall include, but not be limited to:
 - a) the date, time and reason for the discharge;
 - b) the period over which the discharge occurred;
 - c) the extent and the volume of the discharge and potential or known environmental impacts;
 - d) corrective action taken or planned to mitigate adverse environmental impact; and
 - e) corrective action taken or planned to prevent a recurrence of the discharge, including a timeline for implementation.

ANNUAL ENVIRONMENTAL REPORT

10. The licensee shall provide to the CEO by **1 September each year**, an annual environmental report containing the data required by all conditions of this licence, for the twelve month period beginning **1 July** the previous year, and ending on **30 June** in that year.

ANNUAL AUDIT COMPLIANCE REPORT

11. The Licensee shall, by **1 September each year**, provide to the CEO an annual audit compliance report in the form in Attachment 1 to this licence, signed and certified in the manner required by Section C of the form, indicating the extent to which the licensee has complied with the conditions of this licence, and any previous licence issued under Part V of the Act for the Premises, during the period beginning **1 July** the previous year and ending on **30 June** in that year.

ISSUE DATE: Thursday, 25 August 2011

AMENDMENT DATE: Thursday, 7 April 2016 Page 5 of 10

ATTACHMENT 1 – ANNUAL AUDIT COMPLIANCE REPORT				
LICENCE NUMBER L8563/2011/1	FILE NUMBER: 2011/004639			
SECTION A				
LICENCE DETAILS				
Licence Number:	Licence File Number:			
Company Name:	ABN:			
Trading as:				
Reporting period:to _				
STATEMENT OF COMPLIANCE WITH LICENCE	CONDITIONS			
Were all conditions of licence complied with with appropriate box	thin the reporting period? (please tick the			
appropriate box)	Yes Please proceed to Section C			
	No □ Please proceed to Section B			
Each page must be initialed by the person(s) who s	igns Section C of this annual audit compliance			

ISSUE DATE: Thursday, 25 August 2011

report

AMENDMENT DATE: Thursday, 7 April 2016 Page 6 of 10

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 DEC?				
Yes Reported to DEC verbally Date No				
Reported to DEC in writing Date				
d) Has DEC taken, or finalised any action in relation to the non compliance?				
e) Summary of particulars of 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				
11,7 toller talter of that this be talter to imagate any develop enough of the field compliance				
i) Action taken or that will be taken to prevent recurrence of the non compliance				
Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report				
INITIAL:				

ISSUE DATE: Thursday, 25 August 2011

AMENDMENT DATE: Thursday, 7 April 2016

FILE NUMBER: 2011/004639

SECTION C - SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report may only be signed by a person(s) with legal authority to sign it. The ways in which the Annual Audit Compliance Report 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 Annual Audit Compliance Report 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		The Annual Audit Compliance Report must be signed and certified:
an individual		by the individual licence holder, or
an marvidual		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		by the principal executive officer of the licensee; or
company		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.
		by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or
		by two directors of the licensee; or
A corporation		by a director and a company secretary of the licensee, or
A corporation		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		by the principal executive officer of the licensee; or
(other than a local government)		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		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.

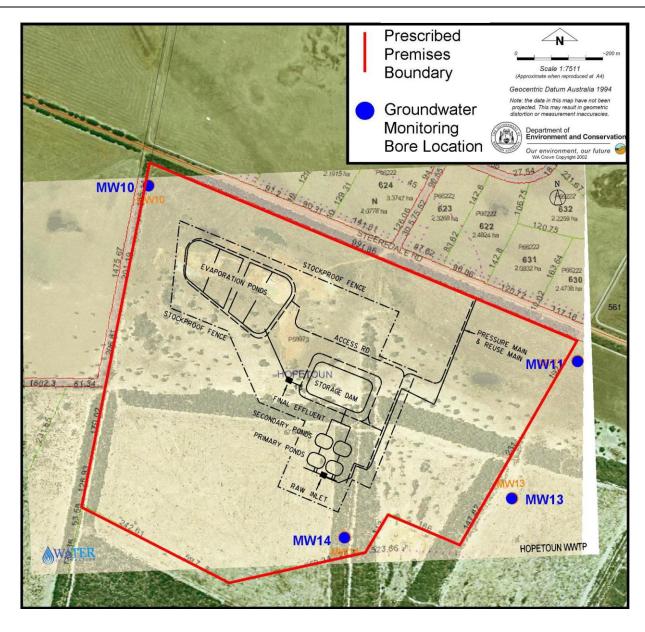
SIGNATURE:	SIGNATURE:
NAME: (printed)	NAME: (printed)
POSITION:	POSITION:
DATE:/	DATE://
SEAL (if signing under seal)	

ISSUE DATE: Thursday, 25 August 2011

AMENDMENT DATE: Thursday, 7 April 2016

ATTACHMENT 2 - PRESCRIBED HOPETOUN WASTEWATER TREATMENT PLANT PLAN

LICENCE NUMBER: L8563/2011/1 FILE NUMBER: 2011/004639

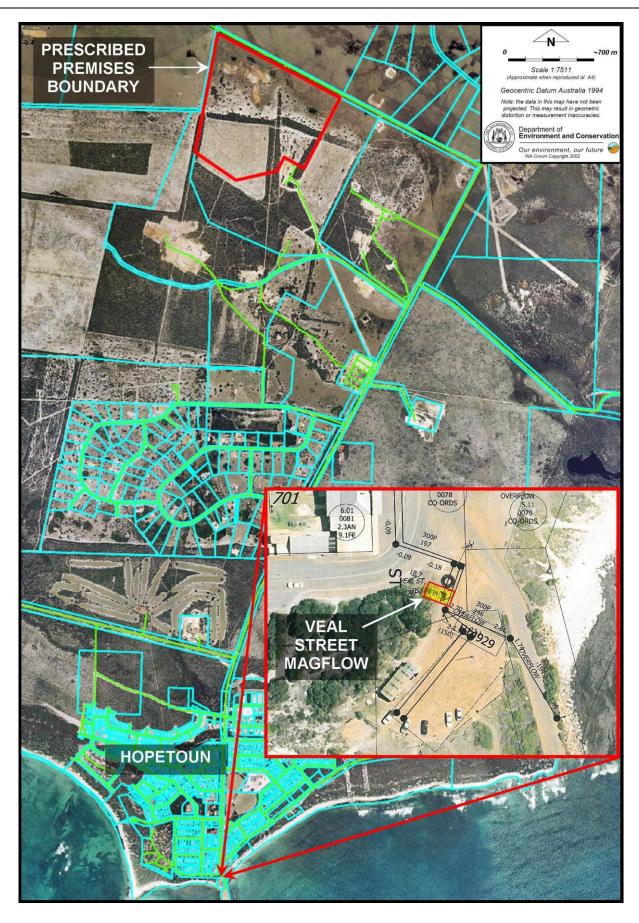


ISSUE DATE: Thursday, 25 August 2011

AMENDMENT DATE: Thursday, 7 April 2016 Page 9 of 10

ATTACHMENT 3 - VEAL STREET MAGFLOW METER LOCATION

LICENCE NUMBER: L8563/2011/1 FILE NUMBER: 2011/004639



ISSUE DATE: Thursday, 25 August 2011

AMENDMENT DATE: Thursday, 7 April 2016 Page 10 of 10



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Water Corporation

Licence: L8563/2011/1

Registered office: 629 Newcastle Street

Leederville WA 6007

Premises address: Hopetoun Wastewater Treatment Plant

Steeredale Road HOPETOUN WA 6348

Being Lot 10 on Deposited Plan 58973

Issue date: Thursday, 25 August 2011

Commencement date: Friday, 26 August 2011

Expiry date: Wednesday, 24 August 2016

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:

Tessa Smith

Licensing Officer

Decision Document authorised by: Caron Goodbourn

Delegated Officer

Environmental Protection Act 1986 Decision Document: L8563/2011/1 File Number: 2011/004639

Contents

De	cision Document	1
Co	ntents	2
1	Purpose of this Document	2
2	Administrative summary	2
3	Executive summary of proposal and assessment	3
4	Decision table	6
5	Advertisement and consultation table	8
6	Risk Assessment	9

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 New Licence Licence amendme Works Approval an		□ □ ⊠ ent □
Activities that cause the premises to become prescribed premises	Category number(s)		Assessed design capacity
	54		220 cubic metres per day
Application verified	Date: 9/6/15		
Application fee paid	Date: N/A		
Works Approval has been complied with	Yes No	N/A	$A \boxtimes$
Compliance Certificate received	Yes No	N/A	A⊠
Commercial-in-confidence claim	Yes□ No⊠		
Commercial-in-confidence claim outcome			
Is the proposal a Major Resource Project?	Yes□ No⊠		
Was the proposal referred to the Environmental		Refe	erral decision No:
Protection Authority (EPA) under Part IV of the Environmental Protection Act 1986?	Yes□ No⊠	Man	aged under Part V
Environmental Protection Act 1980?		Asse	essed under Part IV
Is the proposal subject to Ministerial Conditions?	Yes□ No⊠	Minis	sterial 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☐ No☒ Department of Water consulted Yes ☐ No ☒		
Is the Premises within an Environmental Protection Policy (EPP) Area Yes□ No⊠			
Is the Premises subject to any EPP requirements?	Yes□ No⊠		

3 Executive summary of proposal and assessment

The Hopetoun WWTP premises is located approximately 5.5 km north of Hopetoun on the southern side of Steeredale Road, on Lot 10 of Deposited Plan 58973.

The closest odour sensitive receptors are:

- a residential building located approximately 1,150 m south of the Site;
- a residential building south of Steeredale Road located approximately 1,300 m north– north-west of the Site; and
- the BHP Billiton mining workers camp 'Wave Crest Village', approximately 1,500 m south of the Site.

Other non-sensitive surrounding land-uses include:

- East: Agriculture, including a shed approximately 320 m from the Site boundary on Lot 8 Steeredale Road;
- West: Agriculture;
- North: Steeredale Road and agriculture; and
- South: Horizon Power Hopetoun wind-diesel power plant approximately 80 m to the south and agriculture.

A site-specific drilling investigation completed by GHD in 2005 indicated that sands, gravel and limestone underlie the Site. Groundwater was encountered between 8.2 – 10.2 m below ground level. A Priority 2 Public Drinking Water Source Area is located approximately 1000m south of the Premises.

The main drainage systems are the Steere and Jerdacuttup Rivers, which flow intermittently southwards to wetlands within the coastal dune system. There are no wetlands or watercourses within the Site. Culham Inlet wetland is situated approximately 2.5 km west of the Site.

Licence L8563/2011/1 was issued for stage 1 of the Hopetoun WWTP operations. Stage 1 operations consist of wastewater being treated in an aerated pond system, with the treated wastewater directed via a storage dam to a series of evaporation basins. The process flow diagram is shown in Figure 1 below. Stage 1 of the Hopetoun WWTP has a design flow of 220 m³/ day to accommodate a population of 1,100 Equivalent Persons ('EP') and consists of the following:

- 2 lined primary ponds (3.1 ML each and a hydraulic retention time of 14 days)
- 2 lined secondary ponds (3.1 ML each and a hydraulic retention time of 14 days)
- Storage Dam (102 ML)
- 4 evaporation pond cells (22 ML with 4 ha surface area in total).

Environmental Protection Act 1986 Decision Document: L8563/2011/1 File Number: 2011/004639



A 7.5 kW floating surface aerator is installed in each of the two primary ponds. An alum dosing system is installed to enable phosphorus precipitation within the ponds to enhance reuse of treated wastewater.

The process design parameters (influent) for the treatment plant are listed as follows:

Serviced Population 1.100 EP: 200 L /EP/ day: Per capita flow 220 m³/ day; Dry weather flow Peak flow factor 2.0: Biochemical Oxygen Demand 265 mg/L; **Total Suspended Solids** 265 mg/L; 60 mg/ L; and **Total Nitrogen Total Phosphorus** 12 mg/L.

Critical mechanical components of the Hopetoun WWTP are remotely monitored via the Water Corporation's Wide Area Network (WAN) and alarms will be communicated directly to the John Tonkin Centre in Perth. A local Water Corporation operator is responsible for maintenance and repair.

Over a 20-30 year period, there will be an accumulation of sludge and organic matter on the floor of the ponds. The ponds will need to be desludged at intervals of 5 to 10 years to maintain treatment plant effectiveness.

Stage 2 (which has not been assessed) would commence when additional development areas at a later stage become connected to the wastewater scheme, and will include upgrades to the plant to serve 3,500 EP with a maximum throughput of 700 m³/ day. The ultimate planned capacity of the final plant is expected to be 5,500 EP with a maximum throughput of 1,100 m³/ day.

This Licence is the result of an amendment application by the Licensee to alter condition 1(a) of the Licence to allow for the storage of sufficient stormwater runoff within the evaporation ponds such that the integrity of the engineered clay liner is maintained. Some administrative and minor updates have also been applied to the Licence. As part of the amendment DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the Licence was originally issued in 2011. No significant changes have occurred, however the existing regulatory control for odour has been amended as detailed within the Decision Table below.

Licence amendment: Thursday 7 April 2016

Environmental Protection Act 1986 Decision Document: L8563/2011/1 File Number: 2011/004639 Page 4 of 9

IRLB_TI0669 v2.7

HOPETOUN STAGE 1A WASTEWATER TREATMENT PROCESS FLOW DIAGRAM

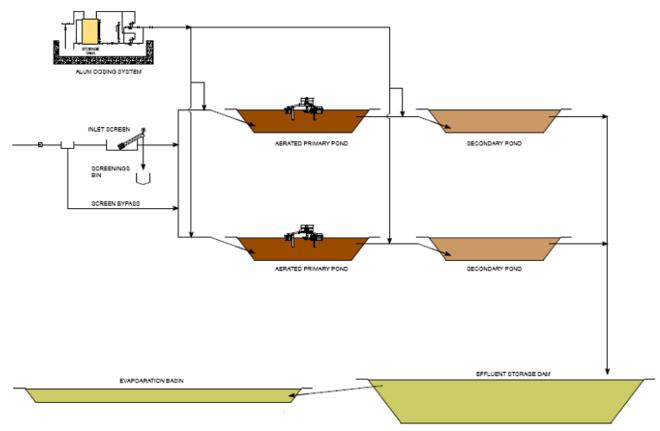


Figure 1: Process flow diagram for Hopetoun Wastewater Treatment Plant



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 TAR	DECISION TABLE					
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents			
Definitions	N/A	 The following changes have been made to the definitions within the Licence: The term "AS/NZS 5667 or Australian Standard 5667" has been amended to "AS/NZ 5667.1" as this is the term that is used within the Licence conditions. The definitions for "Director" and "Director" for the purpose of correspondence have been replaced with a definition for "CEO" and "CEO" for the purpose of correspondence. The term Director has been replaced with CEO throughout the conditions of the Licence. 				
General L1, L2 conditions		Condition L1(a) has been amended as requested by the Licensee. Condition L1(a) specified that stormwater runoff resulting from site drainage shall be prevented from entering the wastewater treatment ponds. The Licensee requested that this requirement be amended to allow the storage of sufficient stormwater runoff within the evaporation ponds such that the integrity of the engineered clay liner is maintained. The drying out of the liner may affect its integrity. This is considered acceptable, provided that only the minimum necessary controlled supply of water is diverted to the evaporation ponds, and this is not likely to cause erosion of the outer pond embankments. Condition L1(a) has been amendment to state that there is the exception for the minimum necessary volume of stormwater to be stored within the evaporation ponds for the purpose of maintaining the pond walls and floor integrity.	Hopetoun Wastewater Treatment Plant L8563/2011/1: Licence Amendment Application and Application Form received on 5 June 2015.			
		Condition L1(c) of the existing Licence has been removed, as this requirement is not considered enforceable and the requirements for compliance are not clear. The term discernible is not considered an objectively measureable amount. The licence requires quarterly groundwater monitoring from four groundwater bores located around the				

Licence amendment: Thursday 7 April 2016



DECISION TAI			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		premises. The groundwater monitoring is considered sufficient regulatory control for the detection of seepage from the ponds.	
Odour	N/A	Emission Description Emission: Odour from wastewater treatment ponds and the desludging process and drying of sludge. The ponds will need to be desludged at intervals of 5 to 10 years to maintain treatment plant effectiveness. Impact: Reduced local air quality and nuisance for persons not on site. The nearest sensitive receptor is located 1150m from the Premises. Controls: Aerators are maintained within the two primary treatment ponds. Desludging activities are infrequent (every 5 to 10 years).	General provisions of the Environmental Protection Act 1986
		Risk Assessment Consequence: Insignificant Likelihood: Unlikely Risk Rating: Low	
		Regulatory Controls It is considered that provisions of Section 49 of the Environmental Protection Act 1986 are sufficient to regulate odour emissions. Condition 2 of the existing Licence has been removed.	
		Residual Risk Consequence: Insignificant Likelihood: Unlikely Risk Rating: Low	
Licence Duration	N/A	There has been no change to the duration of the Licence.	



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
10/03/2016	1 17	No comments received. 21 day period ended on 31/3/2016	N/a

Licence amendment: Thursday 7 April 2016



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