



Government of Western Australia  
Department of Environment Regulation

Your ref: L6271/1991/10  
Our ref: 2011/009901  
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Gordon Groth  
Manager Operations  
Water Corporation  
PO Box 100  
LEEDERVILLE WA 6902

Dear Gordon

**ENVIRONMENTAL PROTECTION ACT 1986 - AMENDMENT TO LICENCE L6271/1991/10**

**Premises name:** Fitzroy Crossing Wastewater Treatment Plant  
**Licence location:** Crown Reserve 40827, Lot 36 on Plan 188144  
**Premises suburb:** Fitzroy Crossing WA 6765

Further to my letter dated 11 December 2014, please find enclosed your amended *Environmental Protection Act 1986* Licence.

If you have any questions or objections relating to the licence, please do not hesitate to contact the enquiries officer above on 9168 4218 for clarification or discussion of any grievances you have.

If you are concerned about, or object to any aspect of the amendment, you may lodge an appeal with the Minister for the Environment within 21 days from the date on which this licence is received. The Office of the Appeals Convenor can be contacted on 6467 5190 to find out the procedure and fee.

Members of the public may also appeal the amendments. The Appeals Registrar at the Office of the Appeals Convenor can be contacted after the closing date of appeals to check whether any appeals were received.

If you have any questions please contact Damian Thomas on 9168 4218.

Yours sincerely,

Stephen Checker  
Officer delegated under Section 20  
of the *Environmental Protection Act 1986*

19 March 2015



# Licence

## *Environmental Protection Act 1986, Part V*

**Licensee:** Water Corporation

**Licence:** L6271/1991/10

**Registered office:** 629 Newcastle Street  
LEEDERVILLE WA 6007

**Premises address:** Fitzroy Crossing Wastewater Treatment Plant  
Crown Reserve 40827  
FITZROY CROSSING WA 6765  
Being Lot 36 on Plan 188144 as depicted in Schedule 1.

**Issue date:** Thursday, 31 October 2013

**Commencement date:** Friday, 1 November 2013

**Expiry date:** Wednesday, 31 October 2018

**Prescribed premises category**  
Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
54	Sewage facility premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	100 cubic metres or more per day	700 cubic metres per day

### Conditions

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

Officer delegated under section 20  
of the *Environmental Protection Act 1986*



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## Introduction

This Introduction is not part of the Licence conditions.

### DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

### Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the Licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link: <http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your Licence. Non-compliance with your Licence is an offence and strict penalties exist for those who do not comply.



Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Other Guidelines which you should be aware of include:

- *Western Australian Guidelines for Biosolids Management*, Department of Environment and Conservation, December 2012 (as amended from time to time).

#### **Licence fees**

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

#### **Ministerial conditions**

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

#### **Premises description and Licence summary**

The Fitzroy Crossing Wastewater Treatment Plant (WWTP) is an existing sewage facility currently operated by Water Corporation (WC) under DER licence L6271/1991/10. The WWTP has a design capacity of 700 cubic metres per day ( $\text{m}^3/\text{day}$ ) and receives approximately 400  $\text{m}^3/\text{day}$  of reticulated sewage from the town of Fitzroy Crossing.

The Fitzroy Crossing WWTP is located approximately 2.5km south-west of the town of Fitzroy Crossing on Reserve 40827, Great Northern Highway. The WWTP is also located approximately 300m south of the Fitzroy River, a sensitive receptor with important ecological and heritage values.

The treatment system is a facultative pond type system consisting of a primary (facultative), secondary (maturation) and tertiary (maturation) pond and one 18 mega litre (ML) storage and infiltration pond.

WC has recently finished construction of a second 18ML storage / infiltration pond to increase the effectiveness of the treatment and infiltration system and enable the plant to achieve its licensed production design capacity of 700 $\text{m}^3/\text{day}$ . The second infiltration pond was assessed and approved under works approval W5315/2012/1. As such a licence amendment is being processed to allow the operation of the new infiltration pond. DER has taken the opportunity to convert the licence to the new REFIRE format at this time and revise the risk assessment of operating the WWTP with increased discharges (via infiltration) of treated wastewater.

Additional conditions have been incorporated as a result of the revised assessment. Quarterly sampling and analysis of 10 groundwater bores onsite will be required to monitor the quality of the groundwater and allow ongoing assessment of the potential impacts to the surrounding environment from increased infiltration of treated wastewater. Target values will be set for Total Nitrogen and Total Phosphorus levels in groundwater around the WWTP, to trigger a management response should these parameters become elevated. WC will also be required to report the water quality and discharge information to DER as part of annual environmental reporting requirements.

The main potential emissions from the site are discharges of treated wastewater via infiltration to land (and potentially to groundwater) and odour emissions.

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

The licences and works approvals issued for the Premises since 08/10/2000 are:



Instrument log		
Instrument	Issued	Description
L6271/1991/3	08/10/2000	New licence application
L6271/1991/4	08/10/2001	Licence re-issue
L6271/1991/5	08/10/2002	Licence re-issue
L6271/1991/6	08/10/2003	Licence re-issue
L6271/1991/7	08/10/2004	Licence re-issue
L6271/1991/8	01/11/2006	Licence re-issue
L6271/1991/9	01/11/2008	Licence re-issue
L6271/1991/10	01/11/2013	Licence re-issue
W5315/2012/1	17/03/2014	Works approval to allow construction of second 18ML evaporation / infiltration pond
L6271/1991/10	19/03/2015	Licence amendment to REFIRE format and inclusion of additional evaporation / infiltration pond

### Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

### END OF INTRODUCTION



## Licence conditions

### 1 General

#### 1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

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

‘**Act**’ means the *Environmental Protection Act 1986*;

‘**AHD**’ means the Australian height datum;

‘**annual period**’ means the inclusive period from 1 July until 30 June in the following year;

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

‘**AS/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*;

‘**AS/NZS 5667.11**’ means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters*;

‘**averaging period**’ means the time over which a limit or target is measured or a monitoring result is obtained;

‘**BGL**’ means below ground level;

‘**CEMS**’ means continuous emissions monitoring system;

‘**CEO**’ means Chief Executive Officer of the Department of Environment Regulation;

‘**CEO**’ for the purpose of correspondence means:

Manager Licensing (Waste North)  
Department of Environment Regulation  
Locked Bag 33 Cloisters Square  
PERTH WA 6850  
Telephone: (08) 9333 7510  
Facsimile: (08) 9333 7550  
Email: industry.regulation@der.wa.gov.au;

‘**code of practice for the storage and handling of dangerous goods**’ means document titled “Storage and handling of dangerous goods: Code of Practice” published by the Department of Mines and Petroleum, as amended from time to time;

‘**controlled waste**’ has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

‘**dangerous goods**’ has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;



**'environmentally hazardous material'** means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

**'extreme rainfall event'** means a one in ten year rainfall event of 72 hours duration;

**'freeboard'** means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.

**'fugitive emissions'** means all emissions not arising from point sources identified in Sections 2.2, 2.3, 2.4 and 2.5;

**'Geobag'** means a geotextile dewatering bag that allows solids to dewater over time while containing the solid component;

**'in-situ soils'** means soils that are in place and have not been moved from their original place of deposition;

**'leachate'** means liquid released by or water that has percolated through waste and which contains some of its constituents;

**'Licence'** means this Licence numbered L6271/1991/10 and issued under the Act;

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

**'mass balance'** means the calculation resource flows and losses based on the mass and/or volume of inputs to a process which balances the mass and/or volume of outputs as products, emissions and wastes, plus any change in stocks;

**'NATA'** means the National Association of Testing Authorities, Australia;

**'NATA accredited'** means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

**'mass balance'** means the calculation resource flows and losses based on the mass and/or volume of inputs to a process which balances the mass and/or volume of outputs as products, emissions and wastes, plus any change in stocks;

**'Premises'** means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

**'process equipment'** means any wastewater or sludge containment infrastructure or wastewater treatment vessel;

**'quarterly'** means the 4 inclusive periods from 1 July to 30 September, 1 October to 31 December, and in the following year 1 January to 31 March and 1 April to 30 June;

**'Schedule 1'** means Schedule 1 of this Licence unless otherwise stated;

**'Schedule 2'** means Schedule 2 of this Licence unless otherwise stated; and

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

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.



- 1.1.4 Any reference to a guideline or code of practice in the Licence means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guidelines or code of practice made during the term of this Licence.

## 1.2 General conditions

- 1.2.1 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.
- 1.2.2 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
- 1.2.3 The Licensee, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous substances are stored in accordance with the code of practice for the storage and handling of dangerous goods.
- 1.2.4 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 1.2.5 The Licensee shall:
- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
  - (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.<sup>1</sup>

Note1: The *Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

## 1.3 Premises operation

- 1.3.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit, and/or target in this section.
- 1.3.2 The Licensee shall only allow waste to be accepted on to the Premises if:
- (a) it is of a type listed in Table 1.3.1;
  - (b) the quantity accepted is below any limit listed in Table 1.3.1; and
  - (c) it meets any specification listed in Table 1.3.1

**Table 1.3.1: Waste acceptance**

Waste	Quantity Limit	Specification <sup>1</sup>
Sewage – waste from the reticulated sewerage system	None specified	Accepted through sewer inflow(s) only

Note 1: Additional requirements for the acceptance of controlled waste are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

- 1.3.3 The Licensee shall ensure that the wastes accepted onto the Premises are only subjected to the process(es) set out in Table 1.3.2 and in accordance with any process requirements described in that table.



**Table 1.3.2: Waste processing**

Waste type	Process	Process requirements
Sewage	Physical, biological and chemical treatment	Treatment of sewage waste shall be targeted at or below the treatment capacity of 700 m <sup>3</sup> /day.
Sewage sludge	Storage and disposal	<ul style="list-style-type: none"><li>- Removal and disposal of sludge and biosolids in accordance with the document Western Australian guidelines for biosolids management (December 2012 or updated version), or to a licensed facility for final disposal.</li><li>- Sludge leachate to be disposed of via evaporation or collected and returned to wastewater treatment ponds.</li></ul>

1.3.4 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.3.

**Table 1.3.3: Containment infrastructure**

Vessel or compound	Material	Requirements
Pond 1 (facultative pond)	Wastewater	Clay lined to achieve a permeability of less than 10 <sup>-9</sup> m/s or equivalent
Pond 2 (maturation pond)	Wastewater	Lined with compacted in-situ soils
Pond 3 (maturation pond)	Wastewater	Lined with compacted in-situ soils
Evaporation/infiltration ponds	Treated wastewater	Unlined
Sewage sludge compound	Sewage sludge	Temporary or permanent infrastructure to consisting of a bunded hardstand or lined area (lined to achieve a permeability of less than 10 <sup>-9</sup> m/s or equivalent), capable of preventing surface run-off of leachate and sludge and which includes a leachate collection system

1.3.5 The Licensee shall manage all wastewater treatment ponds such that:

- overtopping of the ponds does not occur, except as a result of an extreme rainfall event;
- a freeboard equal to, or greater than, 300mm is targeted;
- the integrity of the containment infrastructure is maintained;
- trapped overflows are maintained on the outlet of ponds to prevent carry-over of surface floating matter;
- vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments (with the exception of duckweed (Lemna)) on wastewater treatment and infiltration ponds; and
- visual monitoring of duckweed coverage in conjunction with annual treatment efficiency monitoring is undertaken to ensure duckweed is not inhibiting the treatment efficiency of the plant.

1.3.6 The Licensee shall manage the infiltration of treated wastewater such that sludges are removed from the base of the infiltration ponds to maintain the infiltration performance.



## 2 Emissions

### 2.1 General

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

#### 2.2-2.4 Point source emissions to air, surface water and groundwater

There are no specified conditions relating to point source emissions to air, surface water or groundwater in this section.

### 2.5 Emissions to land

- 2.5.1 The Licensee shall ensure that where waste is emitted to land from the emission points in Table 2.5.1 and identified on the map of emission points in Schedule 1, it is done so in accordance with the conditions of this Licence.

**Table 2.5.1: Emissions to land**

Emission point reference [and location on Map of emission points]	Emission point reference on Map of emission points	Description	Source including abatement
L1	Infiltration Pond 1	Infiltration of treated wastewater	Treated wastewater flow from the Tertiary pond
L2	Infiltration Pond 2	Infiltration of treated wastewater	Treated wastewater flow from the Tertiary pond
L3	Infiltration Pond 1 Spillway	Treated wastewater discharged to the environment	Treated wastewater flow from the Infiltration Pond 1 and 2

### 2.6 Fugitive emissions

There are no specified conditions relating to fugitive emissions in this section.

### 2.7 Odour

- 2.7.1 The Licensee shall ensure that odour emitted from the Premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the Premises.

### 2.8 Noise

There are no specified conditions relating to noise in this section.



## 3 Monitoring

### 3.1 General monitoring

#### 3.1.1 The licensee shall ensure that:

- (a) all wastewater sampling is conducted in accordance with AS/NZS 5667.10[unless indicated otherwise in the relevant table];
- (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11[unless indicated otherwise in the relevant table];
- (c) all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
- (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured [unless indicated otherwise in the relevant table].

#### 3.1.2 The Licensee shall ensure that quarterly monitoring is undertaken at least 45 days apart.

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

#### 3.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

### 3.2-3.4 Monitoring of point source emissions to air, surface water and groundwater

There are no specified conditions relating to monitoring of point source emissions to air, surface water or groundwater in this section.



### 3.5 Monitoring of emissions to land

3.5.1 The Licensee shall undertake the monitoring in Table 3.5.1 according to the specifications in that table.

Table 3.5.1: Monitoring of emissions to land					
Emission point reference	Monitoring point reference	Parameter	Units	Averaging Period	Frequency
M1	Final effluent sample point	pH <sup>1</sup>	pH units	Spot Sample	Quarterly
		Biochemical Oxygen Demand	mg/L		
		Total Dissolved Solids			
		Total Suspended Solids			
		Nitrate + Nitrite-nitrogen			
		Ammonium-nitrogen			
		Total Nitrogen			
		Total Phosphorus			
		<i>Escherichia coli</i> <sup>2</sup>			
L1 and L2	By mass balance calculation of overflow from Tertiary Pond 3 to Infiltration Ponds 1 and 2	Hydraulic loading	m <sup>3</sup> /ha/d	Monthly	Monthly
		Load of Total Nitrogen	kg/ha/d	Annual	Quarterly
		Load of Total Phosphorus			
L3	Infiltration Pond 1 Spillway overflow into the environment	pH <sup>1</sup>	-	Spot sample	Within 24 hours of overflow and every 14 days thereafter until overflow ceases
		Biochemical Oxygen Demand	mg/L		
		Total Dissolved Solids			
		Total Suspended Solids			
		Total Nitrogen			
		Total Phosphorus			
		<i>Escherichia coli</i> <sup>2</sup>	cfu/100 mL		
		Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Daily	Daily when overflowing

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

Note 2: Actual units above 1 cfu/100mL are to be reported except where the result is greater than the highest detectable level of 24,000 cfu/100mL. In this case the reporting of the highest detectable level is permitted.



### 3.6 Monitoring of inputs and outputs

3.6.1 The Licensee shall undertake the monitoring in Table 3.6.1 according to the specifications in that table.

Table 3.6.1: Monitoring of inputs and outputs					
Input/Output	Monitoring point reference [and location]	Parameter	Units	Averaging period	Frequency
Sewage Inflows	Mass balance calculation	Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Monthly	Continuous
Treated wastewater discharged to on-site infiltration ponds	By mass balance calculation of overflow from Tertiary Pond 3 to Infiltration Ponds 1 and 2- M1	Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Monthly	Quarterly



### 3.7 Process monitoring

There are no specified conditions relating to process monitoring in this section.

### 3.8 Ambient environmental quality monitoring

3.8.1 The Licensee shall undertake the monitoring in Table 3.8.1 according to the specifications in that table and record and investigate results that do not meet any target specified.

Monitoring point reference and location	Parameter	Target	Units	Averaging period	Frequency
1/10, 2/10, 3/10, 4/10, 5/10, 6/10 7/10, 8/10, 9/10 and 10/10.	Standing water level	-	m(AHD) and mBGL	Spot sample	Quarterly
	pH <sup>1</sup>	-	pH units		
	Biochemical Oxygen Demand	-	mg/L		
	Total Dissolved Solids	-			
	Total Suspended Solids	-			
	Nitrate + Nitrite-nitrogen	-			
	Ammonium-nitrogen	-			
	Biochemical Oxygen Demand	-			
	Total Nitrogen	-			
	Total Phosphorus	-			
	<i>Escherichia coli</i> <sup>2</sup>	-			
1/10, 2/10, 7/10, 8/10, 9/10 and 10/10.	Nitrate + Ammonium N	5 mg/L	mg/L	Spot sample	Quarterly
	Total Phosphorus	1 mg/L			

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

Note 2: Actual units above 1 cfu/100mL are to be reported except where the result is greater than the highest detectable level of 24,000 cfu/100mL. In this case the reporting of the highest detectable level is permitted.

### 3.9 Meteorological monitoring

There are no specified conditions relating to meteorological monitoring in this section.

## 4 Improvements

There are no specified improvement conditions in this section.



## 5 Information

### 5.1 Records

5.1.1 All information and records required by the Licence shall:

- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 5.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
  - (i) off-site environmental effects; or
  - (ii) matters which affect the condition of the land or waters.

5.1.2 The Licensee shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

5.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

5.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.



## 5.2 Reporting

- 5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 1 September each year. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form <sup>1</sup>
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken.	None specified
Table 1.3.2	Summary of any treatment capacity target exceedances and any action taken.	None specified
1.3.5	Summary of any freeboard target exceedances and any action taken.	None specified
1.3.5	Summary of visual monitoring program for duckweed coverage, and relationship to annual treatment efficiency.	None specified
Table 3.5.1	Monitoring of emissions to land.	None specified
	Contaminant loading (kg/day and kg/ha/day – monthly average and total annual loading kg/yr and kg/ha/yr) to land of parameters monitored in Table 3.5.1 (except pH and <i>E.coli</i> ).	None specified
Table 3.6.1	Monitoring of inputs and outputs.	None specified
	Methodology and calculations used to estimate the daily volumetric flow rate of treated wastewater pumped to evaporation basins and results of those calculations.	None specified
Table 3.8.1	Monitoring of ambient groundwater quality.	None specified
	Summary of any ambient groundwater quality target exceedances and any action taken.	None specified
5.1.3	Compliance	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

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



5.2.3 The Licensee shall submit the information in Table 5.2.2 to the CEO at the Contact Address according to the specifications in that table.

**Table 5.2.2: Non-annual reporting requirements**

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form <sup>1</sup>
Table 3.8.1	Target exceedances	Quarterly	28 calendar days	ET1
Table 3.5.1	Biochemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, Total Nitrogen, Total Phosphorus and <i>Escherichia coli</i>	Within 24 hours of the overflow and every 14 days thereafter until the flow ceases	Within 21 days after overflow sample events	None specified
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties

Note 1: Forms are in Schedule 2

### 5.3 Notification

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

**Table 5.3.1: Notification requirements**

Condition or table (if relevant)	Parameter	Notification requirement <sup>1</sup>	Format or form <sup>2</sup>
-	Taking process equipment offline for maintenance works that may result in increased odour emissions	No less than 72 hours in advance of works	None specified
-	Removal of sewage sludge from a treatment pond, sewage sludge storage pond or Geobag	No less than 14 days in advance of works <sup>3</sup>	
1.3.1 and 2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next working day Part B: As soon as practicable	None specified
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution		
3.1.4	Calibration report	As soon as practicable.	None specified
Table 2.5.1	Overflow from Infiltration Pond 1 into the environment	As soon as practicable after the overflow	None specified

Note 1: No notification requirement in the Licence shall negate the requirement to comply with s72 of the Act.

Note 2: Forms are in Schedule 2

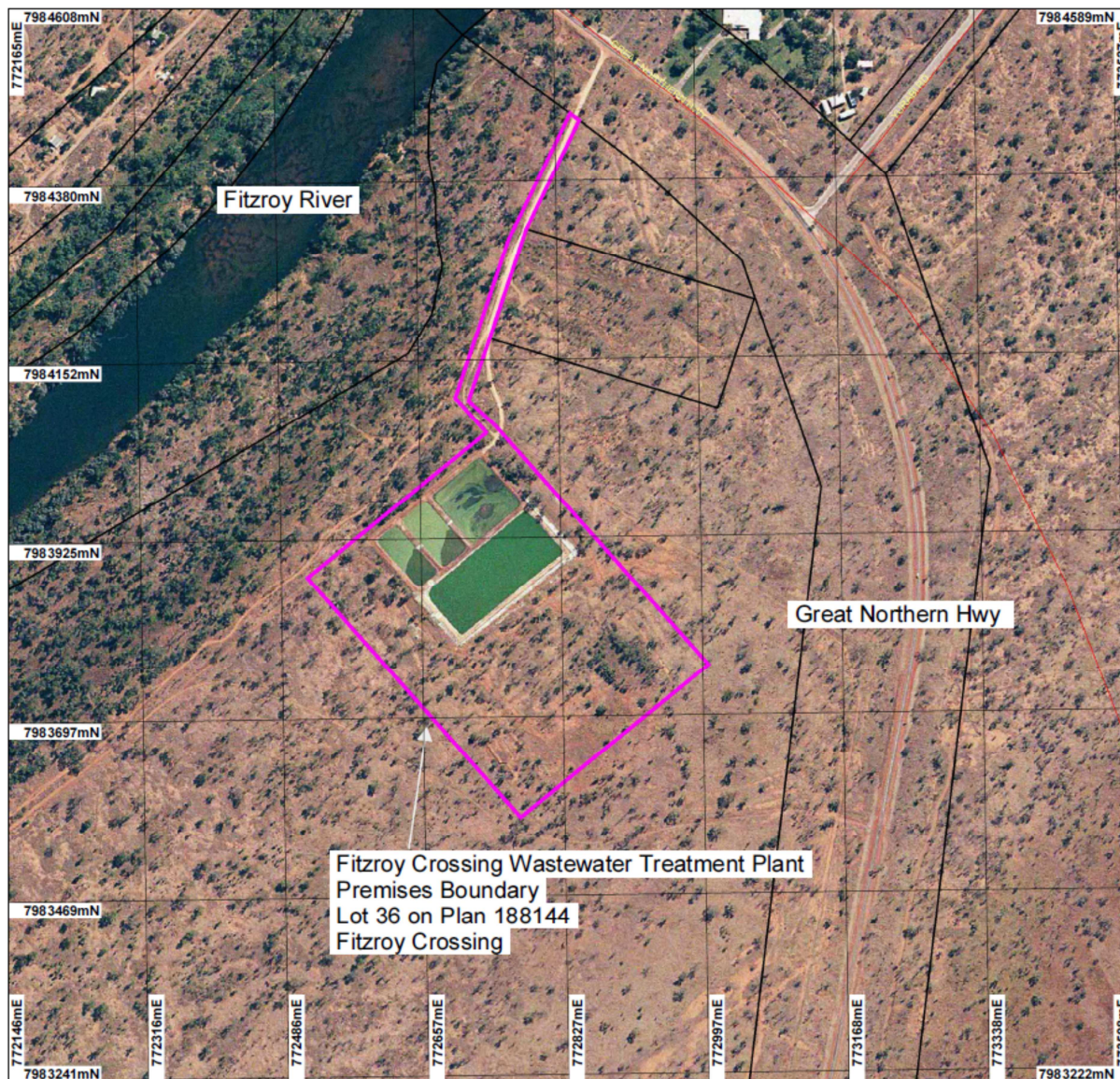
Note 3: The following information shall be included: (i) when desludging is proposed to occur, (ii) the desludging method, (iii) action to mitigate potential odour impacts, and (iv) the method by which the community will be advised of the desludging activities.



## Schedule 1: Maps

### Premises map

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





## Map of emission points and monitoring locations

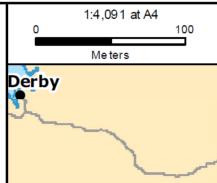
The locations of the emission points defined in Tables 2.5.1, 3.5.1 and 3.6.1 and the monitoring points defined in Table 3.8.1 are shown below.



File: S:\AA\Environment Branch\Environment\Approvals\Works Approvals & Licences\Fitzroy Crossing\Graphics and Drawings\Compliance\Licence Attachment.mxd

### LEGEND

- Newly installed Infrastructure
  - Prescribed Premises Boundary
  - Fitzroy Crossing WWTP Monitoring Bores
- Coordinate System: GCS GDA 1994 Vertical Datum: AHD



AUTHOR: ROGOVSP0	DATE: 27/1/2014
GROUP: EAAB	

**WATER**  
CORPORATION

**Fitzroy Crossing WWTP**



## Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

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### ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

#### 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 the Licence complied with within the reporting period? (please tick the appropriate box)

Yes ☐ Please proceed to Section C

No ☐ Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



## SECTION B

### DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

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

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

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

Initial:



## SECTION C

### SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) must only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

POSITION: \_\_\_\_\_

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

SEAL (if signing under seal)

SIGNATURE: \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

POSITION: \_\_\_\_\_

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_



Licence: L6271/1991/10  
Form: ET1  
Name: Target exceedances

Licensee: Water Corporation  
Period:

**Form ET1: Target exceedances**

Please provide an analysis of the target exceedances for the month, including but not limited to:

- (a) the emission point
- (b) the root cause analysis for the exceedances;
- (c) any common or contributory factors including but not limited to fuel, mass emissions, gas flow rates, inlet & exit temperature, abatement status;
- (d) a description of remedial measures taken or planned to be taken, including those taken to prevent recurrence of the exceedances;
- (e) complaints received that may have been caused by this exceedance; and
- (f) for those exceedances that may have caused complaints, meteorological details: temperature, wind speed and wind direction, humidity.

Signed on behalf of Water Corporation: .....

Date: .....



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:**     **Water Corporation**

**Licence:**        **L6271/1991/10**

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**Registered office:**     629 Newcastle Street  
LEEDERVILLE WA 6007

**Premises address:**     Fitzroy Crossing Wastewater Treatment Plant  
Crown Reserve 40827  
FITZROY CROSSING WA 6765  
Being Lot 36 on Plan 188144 as depicted in Schedule 1.

**Issue date:**             Thursday, 31 October 2013

**Commencement date:** Friday, 1 November 2013

**Expiry date:**            Wednesday, 31 October 2018

### **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 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:                     Carmen Standing  
Licensing Officer

Decision Document authorised by:                   Steve Checker  
Manager Licensing



## Contents

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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	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	54	700 cubic metres per day
Application verified	Date: 02/10/2013	
Application fee paid	Date: 04/10/2013	
Works Approval has been complied with	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Compliance Certificate received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted 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"/> If Yes include details of which EPP(s) here.		
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 <sub>2</sub> requirements of Kwinana EPP.		



### 3 Executive summary of proposal and assessment

The Fitzroy Crossing Wastewater Treatment Plant (WWTP) is an existing sewage facility currently operated by Water Corporation (WC) under DER licence L6271/1991/10. The WWTP has a design capacity of 700 cubic metres per day ( $\text{m}^3/\text{day}$ ) and receives approximately 400  $\text{m}^3/\text{day}$  of reticulated sewage from the town of Fitzroy Crossing.

The Fitzroy Crossing WWTP is located approximately 2.5km south-west of the town of Fitzroy Crossing on Reserve 40827, Great Northern Highway. The WWTP is also located approximately 300m south of the Fitzroy River, a sensitive receptor with important ecological and heritage values.

The treatment system is a facultative pond type system consisting of a primary (facultative), secondary (maturation) and tertiary (maturation) pond and one 18 mega litre (ML) storage and infiltration pond.

WC has recently finished construction of a second 18ML storage / infiltration pond to increase the effectiveness of the treatment and infiltration system and enable the plant to achieve its licensed production design capacity of 700 $\text{m}^3/\text{day}$ . The second infiltration pond was assessed and approved under works approval W5315/2012/1. As such, a licence amendment is being processed to allow the operation of the new infiltration pond. DER has taken the opportunity to convert the licence to the new REFIRE format at this time and revise the risk assessment of operating the WWTP with increased discharges (via infiltration) of treated wastewater.

Additional conditions have been incorporated as a result of the revised assessment. Quarterly sampling and analysis of 10 groundwater bores onsite will be required to monitor the quality of the groundwater and allow ongoing assessment of the potential impacts to the surrounding environment from increased infiltration of treated wastewater. Target values will be set for Total Nitrogen and Total Phosphorus levels in groundwater around the WWTP, to trigger a management response should these parameters become elevated. WC will also be required to report the water quality and discharge information to DER as part of annual environmental reporting requirements.

The main emissions from the site are discharges of treated wastewater via infiltration to land (and potentially to groundwater) and odour emissions. These emissions are further discussed in the Decision table and Appendix A below.



## 4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DER's Policy Statement - Limits and targets for prescribed premises (2006), 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	L1.2.3 and L1.2.5	OSC	<u>Regulatory Controls</u> OSC 1.2.5 has been added to the licence requiring the operator to prevent stormwater run-off from becoming contaminated by the activities on the Premises and stormwater that has become contaminated from the Premises.	General provisions of <i>Environmental Protection Act 1986</i>  Application supporting documentation  <i>Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007</i>
Premises operation	L1.3.1 – 1.3.6	OSC	<u>Regulatory Controls</u> OSCs 1.3.1 - 1.3.3 have been included in the Licence to ensure the type and volumes of waste accepted and processed at the WWTP is consistent with those assessed for the site.  OSC 1.3.3 requires the management of solid waste and replaces conditions 11 and 12 on the previous licence.	General provisions of <i>Environmental Protection Act 1986</i>  Application supporting



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
			<p>OSCs 1.3.4 – 1.3.6 have been included in the Licence requiring appropriate management and maintenance of the WWTP, including specifications for containment infrastructure and target freeboard conditions. These conditions replace conditions 4, 14,15 and 16 on the previous licence.</p> <p>OSC 1.3.5 requires management of vegetation and floating debris (emergent or otherwise) to prevent vegetation growing pond surfaces or inner pond embankments. An exception to this has been provided for duckweed (Lemna); its presence has been shown to have minimal effects on wastewater treatment efficiency, including Biochemical Oxygen Demand, Suspended Solids and nutrient removal processes and evaporative processes, on ponds in the North West Region. OSC 1.3.5(f) requires visual monitoring of duckweed coverage in conjunction with annual treatment efficiency monitoring to be undertaken to ensure duckweed is not inhibiting the treatment efficiency of the plant.</p>	documentation
Emissions general	L2.1.1	OSC	Descriptive limits will be set through condition 2.7.1 of the licence and therefore OSC regarding recording and investigation of exceedances of limits or targets has been included.	
Point source emissions to air including monitoring	L2.2	N/A	There are no point source emissions to air as a result of operation of the Fitzroy Crossing WWTP.	
Point source emissions to surface water including monitoring	L2.3	N/A	There are no anticipated point source emissions to surface water as a result of operation of the Fitzroy Crossing WWTP.	



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
Point source emissions to groundwater including monitoring	L2.4	N/A	There are no anticipated point source emissions to groundwater as a result of operation of the Fitzroy Crossing WWTP.	
Emissions to land including monitoring	L1.3.5 L3.5.1	OSC	<p><b>Operation</b> See Appendix A for the risk assessment on discharges to land.</p> <p>Recording of outflows of treated wastewater discharged to the infiltration ponds is required to calculate nutrient loading associated with infiltration of treated wastewater under condition 3.5.1.</p>	<p>General provisions of <i>Environmental Protection Act 1986</i></p> <p>Application supporting documentation</p>
Fugitive emissions	L2.6	N/A	There is no dust or other fugitive emissions associated with the operation of the Fitzroy Crossing WWTP. No conditions are required to be added to the licence to manage fugitive emissions.	N/A
Odour	L2.7.1 L5.2.1	OSC	<p><b>Operation</b> <u>Emission Description</u> <i>Emission:</i> There is potential for odour emissions to be generated during operation of the WWTP from the processing of wastewater and from the solid wastes and sludge produced during maintenance and de-sludging activities. <i>Impact:</i> The nearest sensitive odour receptors are located approximately 600m to the north-west and north-east of the WWTP and have the potential to be impacted by offensive odours. No odour complaints were received by DER or</p>	<p>General provisions of <i>Environmental Protection Act 1986</i></p> <p>Application supporting</p>



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
			<p>Water Corporation during the 2013/14 annual period.</p> <p><i>Controls:</i> Regular (quarterly) monitoring of the quality of treated effluent will ensure the treatment process is occurring effectively, and will alert WC should there be any unacceptable odour emissions.</p> <p><u>Risk Assessment</u>  <i>Consequence:</i> Moderate  <i>Likelihood:</i> Unlikely  <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u>            OSC 2.7.1 has been added to require Water Corporation to take the necessary precautions to limit offensive odour emissions on site. Standard condition 5.2.1 requires Water Corporation to submit a complaints summary for each annual period.</p> <p><u>Residual Risk</u>  <i>Consequence:</i> Moderate  <i>Likelihood:</i> Unlikely  <i>Risk Rating:</i> Moderate</p>	documentation
Noise	L2.8		There is no noise-generating equipment at the Fitzroy Crossing WWTP. No specified conditions are required to be added to the licence to manage noise emissions.	<i>Environmental Protection (Noise) Regulations 2004</i>
Monitoring general	L3.1.1	OSC	OSC 3.1.1 has been included in the Licence requiring that wastewater samples are collected in accordance with the applicable standard and submitted to a NATA accredited laboratory for analysis. This condition replaces conditions 8 and 9 on the previous version of the licence. OSCs 3.1.2 to 3.1.4 specify monitoring timeframes and calibration requirements for monitoring equipment.	



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
Monitoring of inputs and outputs	L3.6.1	OSC	OSC3.6.1 has been added to the licence to require monitoring of WWTP inflows to ensure these are consistent with the design capacity of the WWTP. This condition replaces condition 5 on the previous licence.	
Process monitoring	L3.7	N/A	There are no specified conditions relating to process monitoring.	
Ambient quality monitoring	L3.8.1	OSC	<b>Operation</b> Quarterly sampling and analysis of the ten groundwater bores onsite will be required under OSC 3.8.1 to monitor the quality of the groundwater and allow ongoing assessment of the potential impacts to the surrounding environment from increased infiltration of treated wastewater. Noting the important ecological and heritage values of the river, groundwater monitoring target trigger values of 5mg/L for Nitrate + Ammonium N and 1mg/L for Total Phosphorus have been recommended for monitoring bores down-gradient of the WWTP. These trigger values were discussed and recommended as part of the supporting documents for the proposal to construct the additional infiltration pond. Exceedance of trigger values will require further investigation and reporting of the likely impacts to the surrounding environment as a result of elevated nutrients in groundwater around the WWTP.	General provisions of <i>Environmental Protection Act 1986</i>  Application supporting documentation
Meteorological monitoring	L3.9	N/A	There are no specified conditions relating to meteorological monitoring.	
Improvements	L4	N/A	There are no Improvement conditions required to be added to the Licence.	
Information	L5.1 – L5.3	OSC	Standard information (records and reporting) conditions have been applied to the Licence that replace reporting conditions 1, 2, 3, 10 and 13 of the previous Licence.	



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
Licence Duration	N/A	N/A	The premises has been assessed as presenting a low – moderate risk and as such the licence has been issued for a period of five years (expires 31 October 2018).	



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
4/12/2014	Proponent sent a copy of draft instrument	Proponent provided comments	Slight changes to conditions after negotiation with the proponent.



## 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



## Appendix A

### Emissions to land

#### Emission Description

*Emission:* Infiltration of treated wastewater high in nutrients (nitrogen and phosphorus) and pathogens.

*Impact:* Potential contamination of surrounding soils and groundwater from high concentrations of nutrients and / or pathogens. Groundwater flows in a north-westerly direction, towards the Fitzroy River, a sensitive receptor with important ecological and heritage values, located only 300m from the WWTP.

*Controls:* Discharges of treated wastewater to land are managed by treating wastewater to a defined water quality level and undertaking regular compliance monitoring.

WC will monitor the quality of treated effluent discharged to the infiltration pond. This will inform WC and DER if the discharges from the WWTP are acceptable and in line with modelling performed to assess the risk of operations from infiltration of treated wastewater.

In addition, a series of 10 nested groundwater bores have been installed to monitor ambient groundwater quality around the WWTP.

#### Risk Assessment

*Consequence:* Moderate

*Likelihood:* Possible

*Risk Rating:* Moderate

#### Regulatory Controls

OSC 2.5.1 provides authorised discharge points for all discharges to land. OSC 3.5.1 requires analysis of the quality of treated effluent from the final treatment pond. In addition, OSC 3.5.1 requires monthly recording of (mass calculated) volumes infiltrated (kL) as well as contaminant loadings of discharges to the infiltration ponds (kg/day). This condition replaces condition 7 on the previous version of the licence. If treated wastewater overflows into the environment during extreme rainfall events the proponent is required to monitor this overflow under condition 3.5.1. Recording of outflows of treated wastewater discharged to the infiltration ponds is required to calculate nutrient loading associated with infiltration of treated wastewater under condition 3.5.1.

#### Residual Risk

*Consequence:* Moderate

*Likelihood:* Possible

*Risk Rating:* Moderate