



Mr Gordon Groth  
Environmental Operations Manager  
Water Corporation  
PO Box 100  
LEEDERVILLE WA 6902

Dear Mr Groth

***ENVIRONMENTAL PROTECTION ACT 1986: LICENCE GRANTED***

**Premises:** Home Island Wastewater Treatment Plant  
Part 103, Home Island, Cocos (Keeling) Islands, Indian Ocean Territories, WA, 6799.  
**Licence Number:** L8335/2009/4

A licence under the *Environmental Protection Act 1986 (WA) (CKI)* (the Act) has been granted for the above premises. The Department of Environment Regulation will advertise the issuing of this licence in the public notices section of *The West Australian* newspaper.

The licence includes attached conditions. Under section 58(1) of the Act, it is an offence to contravene a condition of a licence. This offence carries a penalty of up to \$125,000 and a daily penalty of up to \$25,000.

In accordance with section 102(1)(c) of the Act, you have 21 days to appeal the conditions of the licence. Under section 102(3)(a) of the Act, any other person may also appeal the conditions of the licence. To lodge an appeal please direct all correspondence to:

The Hon Jamie Briggs MP  
Assistant Minister for Infrastructure and Regional Development  
c/o Territories Office  
M1 26 Parliament House  
Canberra ACT 2600

If you have any queries regarding the above information, please contact Caroline Conway-Physick on (08) 9964 0901.

Yours sincerely

Steve Checker  
Officer delegated under section 20  
of the *Environmental Protection Act 1986 (WA)(CKI)*

5 February 2015



# Licence

## *Environmental Protection Act 1986 (WA)(CKI), Part V*

**Licensee:** Water Corporation

**Licence:** L8335/2009/4

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

**Premises address:** Home Island Wastewater Treatment Plant  
Part 103, Home Island  
Cocos (Keeling) Islands  
INDIAN OCEAN TERRITORIES WA 6799  
Being part of Lot 1106 on Plan 30520 as depicted in Schedule 1.

**Issue date:** Thursday, 5 February 2015

**Commencement date:** Tuesday, 24 February 2015

**Expiry date:** Sunday, 23 February 2020

**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	165 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 (WA)(CKI)*



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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 (WA)(CKI)* (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).

If you are concerned about, or object to any aspect of the Licence, you may lodge an appeal within 21 days from the date on which this licence is received. To lodge an appeal please direct all correspondence to:

The Hon Jamie Briggs MP  
Assistant Minister for Infrastructure and Regional Development  
M1 26 Parliament House  
Canberra ACT 2600

### **Licence fees**

If you have a licence that is issued for more than one year, you may be 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 Cocos (Keeling) Islands are a group of 27 coral islands located in the Indian Ocean. They are situated approximately 3,000 km north-west of Perth 3,700 km west of Darwin and 900 km south-west of Christmas Island. Home Island Wastewater Treatment Plant (WWTP) is located on Part 103, part of Lot 1106 on Plan 30520, Home Island, Cocos (Keeling) Islands.

The WWTP design capacity was originally assessed at 165 cubic meters per day, peak wet weather (hydraulic) flow.

Wastewater is treated to secondary standard via an Intermittently Decanted Extended Aeration (IDEA) process. Treated wastewater is decanted from the aeration tank to the balance tank before being disinfected by Ultra Violet (UV) radiation. Treated wastewater is discharged to the Indian Ocean via the outfall pipeline approximately 300m off shore and at a depth of 15m. Sludge management is by manual wasting into covered drying beds. Dried sludge is then transferred to the Shire transfer station on Home Island (L8684/2012/1). Random, manual chlorination (tablets) treatment is undertaken for the control of algal growth within the balance tank.

Ocean disposal of treated wastewater is the primary disposal option due to the location of the treatment plant adjacent to the Indian Ocean. The sensitivity and vulnerability of the groundwater, exclude wastewater reuse as a disposal method option on the Island.

The groundwater resource on Home Island consists of a series of freshwater lenses, directly recharged via rainfall infiltration. Home Island has two small lenses approximately 1-2m below ground level. The main fresh water lens and the drinking water supply, is located to the south of the Island. A brackish water lens is located to the North within the vicinity of the plant. Two galleries draw water from the Northern Lens, with salinity reduced by Reverse Osmosis and then treated by UV disinfection. Manual chlorination (tablets) of the balance tank is undertaken for the control of algal growth, periodically.

Land use surrounding the WWTP is predominately industrial. Adjacent to the WWTP is the Shire landfill and the Powerhouse. The landfill and other industrial uses may contribute to nutrient levels in the groundwater or ocean within the vicinity of the WWTP.

The main emissions from the Premises are discharge of treated effluent via ocean outfall and odour. The Licence contains conditions to address both of these issues.

The Licence is being reissued in REFIRE format and is recommended for a period of five years.



The licences and works approvals issued for the Premises since 24/02/2012 are:

Instrument log		
Instrument	Issued	Description
L8335/2009/3	24/02/2012	Licence re-issue
L8335/2009/4	05/02/2015	Licence reissue and amendment to REFIRE format

#### 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 (WA)(CKI)* 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 (WA)(CKI)*;

‘**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 5667.9**’ means the Australian Standard AS/NZS 5667.9 *Water Quality – Sampling – Guidance on sampling from marine waters*;

‘**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;

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

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

Manager Licensing (Midwest and Indian Ocean Territories)  
Department of Environment Regulation  
PO Box 72  
GERALDTON WA 6531  
Telephone: (08) 9964 0901  
Facsimile: (08) 9921 5713  
Email: midwest@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*;

‘**deep photo quadrats**’ means photo quadrats HXD3 and HXD4;

‘**deep sampling points**’ means sampling points HXD1 to HXD4 inclusive and HDC1 (used to monitor coral lifeform coverage), and transects TX1, TX2, TX3, TC4, TC5, TC6 (used to monitor lifeform coverage);



**'emergency'** means an unforeseen occurrence;

**'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;

**'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 2.3;

**'hardstand'** means a surface with a permeability of  $10^{-9}$  metres/second or less;

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

**'Licence'** means this Licence numbered L8335/2009/4 and issued under the Act;

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

**'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 of 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;

**'shallow sampling points'** means sampling points H1 to H12 inclusive (used to monitor coral and algae lifeform presence) and HCS1, HCS5, HCS10, HX1, HX3, HXS10 (for ocean water quality monitoring at the shore);

**'six monthly'** means the 2 inclusive periods from 1 July to 31 December and 1 January to 30 June in the following year;

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

**'Water Corporation, Cocos (Keeling) Islands ocean Outfall Monitoring September 2002'** means HGM (2002) Water Corporation, Cocos (Keeling) Islands Ocean Outfall Monitoring September 2002. Halpern Glick Maunsell Pty Ltd, Document number EW026922;



**‘Waste Code’** means the Waste Code assigned to a type of controlled waste for purposes of waste tracking and reporting as specified in the Department of Environment Regulation “Controlled Waste Category List” (July 2014), as amended from time to time; and

**‘wastewater treatment vessels’** means any vessel or tank containment infrastructure associated with the treatment of wastewater.

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 shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

**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; and
- (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	Waste Code	Quantity Limit	Specification <sup>1</sup>
<b>Putrescible and Organic wastes</b>			
Sewage	K130	165 m <sup>3</sup> /day	<ul style="list-style-type: none"> <li>• Accepted through sewer inflow(s); and</li> <li>• Tankered acceptance during emergency or maintenance work only.</li> </ul>

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	<ul style="list-style-type: none"> <li>- pH of wastewater to be targeted at 6.5 to 8.5; and</li> <li>- Treatment of sewage waste shall be targeted at or below the treatment capacity of 165 m<sup>3</sup>/day.</li> </ul>
Sewage sludge	Storage and disposal	<ul style="list-style-type: none"> <li>- 54 m<sup>3</sup> at any one time;</li> <li>- Wasted from intermittent aeration tank to dry bed;</li> <li>- Waste activated sludge leachate returned to the aeration tank inlet; and</li> <li>- Removal of sludge to a licenced landfill for final disposal.</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
Inlet works (Macerator)	Grit and Screenings	N/A
Aeration tank	Wastewater	Above ground, impermeable concrete tank.
Balance tank	Wastewater	Effluent is to be decanted from the balance tank, disinfected by UV treatment and discharged to the Ocean via the ocean outlet point; and Constructed above ground, impermeable concrete tank.
Sludge treatment tanks	Sewage sludge	Impermeable receptacle or storage chamber.
Sewage sludge compound	Sewage sludge	Sludge is to be stored on temporary or permanent infrastructure to consist 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.
Washdown bay	Sewage sludge, wastewater	Concrete bay with leachate and waste returning to the inlet of the aeration tank.

1.3.5 The Licensee shall manage the wastewater treatment vessels such that:

- (a) overtopping of the vessels does not occur;
- (b) stormwater runoff is prevented from entering the vessels;
- (c) there is no discernible seepage loss from the vessels;
- (d) maintain the facilities such that all treated effluent is discharged to the discharge point of the ocean outfall; and
- (e) vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the vessels.

1.3.6 The Licensee shall:

- (a) implement security measures at the site to prevent as far as is practical unauthorised access to the site;
- (b) undertake regular inspections of all security measures and repair damage as soon as practicable; and
- (c) ensure the entrance gates are closed and locked when the site is closed or unmanned.

1.3.7 The Licensee shall ensure that any monitoring bores used for sampling are maintained and operational at all times.



## 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 Point source emissions to air

There are no specified conditions relating to point source emissions to air in this section.

### 2.3 Point source emissions to surface water

2.3.1 The Licensee shall ensure that where waste is emitted to surface water from the emission points in Table 2.3.1, and identified on the map of emission points in Schedule 1, it is done so in accordance with the conditions of this Licence.

**Table 2.3.1: Emission points to surface water**

Emission point reference and location on Map of emission points	Emission point reference on Map of emission points	Description	Source including abatement
W1	Treated wastewater discharge point	Discharge of treated wastewater to ocean via ocean outfall pipeline.	Wastewater which has gone through UV treatment process prior to discharge.

2.3.2 The Licensee shall target point source emissions to surface water at or below the levels specified in Table 2.3.2.

**Table 2.3.2: Point source emission targets to surface water**

Emission point reference	Parameter	Target (including units)	Averaging period
M2	Total Suspended Solids	≤20 mg/L	Spot sample
	pH <sup>1</sup>	6.5-8.5	
	Oil and grease	≤20 mg/L	
	Total Nitrogen	≤10 mg/L	
	Total Phosphorus	≤10 mg/L	
	Biochemical Oxygen Demand	≤15 mg/L	
	Residual chlorine <sup>1</sup>	≤0.5 mg/L	
<i>Escherichia coli</i> <sup>2</sup>	≤200 cfu/100mL		

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

Note 2: The actual level is 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.

### 2.4 Point source emissions to groundwater

There are no specified conditions relating to point source emissions to groundwater in this section.

### 2.5 Emissions to land

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

### 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 water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
- (c) all surface water sampling is conducted in accordance with AS/NZS 5667.9;
- (d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
- (e) all microbiological samples are collected and preserved in accordance with AS/NZS 2031;  
and
- (f) 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 :

- (a) monthly monitoring is undertaken at least 15 days apart;
- (b) quarterly monitoring is undertaken at least 45 days apart;
- (c) six monthly monitoring is undertaken at least 3 months apart; and
- (d) annual monitoring is undertaken at least 9 months 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 Monitoring of point source emissions to air**

There are no specified conditions relating to monitoring of point source emissions to air in this section.

### **3.3 Monitoring of point source emissions to surface water**

3.3.1 The Licensee shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.



**Table 3.3.1: Monitoring of point source emissions to surface water**

Emission point reference	Monitoring point reference	Parameter	Units	Averaging Period	Frequency	
M2	IDEA plant discharge point (prior to outfall)	pH <sup>1</sup>	pH	Spot sample	Monthly	
		Total Nitrogen	mg/L			
		Total Phosphorus	mg/L			
		<i>E. coli</i> <sup>2</sup>	cfu/100ml			
		Ammonia-nitrogen	mg/L			
		Total dissolved solids				
		5-Day Biochemical Oxygen Demand				
		Total Suspended Solids				
		Ammonium-nitrogen				
		Nitrate+nitrite-nitrogen				
		Oil and grease				
		Residual chlorine <sup>1</sup>				
		Lead				mg/L & kg/day
		Cadmium				
		Copper				
Zinc						
Mercury						
				Spot sample	Annual	

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

Note 2: The actual level is 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.

### 3.4 Monitoring of point source emissions to groundwater

There are no specified conditions relating to monitoring of point source emissions to groundwater in this section.

### 3.5 Monitoring of emissions to land

There are no specified conditions relating to monitoring of emissions to land in this section.

### 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	Parameter	Units	Averaging period	Frequency
Sewage - Inlet Flow	Inflow meter (M1)	Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Continuous	Monthly
Treated wastewater discharged to ocean outfall pipeline	Outflow meter (M2)	Volumetric flow rate (cumulative)	m <sup>3</sup> /day	Continuous	Monthly





### 3.7 Process monitoring

3.7.1 The Licensee shall undertake the monitoring in Table 3.7.1 according to the specifications in that table.

Table 3.7.1: Process monitoring						
Monitoring point reference and location	Process description	Parameter	Units	Averaging period	Frequency	Method
Outfall pipeline (W1)	Visual inspection of the entire length of the outfall pipeline.	N/A	N/A	Within two hours of dosing with non-toxic tracer dye	Six monthly	None specified
Shallow sampling points	Sampling along shoreline adjacent to and SW of ocean outfall point.	<i>E. coli</i> <sup>1</sup>	cfu/100ml	Within 2 hours of effluent being discharged from the balance tank to ocean outfall	Quarterly	'Water Corporation, Cocos (Keeling) Islands Ocean Outfall Monitoring September 2002'
		Ammonia-nitrogen	mg/L			
		Total Nitrogen				
		Total Phosphorus				
Deep photo quadrats	Marine benthos photographic surveys.	Drop-off immediately above marine outfall	N/A	Spot sample	Every 24 months	
Shallow & deep sampling points	Conduct surveys relating to impact of wastewater discharge into marine ecosystems.	N/A	N/A	Spot sample	Every 24 months	

Note 1: The actual level is 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.

### 3.8 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.

Table 3.8.1: Monitoring of ambient groundwater quality				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
HI-4E	Standing water level	m(AHD) mBGL	Spot sample	Every two months
	pH <sup>1</sup>	pH		
	<i>E. coli</i> <sup>2</sup>	cfu/100ml		
	Total Phosphorus	mg/L		
	Total Nitrogen			
	Biological Oxygen Demand (5-day)			

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

Note 2: The actual level is 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 conditions relating to improvements 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 within 63 calendar days after the end of the annual period. 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 and analysis of any design capacity target exceedances and any action taken.	None specified
1.3.5	Summary of any vessel overtopping and any action taken.	None specified
3.1.1	Confirmation of methodology used	None specified
Table 3.3.1	Monitoring of point source emissions to surface waters	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 marine outfall and results of those calculations.	None specified
Table 3.7.1	Process monitoring and methodology used	None specified
Table 3.8.1	Monitoring of ambient groundwater quality	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 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 2.3.2 Table 3.3.1	Target exceedances	Six monthly	28 calendar days	ET1
-	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.

<b>Table 5.3.1: Notification requirements</b>			
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Notification requirement<sup>1</sup></b>	<b>Format or form<sup>2</sup></b>
-	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, wastewater treatment vessel, sewage sludge storage pond or Geobag	No less than 14 days in advance of works <sup>3</sup>	
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part A: As soon as practicable but no later than 5pm of the next working day Part B: As soon as practicable	N1

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 maps below. The blue line depicts the Premises boundary.

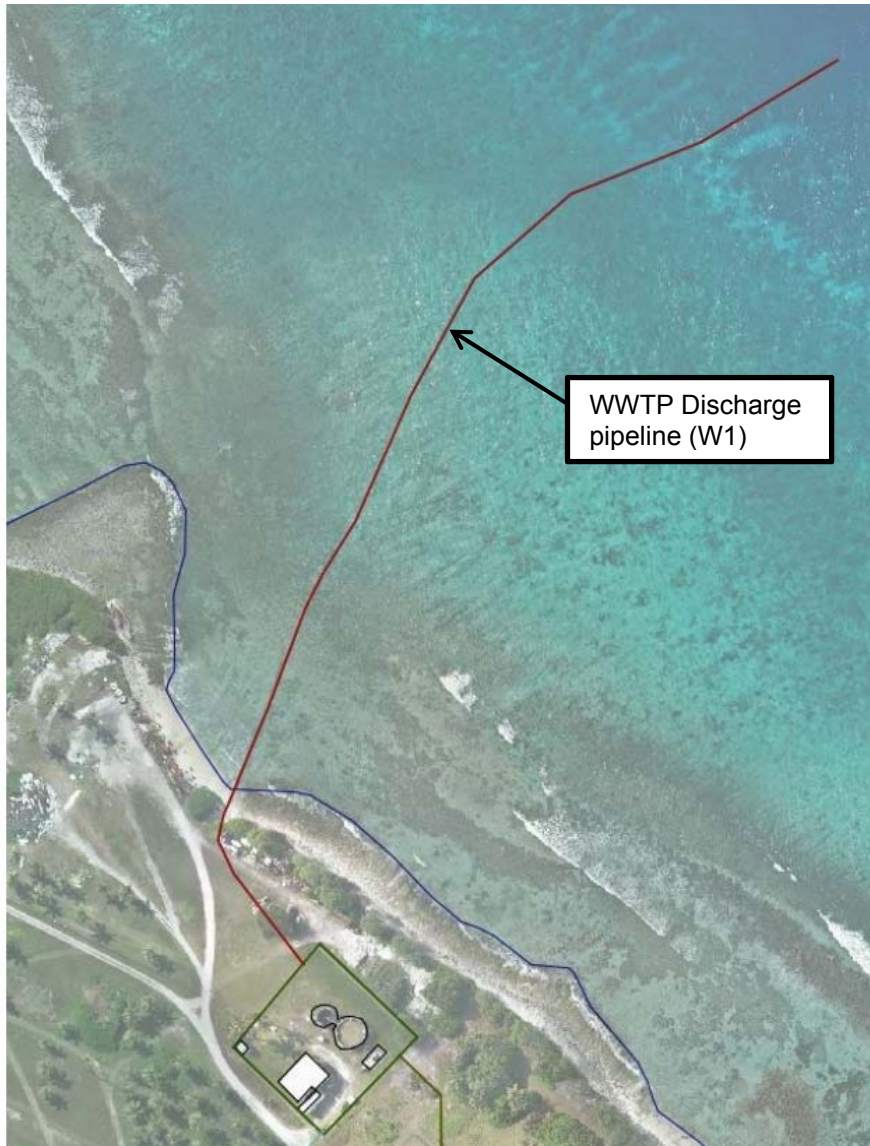






**Map of emission points**

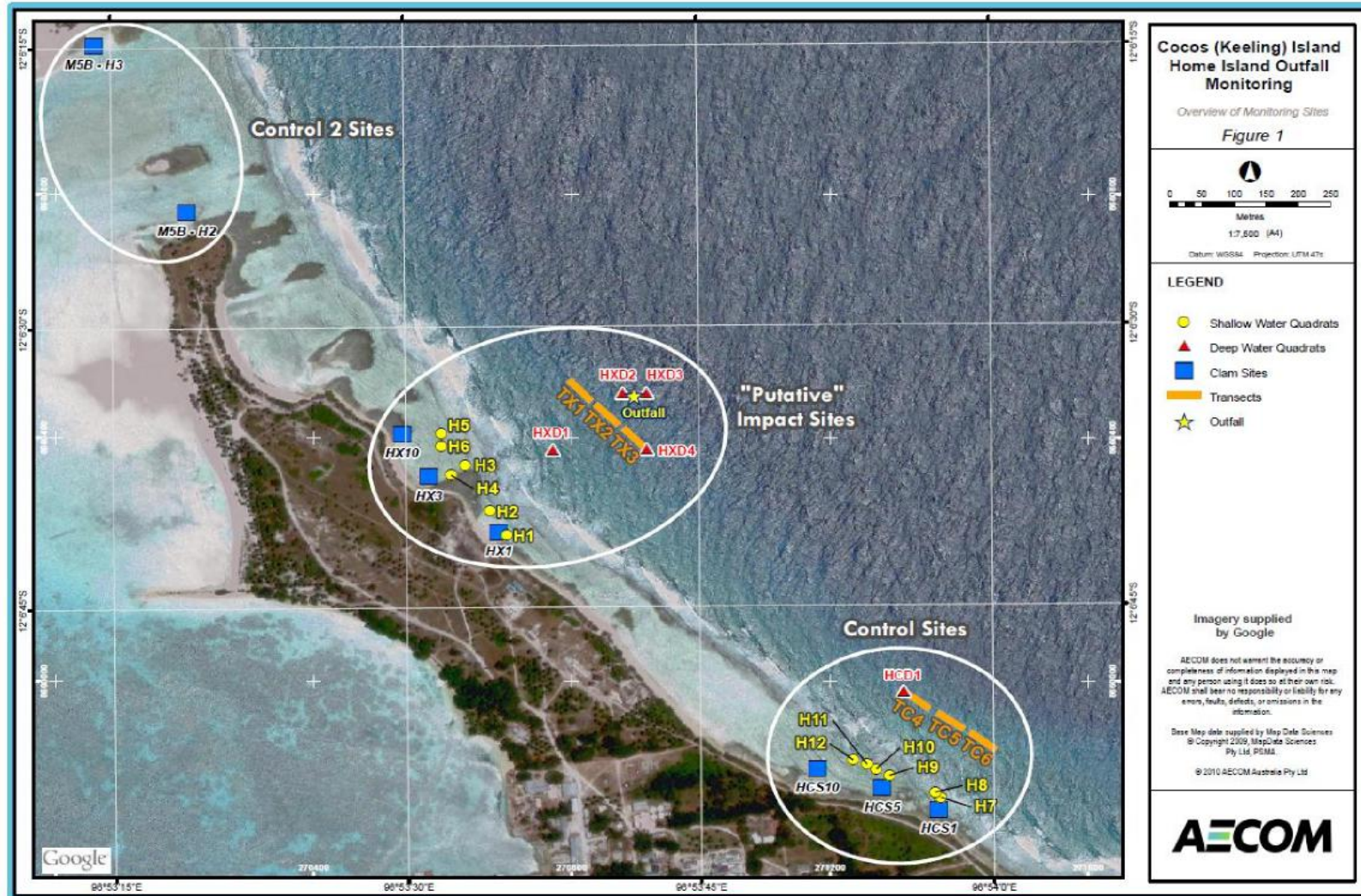
The locations of the emission points defined in Tables 2.2.1, 2.3.1, 2.4.1 and 2.5.1 are shown below.





### Map of monitoring locations

The locations of the monitoring points defined in Tables 3.7.1 and 3.8.1 are shown below.

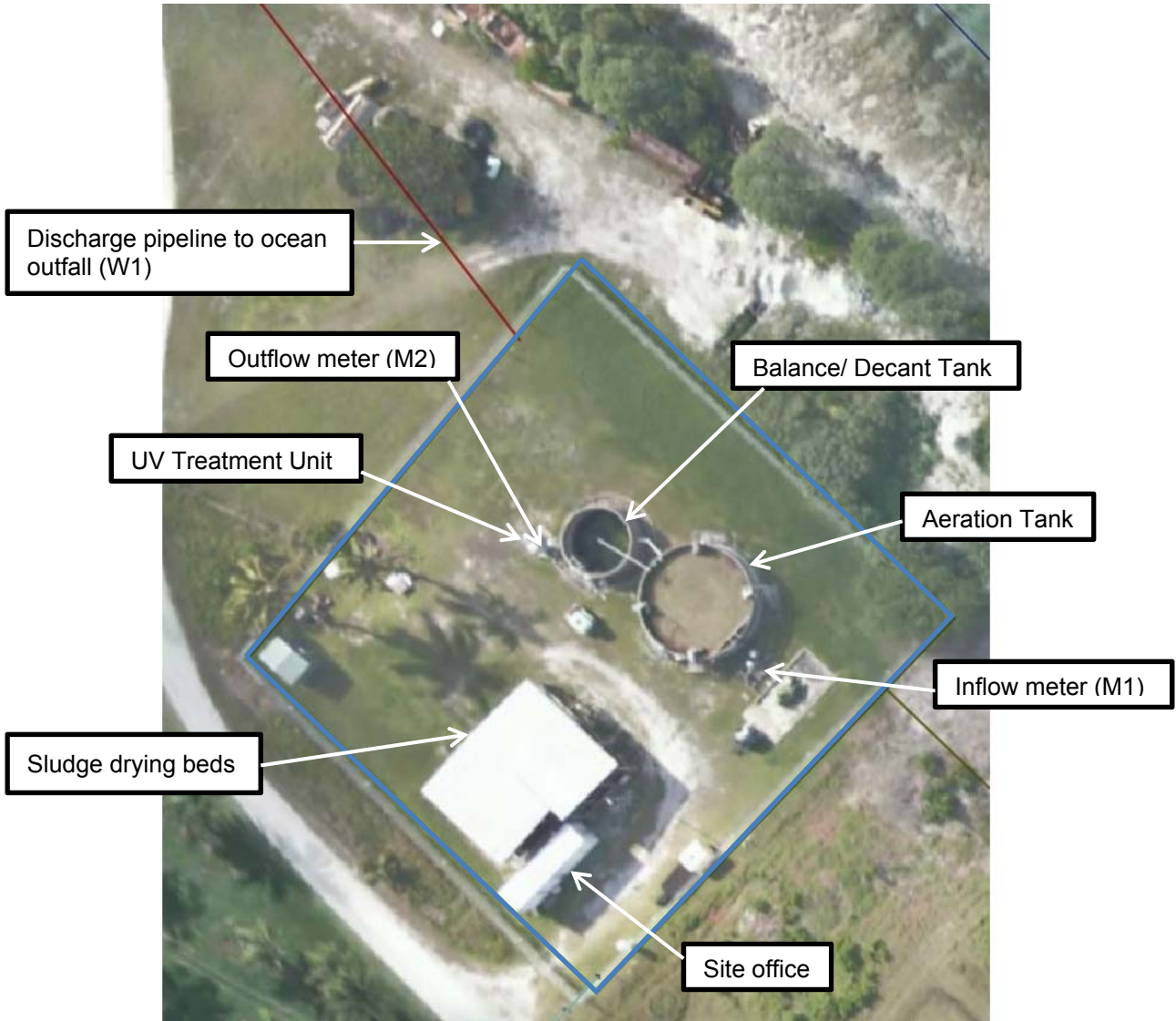


File Modified: 17/05/2010





Premises map – monitoring points





## 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.

### 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 C

### SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may 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: \_\_\_\_\_

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

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

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

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

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

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

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

SEAL (if signing under seal)



Licence: L8335/2009/4  
Form: ET1  
Name: Target exceedances

Licensee: Water Corporation  
Period:

**Form ET1: Target exceedances**

Please provide an analysis of the target exceedances for the six month period, 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: .....



Licence: L8335/2009/4  
Form: N1

Licensee: Water Corporation  
Date of breach:

**Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.**

These pages outline the information that the operator must provide.  
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

**Part A**

Licence Number	
Name of operator	Water Corporation
Location of Premises	
Time and date of the detection	

<b>Notification requirements for the breach of a limit</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

<b>Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution</b>	
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken , or intended to be taken, to stop any emission	
Description of the failure or accident	



## Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Water Corporation	
Date	



# Decision Document

## *Environmental Protection Act 1986 (WA)(CKI), Part V*

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**Proponent:** Water Corporation

**Licence:** L8335/2009/4

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

**Premises address:** Home Island Wastewater Treatment Plant  
Part 103, Home Island  
Coco (Keeling) Islands  
INDIAN OCEAN TERRITORIES WA 6799  
Being Lot 1106 on Plan 30520.

**Issue date:** Thursday, 5 February 2015

**Commencement date:** Tuesday, 24 February 2015

**Expiry date:** Sunday, 23 February 2020

### Decision

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

Decision Document prepared by: Caroline Conway-Physick  
Licensing Officer

Decision Document authorised by: Steve Checker  
Manager Licensing





## Contents

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1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
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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 (WA)(CKI)*. 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 checked="" type="checkbox"/> Licence amendment <input 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	165 cubic metres per annual period
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	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 Cocos (Keeling) Islands are a group of 27 coral islands located in the Indian Ocean. They are situated approximately 3,000 km north-west of Perth, 3,700 km west of Darwin and 900 km south-west of Christmas Island. Home Island Wastewater Treatment Plant (WWTP) is located on Part 103, part of Lot 1106 on Plan 30520 Home Island, Cocos (Keeling) Islands.

The WWTP design capacity was originally assessed at 165 cubic meters per day, peak wet weather flow. Water Corporation have indicated that the plant capacity may be lower than the current identified design capacity of the Premises and that a potential upgrade may be required.

Wastewater is treated to secondary standard via an Intermittently Decanted Extended Aeration (IDEA) process. Treated wastewater is decanted from the aeration tank to the balance tank before being disinfected by Ultra Violet (UV) radiation. Treated wastewater is discharged to the Indian Ocean via the outfall pipeline approximately 300m off shore and at a depth of 15m. Sludge management is by manual wasting into covered drying beds. Dried sludge is then transferred to the Shire transfer station on Home Island (L8684/2012/1). Random, manual chlorination (tablets) treatment is undertaken for the control of algal growth within the balance tank.

Ocean disposal of treated wastewater is the primary disposal option due to the location of the treatment plant adjacent to the Indian Ocean. The sensitivity and vulnerability of the groundwater, exclude wastewater reuse as a disposal method option on the Island.

The groundwater resource on Home Island consists of a series of freshwater lenses, directly recharged via rainfall infiltration. Home Island has two small lenses approximately 1-2m below ground level. The main fresh water lens and the drinking water supply, is located to the south of the Island. A brackish water lens is located to the North within the vicinity of the plant. Two galleries draw water from the Northern Lens, with salinity reduced by Reverse Osmosis and then treated by UV disinfection. Periodic chlorination of the balance tank occurs for management of the algal growth.

Land use surrounding the WWTP is predominately industrial. Adjacent to the WWTP is the Shire landfill and the Powerhouse. The landfill and other industrial uses may contribute to nutrient levels in the groundwater or ocean within the vicinity of the WWTP.

The main emissions from the Premises are discharge of treated effluent via ocean outfall and odour. The Licence contains conditions to address both of these issues and includes monitoring requirements where appropriate.

The Licence is being reissued in REFIRE format and is recommended for a period of five years.



## 4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986 (WA)(CKI)*, 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.

<b>DECISION TABLE</b>				
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L = Licence</b>	<b>OSC or NSC</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>General conditions</b>	L1.2.1-L1.2.3		Descriptive standard conditions have been included within section 1.2 of the Licence.	N/A
<b>Premises operation</b>	L1.3.2 L1.3.5 L1.3.7	OSC OSC NSC	OSC 1.3.2 replaced condition 16 and 17(c) of the previous Licence. OSC 1.3.5 replaces condition 1 of the previous Licence. NSC 1.3.7 has been included from condition 7 of the previous Licence.	
<b>Emissions general</b>	L2.1.1	OSC	Descriptive targets will be set through condition 2.3.2 of the licence and therefore OSC regarding recording and investigation of exceedances of targets has been included.  Monitoring for Total Phosphorus has been included within the Licence to standardise monitoring of parameter units across Indian Ocean territory sites. This has been confirmed with Water Corporation, D. Scott, 02/12/14.	N/A
<b>Point source emissions to air including monitoring</b>	L2.2 L3.2	N/A	Emissions to air have not been reassessed through this reissue process.	General provisions of the <i>Environmental Protection Act 1986 (WA)(CKI)</i>
<b>Point source emissions to surface water including monitoring</b>	L2.3.1 L2.3.2 L3.3.1		OSC 2.3.1 and OSC 2.3.2 replaces condition 2 of the previous Licence.  OSC 3.3.1 replaces condition 3, 8, 12 and 13 of the previous Licence. The monitoring frequency for heavy metals has been reduced from 6 monthly to annually. There are no industries on the island and Water Corporation confirm that	Australian and New Zealand guidelines for fresh and marine water quality – 2000



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>there have been no detections of cadmium, mercury or lead in the previous 5 years of monitoring submitted.</p> <p>Treated wastewater is discharged to the Indian Ocean via an outfall pipe which is approximately 300m off shore, at a depth of 15m.</p> <p>The limits have been changed to targets as agreed by Principle Officer IOT and the proponent. The use of limits was considered inconsistent with other similar Premises managed by Water Corporation.</p> <p><u>Emission Description</u>  <i>Emission:</i> Discharge of chlorine to ocean. Chlorine tablets are added to the balance tank for the control of algal growth.  <i>Impact:</i> Damage of coral beds or impacts to other marine life.  <i>Controls:</i> Nil.</p> <p><u>Risk Assessment</u>  <i>Consequence:</i> Minor  <i>Likelihood:</i> Possible  <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u>            An additional parameter has been included within OSC 2.3.2 in the the licence to require the operator to monitor for potential residual chlorine.</p> <p><u>Residual Risk</u>  <i>Consequence:</i> Insignificant  <i>Likelihood:</i> Unlikely  <i>Risk Rating:</i> Low</p>	



<b>DECISION TABLE</b>				
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>OSC or NSC</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Point source emissions to groundwater including monitoring</b>	L2.4 L3.4	N/A	Point source emissions to groundwater and monitoring has not been reassessed through this reissue process.  There are no point source emissions to groundwater from the premises.	General provisions of the <i>Environmental Protection Act 1986 (WA)(CKI)</i>
<b>Emissions to land including monitoring</b>	L2.5 L3.5	N/A	Emissions to land have not been reassessed through this reissue process.  There are no emissions to land occurring from the activities at the Premises.	<i>Environmental Protection (Unauthorised Discharges) Regulations, 2004</i>
<b>Fugitive emissions</b>	L2.6	N/A	Fugitive emissions have not been reassessed through this reissue process.  No fugitive emissions occur from the premises operations.	
<b>Odour</b>	L2.7	N/A	Odour has not been reassessed through this reissue process.  The premises is located approximately 500m north-west of potential sensitive receptors, and is within an industrial precinct. No complaints of odour have been received for the WWTP.	
<b>Noise</b>	L2.8	N/A	Noise has not been reassessed through this reissue process.  The Premises is located approximately 500m north-west of potential sensitive receptors, and is within an industrial precinct. The WWTP does not generate excess noise through its operation. The Premises is subject to the noise regulations which will provide adequate regulatory control in the event of any noise issues.	<i>Environmental Protection (Noise) Regulations 1997</i>
<b>Monitoring general</b>	L3.1.1	OSC	OSC 3.1.1(a) has replaced condition 9 of the previous Licence. Condition 10 has been removed from the Licence as this condition is now obsolete within the REFIRE format.  OSC 3.1.1(f) has replaced condition 11 of the previous Licence.	





<b>DECISION TABLE</b>				
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>OSC or NSC</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Monitoring of inputs and outputs</b>	L3.6.1	OSC	OSC 3.6.1 replaces condition 3 of the previous Licence. The monitoring frequency has been changed from a weekly averaging period to monthly averaging period of the continuous monitoring data.	
<b>Process monitoring</b>	L3.7.1	OSC	<p>OSC 3.7.1 replaces conditions 4, 5, 6, 14 and 15 of the previous Licence relating to marine and benthic surveys as well as marine sampling.</p> <p>Historical data collected has shown no adverse changes to the marine environment from the activities being carried out from the WWTP. Dilution and dispersion factors have assisted in the reduction of impact to the marine environment.</p> <p>Intervals between monitoring frequencies for 6 monthly monitoring has been defined as at least 3 months apart instead of 4. This is due to tidal influences which make monitoring difficult and safety issues become a concern. This can only be done safely during the doldrums on Home Island, when weather and seas are calmer. This typically is between November and March. Additionally there is no longer a local dive contractor based on Cocos Island, which restricts sampling to contractors scheduled visits. Previously dive inspections have been undertaken in November, with a follow up in Feb/March the next year.</p>	General provisions of the <i>Environmental Protection Act 1986 (WA)(CKI)</i>
<b>Ambient quality monitoring</b>	L3.8.1	OSC	OSC 3.8.1 replaces condition 8, Table 1, of the groundwater monitoring requirements from the previous Licence.	General provisions of the <i>Environmental Protection Act 1986 (WA)(CKI)</i>
<b>Meteorological monitoring</b>	L3.9	N/A	Meteorological monitoring has not been reassessed through this reissue process. No conditions relating to meteorological monitoring were included within the previous Licence.	
<b>Improvements</b>	L4.1	N/A	Improvement conditions have not been included in this reissue process.	



<b>DECISION TABLE</b>				
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>OSC or NSC</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Information</b>	L5.1.3 L5.1.4 L5.2.1	OSC OSC OSC	OSC 5.1.3 replaces condition 18 of the previous Licence. OSC 5.1.4 replaces condition 17(d) of the previous Licence. OSC 5.2.1 replaces condition 17(a) and 17(b) of the previous Licence.	
<b>Licence Duration</b>	N/A	N/A	The Licence was previously issued for a period of three years and expires on 23 February 2015.  It is being reissued and recommended for a period of five years as is current DER procedure. There are no issues that warrant the limitation of the licence period for the Premises.	



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
22/12/2014	Application advertised in West Australian (or other relevant newspaper)	Due to 'The Atoll' newspaper shutting down over the festive season (December to February 2015), public notices were displayed at the Community Resource Centre on Home Island and West Island to notify public.	N/A
12/12/2014	Proponent sent a copy of draft instrument	Draft submitted through to Danielle Scott (Water Corporation) via email for comment. Comments received back on 17/12/2014.	Minor changes made to documentation to accurately reflect the activities and processes being undertaken at the Premises.



## 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