



LICENCE

Environmental Protection Act 1986

LICENCE NUMBER: L7968/1998/4

FILE NUMBER 2010/006077

LICENSEE AND OCCUPIER OF PREMISES

Water Corporation
629 Newcastle Street
Leederville
WESTERN AUSTRALIA 6902

NAME AND LOCATION OF PREMISES

Donnybrook Waste Water Treatment Plant
Lot 2 on Diagram 50500, Lot 836 on Plan 256165 and Lot 2861 on Plan 81860
Donnybrook WA 6239
(as depicted in Attachment 2)

PRESCRIBED PREMISES CATEGORY

Schedule 1 of the *Environmental Protection Regulations 1987*

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 meters or more per day	620 Cubic meters per day

CONDITIONS OF LICENCE

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

Date signed: 19 October 2015

Ruth Dowd
Senior Manager – Industry Regulation (Waste Industries)
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

ISSUE DATE: Thursday, 15 October 2015

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COMMENCEMENT DATE: Sunday, 1 November 2015

EXPIRY DATE: Monday, 31 October 2016

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DEFINITIONS

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

“AS5667 or Australian Standard 5667” means the most recent version and the relevant parts of the Australian and New Zealand series of guidance standards on Water Quality Sampling;

“AS3780 or Australian Standard 3780” means the most recent version and the relevant parts of the Australian and New Zealand series of guidance standards on *The storage and handling of corrosive substances*;

“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,

"m³/day" and "mg/L" means cubic metres per day and milligrams per litre, respectively; and

“premises” means Lot 2 on Diagram 50500, Lot 836 on Plan 256165 and Lot 2861 on Plan 81860, as depicted in Attachment 2.

GENERAL CONDITIONS

1(a) MONITORING AND REPORTING

The Licensee shall provide to the CEO, by 1 September each year, an Annual Monitoring Report containing data collected over the previous financial year (1 July to 30 June). The report shall contain but not be limited to:

- (i) monitoring data or other collected data required by any condition of this licence;
- (ii) an assessment of the data against any limits set or other environmental guidelines, targets or policies referred to in this licence and data from previous years' monitoring;
- (iii) a summary of any data exceeding those limits, guidelines or policies including information on why the exceedance occurred (if known) and action taken by the Licensee to prevent recurrence of such exceedances;
- (iv) a summary of the number and type of complaints received;
- (v) any changes to site boundaries, location of groundwater monitoring bores, surface drainage channels and on-site or off-site impacts or pollution; and
- (vi) a list of any monitoring methods used to collect and analyse data required by any condition of this licence to demonstrate they comply with the methods specified in this licence.

1(b) The Licensee shall by 1 September in 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

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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.

2 MAINTENANCE OF WASTEWATER TREATMENT PONDS

The Licensee shall manage the wastewater treatment ponds such that:

- (i) uncontaminated stormwater runoff resulting from roof and site drainage shall be prevented from entering the wastewater treatment ponds or causing erosion of outer pond embankments;
- (ii) pond liners are maintained to ensure their design hydraulic conductivity;
- (ii) overtopping of the ponds shall not occur except as a result of an extreme rainfall event (greater than a 1 in 10 year event of 72 hours duration);
- (iii) there is no discernible seepage loss from the treatment ponds;
- (iv) vegetation (emergent or otherwise) and debris shall be routinely removed from pond wastewaters or inner pond embankments; and
- (v) trapped overflows shall be maintained on the discharge from all wastewater treatment ponds to prevent carry-over of surface floating matter to subsequent ponds.

3 FLOW MONITORING DEVICE

The Licensee shall maintain a metering device for measuring monthly cumulative volumes of treated wastewater discharged from the storage dam to irrigation. The monthly flow results shall be presented in the next annual monitoring report in a tabular format in cubic metres per day (m³/day).

4(a) ENVIRONMENTAL MONITORING PROGRAMME

The Licensee shall maintain monitoring bores designated Bore 1, Bore 2, Bore 3, Bore 5, Bore 6 and Bore 7, at the locations depicted in Attachment 2, to allow representative water samples to be collected.

- 4(b)** The Licensee shall, at the frequencies stated, take and have analysed representative surface and ground water samples as depicted in Table 1 from the monitoring sites as depicted in Attachment 2:

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Table 1: Treated wastewater, surface water and groundwater monitoring

Column 1	Column 2	Column 3
Monitoring sites	Frequency	Parameter
Discharge from the storage dam.	Monthly	pH ¹ , Total Dissolved Solids, Total Suspended Solids, 5-Day Biochemical Oxygen Demand Total Nitrogen, Ammonium-nitrogen, Nitrate + Nitrite-nitrogen, Total Phosphorus and <i>E.coli</i> .
<u>Surface water:</u> 1US, 2DS and 3DS.	Monthly, while flowing	pH, Total Dissolved Solids, Total Suspended Solids, 5-Day Biochemical Oxygen Demand ,Total Nitrogen, Ammonium-nitrogen, Nitrate + Nitrite-nitrogen, Total Phosphorus and <i>E.coli</i> .
<u>Groundwater:</u> Bore1, Bore2, Bore3, Bore5, Bore6 and Bore7.	Quarterly	pH, Total Dissolved Solids, Total Nitrogen, Ammonium-nitrogen, Nitrate + Nitrite-nitrogen, Total Phosphorus and Standing Water Level.

Table 1: With the exception of pH and *E.Coli*, all measurements are to be reported in mg/L.

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

5(a) **SAMPLE ANALYSIS**

The Licensee shall ensure that all water samples required by condition 4(b) are collected, handled and preserved in accordance with Australian Standard 5667.

5(b) The Licensee shall ensure that all water samples are analysed in accordance with the current document *Standard Methods for Examination of Water and Wastewater*, APHA-AWWA-WEF.

5(c) The Licensee shall ensure that all water samples are analysed:

- (i) in a laboratory holding NATA accreditation; and
- (ii) by an analyst with NATA accreditation for the parameters specified in column 3 of Table 1.

6 **CALCULATION OF CONTAMINANT LOAD**

The Licensee shall determine the monthly load of each contaminant in the treated wastewater discharged from the storage dam (except pH and *E Coli*) using flow-weighted data. The loads shall be based on the treated wastewater discharge rates and the concentrations as measured in accordance with licence conditions 3 and 4(b). Monthly and annual average loads of the contaminants shall be reported in the annual monitoring report in kilograms per day.

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7(a) POND AND SOLIDS MANAGEMENT

The Licensee shall dispose of collected vegetation and floating debris from the treatment ponds to a licensed landfill.

7(b) The Licensee shall:

- (i) inform the CEO prior to taking a treatment pond offline for maintenance works;
- (ii) inform the CEO no less than 14 days prior to the removal of sewage sludge from a treatment pond except for routine removal from pond 1 to sludge drying beds through the sludge scour pipework; and
- (iii) where sewage sludge is temporarily stored on-site, direct sewage sludge to a hard-stand area or approved 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.

7(c) The Licensee shall dispose of sludge and biosolids in accordance with the document *Western Australian Guidelines for Biosolids Management*, Department of Environment and Conservation, December 2012.

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ATTACHMENT 1 – ANNUAL AUDIT COMPLIANCE REPORT

SECTION A

LICENCE DETAILS

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

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of 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 initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL: _____

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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 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	
i) Action taken or that will be taken to prevent recurrence of the non compliance	

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

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:	
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 Corporations Act 2001; 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.

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SIGNATURE: _____

SIGNATURE: _____

NAME: (printed) _____

NAME: (printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)

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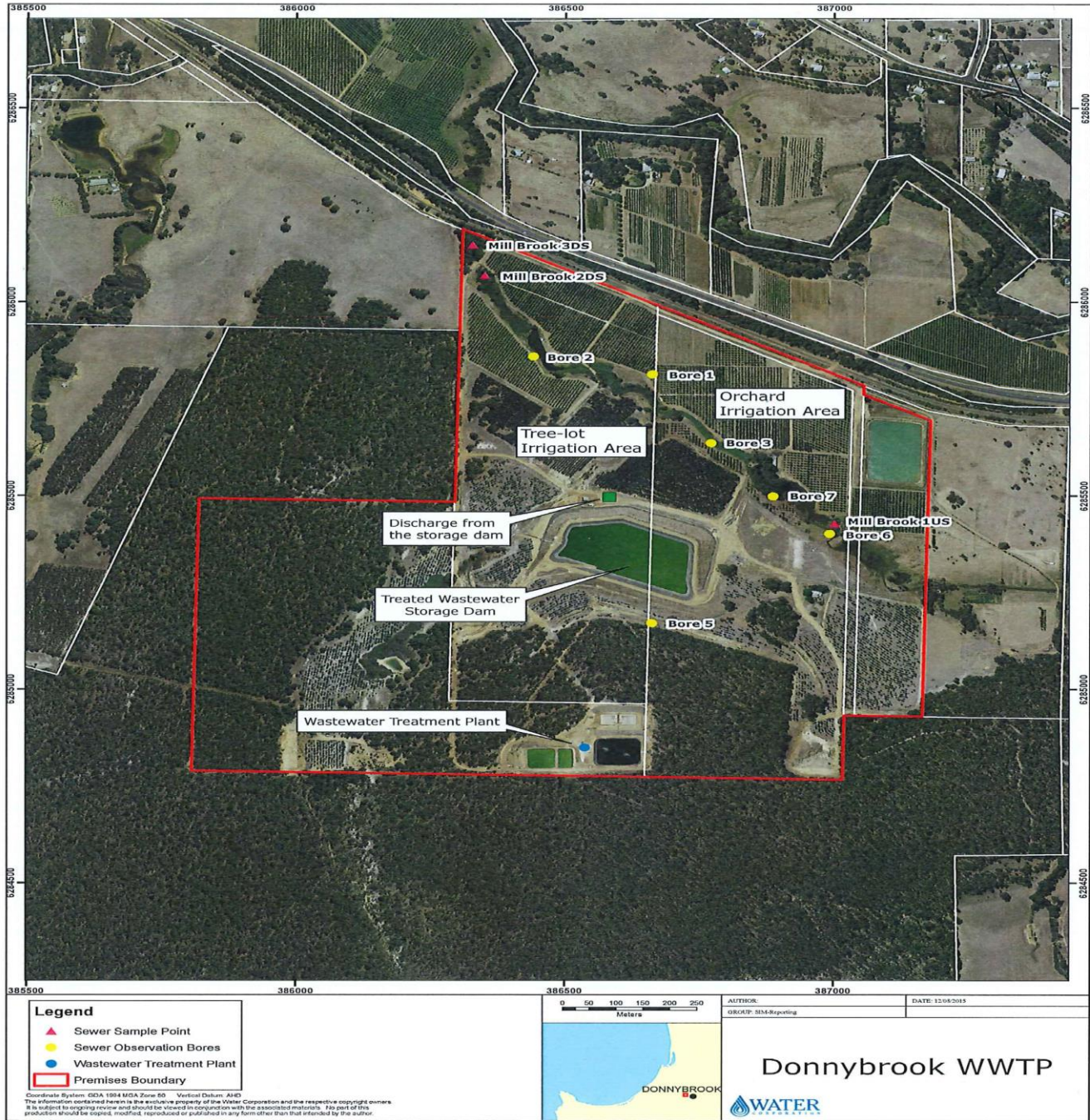
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ATTACHMENT 2 – The red line depicts the premises boundary



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Decision Document

Environmental Protection Act 1986, Part V

Proponent: Water Corporation

Licence: L7968/1998/4

Registered office: 629 Newcastle Street
LEEDERVILLE WA 6007

Premises address: Donnybrook Wastewater Treatment Plant
DONNYBROOK WA 6239
Being Lot 2 on Diagram 50500, Lot 836 on Plan 256 and Lot 2861 on Plan 81860 as depicted in Schedule 1

Issue date: Thursday, 15 October 2015

Commencement date: Sunday, 1 November 2015

Expiry date: Monday, 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 and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Dr Bhabesh Das
Senior Licensing Officer

Decision Document authorised by: Caron Goodbourn
A/Manager Licensing



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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 checked="" type="checkbox"/>
	Licence amendment <input type="checkbox"/>	Works Approval amendment <input type="checkbox"/>
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	54	620 m ³ /day
Application verified	Date: 3/08/2015	
Application fee paid	Date: 10/08/2015	
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"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/>	No <input checked="" 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>)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>



3 Executive summary of proposal and assessment

The Donnybrook Wastewater Treatment Plant (WWTP) is located approximately 3 km east of Donnybrook and about 1km south of South Western Highway. The plant was established in 1998. The WWTP is surrounded by Crown land (recreation Reserve). There are no direct neighbours to the plant. The closest resident to the plant is approximately 600 m north east of the plant.

The vegetation mapped in the area is generally Jarrah-Marri forest and woodland. The site is surrounded by native vegetation but itself is cleared. Connected to the site is also a planted treelot of *Eucalyptus globulus* (Tasmanian blue gums). The site is underlain by the Blackwood Superficial, then the Leederville and the Yarragadee aquifer in turn. The groundwater is usually 1-2m below the surface.

The plant was established in 1998 through W2559 to install phosphorus reduction facilities to ensure that the phosphorus loading to the 15Ha irrigation area does not exceed 30kg/ha/yr and that the nitrogen application rates do not exceed 150kg/ha/yr. The plant was designed to achieve:

- BOD(filtered) of less than 20mg/L
- Thermotolerant Coliforms of less than 1000 to irrigate

In 2007 W4306 was issued to increase the capacity of the plant to 620 m³/day which included the construction of a new advanced facultative primary pond, two new sludge drying beds and a new 220ML treated effluent storage dam.

All ponds were constructed with compacted clay liners designed to achieve a hydraulic conductivity of 10⁻⁹ metres per second or less.

The average daily inflow to the plant for the 2013/2014 reporting period was 251 m³/day.

The activities at the Donnybrook WWTP include the treatment of sewage to a tertiary standard. Treated wastewater is piped to a 220 ML effluent storage dam and then irrigated onto the onsite treelot and the sub-surface irrigation of a fruit orchard within the premises boundary. All water exiting the effluent storage dam is filtered and chlorinated prior to irrigation.

The plant infrastructure consists of:

- sludge drying beds
- one primary treatment pond, one secondary treatment pond and one tertiary treatment pond. All ponds are in series; and
- one effluent storage dam of capacity 220 ML.

The Donnybrook Wastewater Treatment Plant (WWTP) licence will be re-issued for a period of one year. The licence will be re-issued into a new licence format after this period. As part of this re-issue DER has not re-assessed the acceptability or impacts of emissions and discharges from the Premises or re-visited any existing emission control levels. The changes to the licence include standard administrative changes and the amendment to the condition 8(b)(ii) as per P4 application submitted by the Licensee on 29 May 2015. A partial decision document has been completed for the re-issue of this licence.



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		one metre head of water. The other ponds approved through W103/98/0 were also designed to meet this standard.	



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
17/08/2015	Application advertised in West Australian (or other relevant newspaper)	No submissions have been received	Not applicable
25/092015 and 16/10/2015	Proponent sent a copy of draft instrument	<p>Comments received on 07/10/2015 as follows:</p> <ul style="list-style-type: none"> Condition 3 – include the storage dam Condition 4(b)Table 1 – change the frequency from quarterly to monthly in the first row, column 2. <p>change TDS calculated from electrical conductivity to TDS by evaporation.</p> <p>include Standing Water Level in the parameter requirements in Table 1</p>	<p>Comments have been considered and amended the conditions accordingly. Amendments are as follows:</p> <ul style="list-style-type: none"> Condition 3 –included storage dam and removed treatment plant because discharge occurs from the storage dam for irrigation. Condition 4(b), Table 1 – Amended frequency in the first row column 2 with the requirement of monthly monitoring as requested. Amended the requirement of TDS monitoring accordingly as monitoring by evaporation method is more accurate. <p>Added Standing Water Level as requested</p> <p>Included foot Note 1 in Table 1 for pH monitoring. Thermo tolerant coliforms are replaced with <i>E.Coli</i> in the foot note of Table 1.</p> <ul style="list-style-type: none"> Condition 6 –amended to replace final pond with storage dam, and thermo tolerant coliform with E .Coli



Date	Event	Comments received/Notes	How comments were taken into consideration
		<ul style="list-style-type: none">remove bunding conditions 7 (a), 7(b) and (c) as they serve no purpose to the current treatment plant process at Donnybrook WWTP.	<ul style="list-style-type: none">Bunding and containment conditions for dangerous goods are removed as requested. Considered as per CEO instructions.Previous condition 8(c) now 7 (c) has been updated with the reference of current biosolids guideline.



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