



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Water Corporation

Licence: L5953/1991/14

Registered office: 629 Newcastle Street
LEEDERVILLE WA 6007

Premises address: Augusta Wastewater Treatment Plant
869 Leeuwin Road
AUGUSTA WA 6290
Being Lot 869 on Plan 190289

Issue date: Thursday, 30 October 2014

Commencement date: Saturday, 1 November 2014

Expiry date: Thursday, 31 October 2019

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.

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Licensing 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.

Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

Standard conditions (SC)

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

Optional standard conditions (OSC)

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions is justified in Section 4 of this document.

Non standard conditions (NSC)

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in Section 4.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	
	New Licence <input type="checkbox"/>	
	Licence amendment <input checked="" type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	54 – Sewage facility	248 cubic metres per day
Application verified	Date: N/A	
Application fee paid	Date: N/A	
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"/>
Is the proposal subject to Ministerial Conditions?	Referral decision No:	
	Managed under Part V <input type="checkbox"/>	
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>)?	Assessed under Part IV <input type="checkbox"/>	
	Ministerial statement No: 126	
Is the Premises within an Environmental Protection Policy (EPP) Area	EPA Report No: Assessment No. 302, Bulletin No. 457	
	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes include details of which EPP(s) here.	Department of Water consulted Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal and assessment

The Augusta Wastewater Treatment Plant (WWTP) is located southwest of the town of Augusta at the base of an airport runway. The plant was established in 1991 and serves a population of approximately 1,376. The plant is licensed to accept 248 cubic metres (m³) per day and treats wastewater to a secondary standard.

The soil underlying the area is generally loamy gravels, duplex sandy gravels, semi-wet soils and grey deep sandy duplexes. The uppermost aquifer beneath the site is the superficial Leeuwin aquifer, which is in turn underlain by a fractured limestone. The site is considered to be within the catchment of the Toolibin Lake (a Ramsar site).

The plant consists of three treatment ponds where the wastewater is treated to a secondary standard. Treated wastewater is discharged via infiltration within an onsite designated land disposal area. The wastewater is discharged via a number of pipes into the infiltration disposal area. During wet periods this disposal area becomes a wetland and eventually flows to the Redman Brook which in turn flows into Flinders Bay.

The main emissions from the site are discharges of treated wastewater to land and surface water. Adjacent premises include the Augusta airport and crown land. The closest sensitive premises is a farm residence located approximately 500 m east of the WWTP.

Discharges of treated wastewater to land are managed by treating the wastewater to a defined water quality level and undertaking compliance monitoring prior to discharge.

DER has amended the licence and converted it into the new standardised REFIRE format. During the conversion process, DER has not reassessed the acceptability or impacts of emissions and discharges from the Premises or re-visited any existing emission control levels except for emissions to land. As part of the amendment, the period of the licence has been extended by a further four years as the previous reissue was for only one year.



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	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	1.2.5	OSC	<p>Stormwater contaminated from activities on the premises has not been reassessed as part of this amendment. OSC 1.2.5 has been included to replace condition W1(i) of the old format licence.</p> <p>Old format licence conditions S1(a) and S1(c) are replaced by standard general condition 1.2.1 and do not need to be included on the licence in a specific condition.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p>
Premises operation	L1.3.1 – L1.3.4 L1.3.5 L1.3.6	OSC OSC OSC	<p>Contaminated wastewaters entering the environment from the operation of the wastewater treatment ponds and infiltration area has not been reassessed as part of this amendment.</p> <p>OSC 1.3.1 has been included because there is a numerical limit in Table 1.3.3. OSC 1.3.2 includes waste acceptance type and specifications. OSC 1.3.3 has been included to replace the licensed throughput of the old format licence. The requirements for the temporary sewage sludge storage area in Table 1.3.4 have been included to replace condition S1(b)(iii) of the old format licence. OSC 1.3.5 has been included to replace condition W1(ii) – (v) of the old format licence. OSC 1.3.6 has been included to replace condition W6 of the old format licence.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p>



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Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Emissions general	L2.1.1	OSC	A target will be set through condition 2.5.2 of the licence and therefore OSC 2.1.1 regarding recording and investigation of exceedances of limits or targets has been included.	N/A
Point source emissions to air including monitoring	N/A	N/A	There are no point source emissions to air from the premises.	N/A
Point source emissions to surface water including monitoring	L2.3.1 L3.3.1	OSC OSC	Point source emissions to surface water have not been reassessed as part of this amendment. OSC 2.3.1 has been included to identify the discharge point to Redman Brook. The map in Attachment 1 – Plan of Premises showed this in the old format licence. OSC 3.3.1 has been included to replace part of condition W3 of the old format licence (monitoring of the WWTP discharge to Redman Brook (S8000397)). The old format licence included annual monitoring of “heavy metals”. Based on the 2013-2014 Annual Environmental Report for the Augusta WWTP, Water Corporation analysed the treated wastewater (discharge from WWTP infiltration area to Redman Brook) for heavy metals including: arsenic, cadmium, chromium, lead, mercury, nickel, selenium and zinc. These metals have been included on the licence to replace the requirement for “heavy metals” in the old format licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Point source emissions to groundwater including monitoring	N/A	N/A	There are no point source emissions to groundwater from the premises.	N/A
Emissions to land including monitoring	L2.5.1 L2.5.2 L3.5.1	OSC OSC OSC	<u>Emission Description</u> <i>Emission:</i> Treated wastewater is discharged to an infiltration area. <i>Impact:</i> If water containing excessive nutrients or other contaminants is discharged to land, the soil can become contaminated and there can be impacts	General provisions of the <i>Environmental Protection Act</i>



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			<p>of surface water or groundwater as the contaminants are carried down to the groundwater or run-off to surface water. <i>Controls:</i> Wastewater is treated to a secondary standard by the treatment plant and is discharged to the infiltration area.</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> OSC 2.5.1 describes the emission point for discharges to land as the map in Attachment 1 – Plan of Premises did in the old format licence. OSC 2.5.2 sets a target for biochemical oxygen demand. This replaces an expectation of the WWTP performance that was outlined in the preamble of the old format licence; which stated that it is expected that the treatment plant will be operated to “achieve a target filtered 5-day biochemical oxygen demand (BOD) discharge concentration of less than 20 mg/L”. DER prefers for BOD (unfiltered) to be monitored; therefore, the target has been increased to 30 mg/L. The licence includes conditions on the management of the infiltration area (OSC 1.3.6) to ensure that the area is managed appropriately and thereby prevent impacts. Comprehensive monitoring of the emissions to land is described in OSC 3.5.1. This monitoring enables the calculation of loading based on the quality and quantity of wastewater discharged to the infiltration area. The monitoring of Escherichia coli has been decreased from monthly to quarterly with this amendment to align with the monitoring of other parameters at the site as the treated wastewater is not being irrigated nor directly discharged to a water body (during winter treated wastewater from the infiltration area enters Redman Brook – see Point Source emissions to surface water section for more information); therefore the risk to human health is minimal.</p>	1986



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Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk rating:</i> Moderate</p>	
Fugitive emissions	N/A	N/A	Fugitive emissions have not been reassessed as part of this amendment. As the old format licence did not impose any fugitive emission controls, no specified conditions have been included in this section. SC 1.2.1 applies.	General provisions of the <i>Environmental Protection Act 1986</i>
Odour	N/A	N/A	Odour emissions have not been reassessed as part of this amendment. As the old format licence did not impose any odour emission controls, no specified conditions have been included in this section. SC 1.2.1 applies.	General provisions of the <i>Environmental Protection Act 1986</i>
Noise	N/A	N/A	Noise emissions have not been reassessed as part of this amendment. As the old format licence did not impose any noise emission controls, no specified conditions have been included in this section. The <i>Environmental Protection (Noise) Regulations 1987</i> and SC 1.2.1 apply.	General provisions of the <i>Environmental Protection Act 1986</i>
Monitoring general	L3.1.1 – L3.1.5	OSC	<p>Monitoring requirements have not been reassessed as part of this amendment. As monitoring of emissions to land and surface water are required (see Emissions to Surface Water and Emissions to Land sections above) OSCs 3.1.1 to 3.1.5 are included as general monitoring conditions.</p> <p>Additionally, OSC 3.1.1 has been included to replace conditions W4(a) and W4(b) of the old format licence.</p>	General provisions of the <i>Environmental Protection Act 1986</i>
Monitoring of inputs and outputs	L3.6.1	OSC	Monitoring of inputs and outputs has not been reassessed as part of this amendment. OSC 3.6.1 has been included to monitor the amount of sewage being accepted at the premises. Additionally, the monitoring of treated wastewater discharged from the final treatment pond (via the flume) has been	General provisions of the <i>Environmental Protection Act</i>



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			included in the licence as part of OSC L3.6.1 to replace part of condition W2 of the old format licence.	1986
Process monitoring	N/A	N/A	Monitoring requirements have not been reassessed as part of this amendment. As the old format licence did not include conditions on process monitoring no specified conditions have been included in this section.	N/A
Ambient quality monitoring	L3.8.1	OSC	Monitoring requirements have not been reassessed as part of this amendment. Table 3.8.1, as part of OSC 3.8.1, has been included to replace part of condition W3 of the old format licence (Redman Brook Gauging Station S8000076 and Redman Brook downstream of WWTP S8000075 surface water monitoring). Table 3.8.2, as part of OSC 3.8.1, has been included to replace part of condition W3 of the old format licence (groundwater monitoring of bores 1 – 6).	General provisions of the <i>Environmental Protection Act 1986</i>
Meteorological monitoring	N/A	N/A	Monitoring requirements have not been reassessed as part of this amendment. As the old format licence did not include conditions on meteorological monitoring no specified conditions have been included in this section.	General provisions of the <i>Environmental Protection Act 1986</i>
Improvements	N/A	N/A	No improvement conditions are required in this licence.	N/A
Information	L5.2.1 – 5.2.3 L5.3.1	OSC OSC	SC 5.2.1 – 5.2.3 have been included in this licence to replace conditions G1, G2, part of W2 and part of W5 of the old format licence. OSC 5.3.1 has been included to replace conditions S1(b)(i) and (ii) of the old format licence.	N/A
Licence Duration	N/A	N/A	As this is a medium priority premises it is recommended that this licence be issued for a period of five (5) years; therefore the expiry date of the licence will be extended to October 2019.	N/A



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
25/08/2014	Application advertised in West Australian (or other relevant newspaper)	No comments received	N/A
20/10/2014	Proponent sent a copy of draft instrument	Comments included: <ul style="list-style-type: none">- adding "and tankered waste" to Table 1.3.2;- queried the condition to measure inflow in Table 3.6.1; and- queried the use of forms for reporting.	<ul style="list-style-type: none">- Table 1.3.2 was updated to include the tankered waste;- inflow is required to be measured to ensure the plant does not exceed the approved premises production or design capacity; and- removed the requirement to use specific forms for reporting (except for the AACR and N1 forms).
22/01/2015	Proponent sent a copy of draft instrument	Comments included: <ul style="list-style-type: none">- remove "inlet works (drum screen)" and "grit and screenings" from condition 1.3.4 as this technology is not at the site;- remove target for BOD at W1;- increase target for BOD to 30 mg/L as previous target was 20 mg/L for 5-day filtered BOD;- remove requirement to monitor flow at W1;- update map to include references to L1 and W1; and- decrease Escherichia coli monitoring from monthly to quarterly to align with frequency of other monitoring at the site.	<ul style="list-style-type: none">- Table 1.3.4. was updated to remove references to "inlet works (drum screen)" and "grit and screenings";- Condition 2.3.2 was removed as there is already a target for BOD at L1 (discharge to infiltration area) (condition 2.5.2);- Target for BOD was raised to 30 mg/L at L1 (condition 2.5.2) (see Emissions to Land including Monitoring section for more details);- Requirement to measure flow at W1 was removed as treated wastewater discharge flow is monitored at L1;- Map was updated to include references to L1 and W1; and- Escherichia coli monitoring was decreased (see Emissions to Land including Monitoring section for more details).



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