LICENCE FOR PRESCRIBED PREMISES Environmental Protection Act 1986

LICENCE NUMBER: L6314/1991/12 **FILE NUMBER:** 2011/000052

LICENSEE

Water Corporation 629 Newcastle Street LEEDERVILLE WA 6007 ABN: 28 003 434 917

PREMISES

Mount Barker Wastewater Treatment Plant Lot 610 on Plan 187856 and Lot 575 on Plan 175884 MOUNT BARKER WA 6324 Being Lot 610 on Plan 187856 and Lot 575 on Plan 175884 as depicted in Schedule 1

PRESCRIBED PREMISES CATEGORY

Schedule 1 of the Environmental Protection Regulations 1987

CATEGORY NUMBER	CATEGORY DESCRIPTION	CATEGORY PRODUCTION OR DESIGN CAPACITY	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	1280 cubic metres per day

CONDITIONS

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

Date signed: 22 October 2015

Ruth Dowd

Senior Manager – Industry Regulation (Waste Industries)

Officer delegated under Section 20

of the Environmental Protection Act 1986

LICENCE NUMBER: L6314/1991/12 **FILE NUMBER:** 2011/000052

DEFINITIONS

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

'Act' means the Environmental Protection Act 1986;

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

'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;

'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

'Discernible' means capable of being seen, noticed or observed;

'Extreme Rainfall Event' means the rainfall quantity from a one in ten year rainfall event of 72 hours duration, as defined by 'Australian Rainfall and Runoff: A Guide to Flood Estimation' (Institution of Engineers, 1987);

'Final Effluent Sample Point' means the location of the final effluent sample point as labelled 'SP Final Effluent Disch WWTP Mt Barker' in Schedule 1;

'Licence' means this Licence numbered L6314/1991/12 and issued under the Act:

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

'Mouth Barker WWTP upgrade works/ storage tank installation' means the document Water Corporation documents dated 22 September 2015 and titled Mouth Barker WWTP upgrade works/ storage tank installation;

'NATA' means National Association of Testing Authorities;

'Premises' means Lot 601 on Plan 187856 and Lot 575 on Plan 175884;

'Reuse Offtake Point' means reuse point for third party use as labelled 'SP Final Effl Post Chlor WWTP 2 Mt Barker' in Schedule 1;

'Wastewater Discharge Point' means wastewater discharge point and labelled '*Final effluent discharge to environment Magflow Meter*' in Schedule 1;

LICENCE NUMBER: L6314/1991/12 **FILE NUMBER:** 2011/000052

GENERAL CONDITIONS

- (1) 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.
- (2) The Licensee must undertake the installation of the storage tank and submerged pump in accordance with the document Mouth Barker WWTP upgrade works/ storage tank installation.

MAINTENANCE OF WASTEWATER TREATMENT PONDS

- (3) 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 and causing the erosion of outer pond embankments;
 - (b) overtopping of the wastewater treatment ponds does not occur except as a result of an Extreme Rainfall Event;
 - (c) there is no discernible seepage loss from the ponds;
 - (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 carryover of surface floating matter to subsequent ponds.

TREATED WASTEWATER DISCHARGE

- (4) The Licensee shall:
 - (a) make available treated wastewater for reuse; and
 - (b) maintain the Reuse Offtake Point to allow for the reuse of treated wastewater.
- (5) The Licensee shall only discharge treated wastewater through the Wastewater Discharge Point:
 - (a) in a mechanical malfunction or emergency situation; or
 - (b) as a result of an Extreme Rainfall Event.

SAMPLING AND MONITORING

(6) The Licensee shall conduct a monitoring program which measures the parameters stated in column 2 of Table 1 at the frequency stated in column 3 of Table 1, using the corresponding methods listed in column 4 of Table 1 at the location stated in column 1 of Table 1 for each row.

Table 1: Sampling and monitoring program

	Column 1	Column 2	Column 3	
	Location	Parameters to be measured	Sampling frequency	Method
Row 1	Reuse Offtake Point flow meter	Volume of treated wastewater Discharge (kL) ¹	Monthly cumulative	None applicable

LICENCE NUMBER: L6314/1991/12 **FILE NUMBER:** 2011/000052

Row 2	Wastewater Discharge Point flow meter	Volume of treated wastewater Discharge (kL) ¹	Monthly cumulative	None applicable
Row 3	Flow measurement inlet flume flow meter	Volume of wastewater entering the ponds (kL) ¹	Monthly cumulative	None applicable
Row 4	Final Effluent Sample Point	Total Suspended Solids (mg/L) Total Dissolved Solids (mg/L) Biochemical Oxygen Demand (mg/L) Total Nitrogen (mg/L) Ammonium-nitrogen (mg/L) Nitrate + Nitrite-Nitrogen (mg/L) Total Phosphorus (mg/L) pH (in pH units) ¹ E. coli (coliform-forming units/100mL)	January, February, March, April, May, June, July, August, September, October, November, December.	AS/NZS 2031 AS/NZS 5667.1 AS/NZS 5667.10

Note 1: In-field non-NATA accredited analysis permitted.

- (7) The Licensee shall collect, handle and preserve all water samples in accordance with the relevant parts of the Australian Standard 5667.
- (8) The Licensee shall ensure all water samples are analysed in a laboratory holding NATA accreditation for the analyses specified in condition 6.

CALCULATION OF CONTAMINANT LOAD

(9) The Licensee shall using the data collected in accordance with condition 6, determine the load of each contaminant in wastewater discharged through the Reuse Offtake Point as stated in column 1 of Table 2 at the frequency stated in column 2 of Table 2 and in the corresponding units stated in column 3 of Table 2.

Table 2: Calculation of contaminant load

Column1	Column 2	Column 3
Parameters	Calculation frequency	Units
Total Dissolved Solids;	Quarterly and Annual	kg/day
Biochemical Oxygen Demand;	Loads	
Total Nitrogen		
Total Phosphorus.		

SOLID WASTE CONDITIONS

- (10) The Licensee shall dispose of collected vegetation and floating debris from the treatment ponds to a licensed landfill.
- (11) The Licensee shall:
 - (a) advise the CEO in Writing no less than 72 hours prior to taking a treatment pond offline for maintenance works:
 - (b) advise the CEO in Writing no less than 14 days prior to the removal of sewage sludge from a treatment pond; and

LICENCE NUMBER: L6314/1991/12 **FILE NUMBER:** 2011/000052

- (c) where sewage sludge is temporarily stored on-site, direct sewage sludge to a hardstand area which:
 - (i) is adequately bunded to prevent surface runoff of leachate or sludge; and
 - (ii) return sludge leachate from the storage area back to the treatment ponds.

REPORTING CONDITIONS

DISCHARGE REPORTING

- (12) The Licensee shall advise the CEO in writing within 72 hours of becoming aware of any discharge of treated wastewater to the environment or through the Wastewater Discharge Point.
- (13) The Licensee shall ensure the written advice required by Condition 12 include, 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.
- (14) The Licensee shall undertake an investigation into any discharge reported under Condition 12 within 24 hours of becoming aware of the discharge.
- (15) The Licensee shall provide a report on the investigation required by Condition 14 within 7 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

- (16) The Licensee shall provide to the CEO by 1 September each year, a copy of an Annual Environmental Report containing data collected during the reporting period beginning 1 July the previous year and ending on 30 June in that year. The report shall contain, but not be limited to:
 - (a) monitoring data and other collected data required by any condition of this Licence (data should be provided in tables and in graphical format);
 - (b) an explanation of the monitoring data and other collected data required by any condition of this Licence:
 - (i) in comparison with past monitoring data collected for the previous three years; and
 - (ii) known standards;
 - (c) the number and type of complaints received, including nature of complaint (cross referenced with prevailing wind directions), and action taken;
 - (d) any issues raised from inspections or incident responses during the reporting period together with details as to how these have been addressed / rectified or, if the required work has yet to be completed, how and when they will be completed / rectified;
 - (e) any changes to site boundaries, location of groundwater monitoring bores, surface drainage channels and on-site or off-site impacts or pollution; and

LICENCE NUMBER: L6314/1991/12 **FILE NUMBER:** 2011/000052

(f) any discharges of treated wastewater to the environment or through the Wastewater Discharge Point.

ANNUAL AUDIT COMPLIANCE REPORT

(17) The Licensee shall by 1 September in each year, provide to the CEO an Annual Audit Compliance Report in the form in Schedule 2 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.

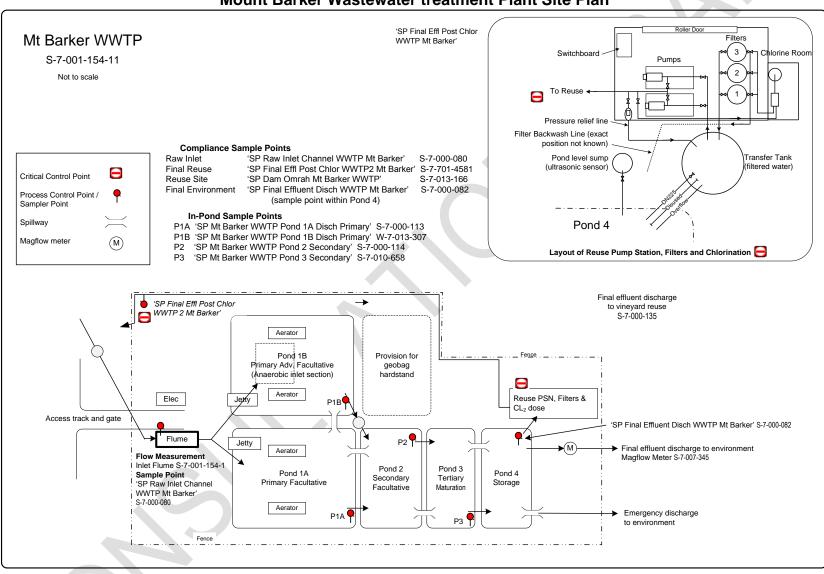
LICENCE NUMBER: L6314/1991/12 **FILE NUMBER: 2011/000052**

MOUNT BARKER WASTEWATER TREATMENT PLANT PRESCRIBED PREMISES MAP



ISSUE DATE Monday, 26 October 2015 Page 7 of 11 **LICENCE NUMBER**: L6314/1991/12 FILE NUMBER: 2011/000052

Mount Barker Wastewater treatment Plant Site Plan



ISSUE DATE Monday, 26 October 2015 Page 8 of 11

SCHEDULE 2

ANNUAL AUDIT COMPLIANCE REPORT

SECTION A

LICENCE DETAILS

Licence Number: L8021/2003/4	Licence File Number: 2011/009091
Company Name: Water Corporation	ABN: 28 003 434 917
Trading as:	
Reporting period:	
to	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

١.	Were all conditions of licence complied with within the reporting period? (please tick the appropriation)	ate
	Yes Please proceed to Section	С
	No □ Please proceed to Section	В

Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report

ΙΝΙΤΙΔΙ ·

SCHEDULE 2

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?				
☐ Yes ☐ Reported to DER verbally Date	□ No			
☐ Reported to DER in writing Date				
d) Has DER taken, or finalised any action in relation to the nor	n compliance?			
e) Summary of particulars of compliance 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 initialed by the person(s) who signs Section C of this annual audit compliance report

ΙΝΙΤΙΔΙ			
IINII I I A I			

SCHEDULE 2

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:
	by the individual licence holder, or
An individual	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	by the principal executive officer of the licensee; or
unincorporated 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
	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 outbority	by the principal executive officer of the licensee; or
A public authority (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
a local government	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:/



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Water Corporation

Licence: L6314/1991/12

Registered office: 629 Newcastle Street

LEEDERVILLE WA 6007

Premises address: Mount Barker Wastewater Treatment Plant

Lot 610 on Plan 187856 and Lot 575 on Plan 175884

MOUNT BARKER WA 6324

Being Lot 610 on Plan 187856 and Lot 575 on Plan 175884 as depicted

in Schedule 1

Issue date: Monday, 26 October 2015

Commencement date: Sunday, 1 November 2015

Expiry date: Saturday, 31 October 2016

Decision

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

Decision Document prepared by: Peter van Schoubroeck

Licensing Officer

Decision Document authorised by: Caron Goodbourn

Delegated Officer



Contents

Co	ontents	2
1	Purpose of this Document	2
2	Administrative summary	3
3	Executive summary of proposal and assessment	4
4	Decision table	5
5	Advertisement and consultation table	9
6	Risk Assessment	10

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 amendment Works Approval amendment		
Activities that cause the premises to become prescribed premises	Category number(s	Assessed design capacity	
prescribed premises	54	1280 cubic metres per day	
Application verified	Date: 11/08/2015		
Application fee paid	Date: 20/08/2015		
Works Approval has been complied with	Yes No	N/A⊠	
Compliance Certificate received	Yes No	N/A⊠	
Commercial-in-confidence claim	Yes□ No⊠		
Commercial-in-confidence claim outcome	None applicable		
Is the proposal a Major Resource Project?	Yes□ No⊠		
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the Environmental Protection Act 1986?	Yes□ No⊠	Referral decision No: Managed under Part V Assessed under Part IV	
Is the proposal subject to Ministerial Conditions?	Yes⊠ No⊠	Ministerial statement No: EPA Report No:	
Does the proposal involve a discharge of waste into a designated area (as defined in section 57	Yes□ No⊠		
of the Environmental Protection Act 1986)?	Department of Water consulted Yes ☐ No ☒		
Is the Premises within an Environmental Protection Policy (EPP) Area Yes⊠ No ☐ Environmental Protection South West Agriculture Zone Wetlands Policy 1998.			
Is the Premises subject to any EPP requirements? Yes□ No⊠			



3 Executive summary of proposal and assessment

The Mount Barker Wastewater Treatment Plant (MWWTP) is located within the Shire of Plantagenet about 1.3 kilometres north east of the Mount Barker town centre. Under the Shire of Plantagenet local planning scheme land located adjacent to the west is zoned public purpose and land location adjacent to the north, south and extending eastwards is zoned recreational. The local high school (buildings located about 850 m northwest) occupies most of the land further north and west and land to the south is zoned rural residential. The nearest residential neighbours are located about 350 m south of the Premises.

The MWWTP operated at a 160 kL/ day capacity since about 1991 until under works approval W4263/1991/1 the MWWTP was upgraded in 2009 to a 320 m 3 / day dry weather organic treatment capacity via the installation of a secondary primary pond. The peak inflow capacity of the MWWTP is 1280 m 3 / day. Treated wastewater from the MWWTP is provided to the Omrah Vineyard under a reuse arrangement, these accounts for up to 80 ML per year of the discharge from the MWWTP. The reuse arrangement is intended to account for all discharges of wastewater from the MWWTP.

The MWWTP has been subject to periodic discharges to the environment of partially treated sewage over more than a decade. Table 1 provides a summary of the known discharge history since 2010, following the last upgrade to the MWWTP. Discharges to the MWWTP, cause by overflow, discharge into to the environment via an ephemeral creek which flows to north east and falls within the Oyster Harbour catchment. The creek passes through land occupied by the Department of Education and subsequent private land holders. The cause of the discharges is attributed to elevated inflows to the MWWTP which results in overflow of the ponds.

The current MWWTP consists of the following operations and infrastructure:

- Two primary treatment ponds with two 2.2 kW aerators each;
- · Secondary, tertiary and polishing pond;
- · Spillways connecting all pond, including the polishing pond spillway to the environment;
- A total pond holding capacity of ~15,000 kL;
- · Reuse off-take pump station; and
- Sludge drying bed.

Discharges of treated wastewater to land are managed by treating wastewater before transfer of up to 80 ML per year to the Omrah Vineyard storage dam prior to onsite irrigation. Sludge waste is stored within Geotube installations with leachate returned to the wastewater treatment system.

This Licence is the successor to licence L6314/1991/11 and includes the following changes:

- Administrative updates, including contact details for the Department of Environment Regulation and condition numbering;
- Addition of a condition to ensure that emissions not authorised through the licence comply with the provisions of the *Environmental Protection Act 1986* (new condition 1).
- Addition of a condition to authorise the installation of an additional storage tank within the wastewater reuse system;
- Removal of a condition specific to odour emissions;
- Removal of a condition specific to sludge disposal requirements; and
- Addition of a condition for the assessment of overflow events at the Premises, associated risks and options to mitigate the risks.

The emission risks associated with the treatment of sewerage and discharge of treated wastewater from the MWWTP have not been assessed as part of the Licence except for fugitive odour emissions.



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 and L2	Operation Condition 1 has been included to ensure that emissions at the Premises not authorised through the licence comply with the provisions of the <i>Environmental Protection Act</i> 1986.	General provisions of the Environmental Protection Act 1986	
		Condition 1 has been included to ensure that the proposed upgrade to the treated wastewater reuse system with the addition of a 25 kL storage tank and a submerged pump is undertaken within the design specifications.		
		Condition 10 in licence version L6314/1991/11 has been removed from the Licence. The management and disposal of sludge and biosolid waste outside of the prescribed premises is beyond the provisions of the licence. Management of such waste is regulated by the General provisions of the <i>Environmental Protection Act 1986</i> .		
Emissions to land including monitoring	L6	Operation Condition 5 (being condition 4 in licence version L6314/1991/11) has been amended to clarify relevant monitoring locations and methods.	General provisions of the Environmental Protection Act 1986	



Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Fugitive emissions (Odour)	N/A	Operation Emission Description Emission: Odour may be generated from the WWWTP treatment process, sludge storage compound and as a result of abnormal operating conditions. Impact: Interference with the health, welfare, convenience, comfort or amenity of sensitive commercial and residential receptors is possible. Potential receptors include the local high school (buildings located about 850 m northwest), the nearest residential neighbours are located about 350 m south of the Premises. No odour complaints have been identified in association with the operations at the MWWTP in recent years. Controls: Liquid waste is treated and maintained within the pond system. Sludge is managed via geotube installations. Risk assessment: Consequence: Minor Likelihood: Unlikely Risk Rating: Moderate Regulatory Controls It is considered that the provisions of Section 49 of the Environmental Protection Act 1986 are sufficient to regulate potential fugitive (odour) emissions from the liquid waste facility and any other fugitive emissions arising from activities at the Premises. Condition 11 in licence version L6314/1991/11 has been removed from the Licence. Risk assessment: Consequence: Minor Likelihood: Rare Risk Rating: Low	General provisions of the Environmental Protection Act 1986



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Licence N/A Duration	This Licence will be issued for one year, until late 2016. This timeframe takes into consideration the factors within the document <i>Guidance statement: licence duration</i> . No other statutory approvals have been identified as limiting the timeframe for the issue of this Licence. The risk of emissions and associated assessment of those emissions has not been completed as part of this licence reissue. Subsequently consideration for 20 year licence duration can be considered in accordance with the <i>Guidance Statement: Licence duration</i> .	Department of Environment Regulation 2015, Guidance statement: Licence duration	
			General provisions of the Environmental Protection Act 1986



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
31/08/2015	Application advertised in West Australian (or other relevant newspaper)	None applicable	None applicable
02/10/2015	Proponent sent a copy of draft instrument	Labelling of monitoring locations and capacity of treatment system clarified	Labelling of monitoring locations and capacity of treatment system details updated
26/10/2015	Instrument issue was advertised in West Australian		



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