



Mr Gordon Groth
Water Corporation
PO Box 100
DERBY WA 6902

Dear Mr Groth

ENVIRONMENTAL PROTECTION ACT 1986 – AMENDMENT TO LICENCE

Licence: L6270/1991/10

Premises: Kununurra Wastewater Treatment Plant

Following my letter dated Thursday 29 May 2015 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 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.

Members of the public may also appeal the amendments. The Appeals Registrar at the Office of the Appeals Convenor can be contacted after the 21 day closing date to check whether any appeals were received.

Yours faithfully,

Rebecca Kelly
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

11 June 2015



Licence

Environmental Protection Act 1986, Part V

Licensee: Water Corporation

Licence: L6270/1991/10

Registered office: 629 Newcastle Street
LEEDERVILLE WA 6007

Premises address: Kununurra Wastewater Treatment Plant
Reserve 30945 Duncan Highway,
KUNUNURRA WA 6743
Being Lot 3008 on Plan 48173 as depicted in Schedule 1

Issue date: Thursday, 31 October 2013

Commencement date: Friday, 01 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	2000 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 Kununurra Wastewater Treatment Plant (WWTP) is licensed to treat up to 2000kL/day of wastewater. It treats wastewater to a secondary standard using two series of primary, secondary, tertiary and quaternary ponds. Following pond treatment, effluent is subject to chlorination before being discharged to the M1 Channel.

The WWTP is located 1.3 kilometres south west of the Kununurra town centre (Post Office), which is located in the Kimberley region of Western Australia and is the administrative and commercial precinct for the Ord River Irrigation Area (ORIA) (DoE 2003). The closest sensitive receptor is 1 km to the south east, which are residents in the Kimberleyland Caravan Park. The region experiences a tropical climate with a distinct dry and wet season. The wet season is from November to April and is characterised by high temperatures, high humidity and heavy rainfall from monsoonal and cyclonic activity, whilst the dry season is from May to October and is comprised of moderate temperatures and low rainfall. Although subject to variability, the mean annual rainfall for Kununurra is 850mm, with the majority of this rain falling in the wet season (BoM 2012). Constructed in 1967, the plant was upgraded in 1988. Treated wastewater from the WWTP is discharged to the Water Corporation's M1 Channel, which is located approximately 200m to the west of the WWTP. The M1 Channel draws water from the Kununurra Diversion Dam and supplies this water via a gravity-fed system to customers on the Ivanhoe Plain of the ORIA for irrigation purposes (Water Corporation 2012).

Any significant degradation to the quality of the water within the M1 Channel (as a result of discharge from the Kununurra WWTP) may have impact on the suitability of the water for irrigation purposes. Notwithstanding this, the continued release of water from the Kununurra Diversion Dam into the M1 Channel during the dry season is believed to ensure that the quality of water within the channel is suitable for irrigation purposes. However during the wet season when there is little demand for irrigation water from the M1 Channel, the channel is flushed with water from the Kununurra Diversion Dam as required to ensure that the water quality within the channel is of a suitable standard.

This Licence is the result of an amendment sought by the Licensee to allow the presence of Duckweed in the treatment ponds.



The licences and works approvals issued for the Premises since inception are provided in the instrument log below:

Instrument log		
Instrument	Issued	Description
3446	21/02/1992	New application
4083	21/02/1993	Licence re-issue
6270	01/10/1995	Licence re-issue
6270/2	01/10/1998	Licence re-issue
W208/91/0	23/09/1998	Works Approval
6270/3	07/10/1999	Licence re-issue
6270/4	07/10/2000	Licence re-issue
6270/4	07/10/2001	Licence re-issue
6270/5	07/10/2002	Licence re-issue
6270/6	07/10/2003	Licence re-issue
6270/7	07/10/2004	Licence re-issue
6270/8	01/11/2006	Licence re-issue
L6270/1991/9	31/10/2008	Licence re-issue
L6270/1991/10	31/10/2013	Licence re-issue to REFIRE format
L6270/1991/10	26/03/2015	Licence amendment to give effect to Minister for Environment Appeal determination 371/13
L6270/1991/10	11/06/2015	Licence amendment to allow the presence of Duckweed in the treatment ponds

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*;

'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 5667.4' means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made*;

'AS/NZS 5667.6' means the Australian Standard AS/NZS 5667.6 *Water Quality – Sampling – Guidance on sampling of rivers and streams*;

'AS/NZS 5667.10' means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*;

'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 (Waste North)
Department of Environment Regulation
Locked Bag 33 Cloister Square
PERTH WA
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;

‘hardstand’ means a surface with a permeability of 10^{-9} metres/second or less;

‘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 L6270/1991/10 and issued under the Act;

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

‘M1 Channel’ means the irrigation channel as depicted in Schedule 1 Premises Map;

‘Magflow Meter SP Kununurra WWTP Env. Discharge’ means the sample point as depicted in Schedule 1 Map of Monitoring Locations;

‘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;

‘Post Chlorination Sample Point’ means the sample point as depicted in Schedule 1 Map of Monitoring Locations;

‘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 period’ means the four inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March;

‘Schedule 1’ means Schedule 1 of this Licence unless otherwise stated;



‘Schedule 2’ means Schedule 2 of this Licence unless otherwise stated;

‘spot sample’ means a discrete sample representative at the time and place at which the sample is taken; and

‘Treatment Plant Outlet Pipe’ means the sample point as depicted in Schedule 1 Map of Monitoring Locations.

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 materials 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.¹

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
Sewage	None Specified	Accepted through sewer inflow(s) only



- 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 limits and/or targets described in that table.

Table 1.3.2: Waste processing		
Waste type	Process	Process limits and/or targets
Sewage	Biological, physical and chemical treatment	Treatment of sewage and septage waste shall be targeted at or below the treatment capacity of 2000 m ³ /day
Sewage sludge	Storage	None specified

- 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	Grit and Screenings	Stored in a sealed bin which is surrounded by a bunded hardstand area which returns sludge leachate to the start of the treatment process
Facultative Treatment Ponds (1A and 1B)	Wastewater	Lined to achieve a permeability of less than 10 ⁻⁹ m/s or equivalent
Maturation Treatment Pond (2A, 2B, 3A, 3B, 4A and 4B)	Wastewater	Lined with 25cm clay liner
M1 Channel	Treated wastewater	In-situ clay lined
Sewage sludge compound	Sewage sludge	A bunded hardstand area capable of preventing surface run-off of leachate and sludge and which returns sludge leachate to the start of the treatment process.

- 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 at or below 200mm 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* sp.) on wastewater treatment 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 :
- (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.

2 Emissions

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

2.1 General

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

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	Monitoring point and reference on Map of emission points	Description	Source including abatement
M1 Channel	Treatment Plant Outlet Pipe	Discharge to M1 Channel via wastewater discharge point	Treated wastewater pipeline from wastewater treatment plant

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 unless indicated otherwise in relevant table;
 - (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 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant;
 - (d) all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
 - (e) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in 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 record production or throughput data and any other process parameters relevant to any non-continuous monitoring undertaken.
- 3.1.4 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 and the requirements of the Licence.
- 3.1.5 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 and location	Parameter	Units	Averaging Period	Frequency
M1 Channel	Magflow Meter SP Kununurra WWTP Env. Discharge	Volumetric flow rate (cumulative)	L/s m ³ /hr	Continuous	Weekly
	Treatment Plant Outlet Pipe	pH ¹	mg/L	Spot sample	Quarterly
		5-day Biochemical Oxygen Demand			
		Total Suspended Solids			
		Total Nitrogen			
		Total Phosphorus			
		Total Dissolved Solids			
	Post Chlorination Sample Point	<i>Escherichia coli</i>	Cfu/100mL		Quarterly

Note 1: In-field non-NATA accredited analysis 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 Measurement (rising main)	None specified	Volumetric flow rate (cumulative)	m ³ /d or ML/d	Monthly	Monthly

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.



Table 3.8.1 Monitoring of Ambient Environmental quality monitoring				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
M1 Channel sampling point approximately 50 metres upstream	Total Nitrogen; Total Phosphorus; and <i>Escherichia coli</i>	mg/L for Total Nitrogen and Total Phosphorus	Spot sample	Quarterly
M1 Channel sampling point approximately 225 metres down stream		Cfu/100mL for <i>Escherichia coli</i>		
M1 Channel sampling point approximately 1 kilometre down stream				
M1 Channel sampling point approximately 6 kilometres down stream				

3.9 Meteorological monitoring

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



4 Improvements

4.1 Improvement program

4.1.1 The Licensee shall complete the improvements in Table 4.1.1 by the date specified.

Table 4.1.1: Improvement program		
Improvement reference	Improvement	Date of completion
IR1	The Licensee shall submit to the CEO a report that assesses the design, operation and emissions achieved at the Premises against industry standards for preventing or abating pollution or environmental harm for the discharges to water; M1 Channel.	30/11/14
IR2	Where the design, operation and emission levels at the Premises do not conform to industry standards for preventing or abating pollution or environmental harm the report shall contain commitments and actions to improve wastewater quality with an improvement timetable and establishing appropriate discharge limits for key contaminants to achieve these industry standards.	31/05/15
IR3	The Licensee shall submit to the CEO a report which provides a review of all alternate wastewater re-use options and recommendations on any alternate disposal options.	30/11/14
IR4	The Licensee shall submit to the CEO a report which provides a review, by a suitably qualified independent third party, of all current and previous scientific studies in relation to possible impacts from wastewater discharges into the M1 Channel. The report is to make appropriate recommendations on the feasibility of the continued discharge of treated wastewater to the M1 Channel.	30/11/14



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:
- (a) implement a complaints management system that shall record the following information (if known or provided) about complaints received at the Premises concerning any environmental impact of the activities undertaken at the Premises:
 - (i) name and address of the complainant(s) (if consented);
 - (ii) date and time of complaint;
 - (iii) date and time of alleged incident;
 - (iv) alleged source of the incident;
 - (v) general description of the alleged incident, including any environmental or health impacts reported by the complainant;
 - (vi) wind direction, wind speed and temperature at time of alleged incident; and
 - (vii) actions taken by licensee to address complaint, including the outcome of any investigation(s) and action(s) to verify any impacts.
 - (b) complete an annual analysis and review of complaints recorded under 5.1.4(a) to identify any common factors and root cause of complaints and proposals to address these.



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 ¹
-	Summary of any failure or malfunction of any pollution control equipment or any 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
Table 3.3.1	Monitoring of point source emissions to surface waters	None specified
	Contaminant loading (kg/day – monthly average) to surface water of parameters monitored in Table 3.2.1 (except pH and E.coli)	None specified
Table 3.6.1	Monitoring of inputs and outputs	None specified
Table 3.8.1	Monitoring of ambient environmental 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 also contains:
- any relevant process, production or operational data recorded under Condition 3.1.3; and
 - 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 ¹
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEO's 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 ¹	Format or form
3.1.4	Calibration report	As soon as practicable.	None specified
-	Taking a 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 ²	
-	Any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	As soon as practicable	None specified

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

Note 2: 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 red line depicts the Premises boundary.





Map of monitoring locations

The locations of the monitoring points defined in Table 3.3.1 are shown below.





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 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 initialised by the person(s) who signs Section C of this 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)



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Water Corporation

Licence: L6270/1991/10

Registered office: 629 Newcastle Street
LEEDERVILLE WA 6007

ABN: 28 003 434 917

Premises address: Kununurra Wastewater Treatment Plant
Reserve 30945 Duncan Highway,
Lot 3008 on Plan 48173
KUNUNURRA WA 6743

Issue date: Thursday, 31 October 2013

Commencement date: Friday, 01 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.

Decision Document prepared by: Damian Thomas
Licensing Officer

Decision Document authorised by: Alan Kietzmann
A/Manager Licensing



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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application for a works approval or licence, 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: 1.1.1-1.1.3, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

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

Optional standard conditions (OSC)

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

Non standard conditions (NSC)

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



2 Administrative summary

Administrative details		
Application Type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed Design capacity
	54	2,000 cubic metres per day
Application verified	Date: N/A	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	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, e.g. Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal

The Kununurra Wastewater Treatment Plant (WWTP) is licensed to treat up to 2000kL/day of wastewater and treats wastewater to a secondary standard using two series of primary, secondary, tertiary and quaternary ponds and is operated by Water Corporation (WC). Following pond treatment, effluent is subject to chlorination before being discharged to the M1 Channel.

The WWTP is located 1.3 kilometres south west of the Kununurra town centre (Post Office), which is located in the Kimberley region of Western Australia and is the administrative and commercial precinct for the Ord River Irrigation Area (ORIA) (DoE 2003). The closest sensitive receptor is 1 km to the south east, which are residents in the Kimberleyland Caravan Park. The region experiences a tropical climate with a distinct dry and wet season. The wet season is from November to April and is characterised by high temperatures, high humidity and heavy rainfall from monsoonal and cyclonic activity, whilst the dry season is from May to October and is comprised of moderate temperatures and low rainfall. Although subject to variability, the mean annual rainfall for Kununurra is 850mm, with the majority of this rain falling in the wet season (BoM 2012). Constructed in 1967, the plant was upgraded in 1988. Treated wastewater from the WWTP is discharged to the Water Corporation's M1 Channel, which is located approximately 200m to the west of the WWTP. The M1 Channel draws water from the Kununurra Diversion Dam and supplies this water via a gravity-fed system to customers on the Ivanhoe Plain of the ORIA for irrigation purposes (Water Corporation 2012).

Any significant degradation to the quality of the water within the M1 Channel (as a result of discharge from the Kununurra WWTP) may have impact on the suitability of the water for irrigation purposes. Notwithstanding this, the continued release of water from the Kununurra Diversion Dam into the M1 Channel during the dry season is believed to ensure that the quality of water within the channel is suitable for irrigation purposes. However during the wet season when there is little demand for irrigation water from the M1 Channel, the channel is flushed with water from the Kununurra Diversion Dam as required to ensure that the water quality within the channel is of a suitable standard.

The nearest sensitive receptor is approximately 1 km away south-east from the premises. The premises are surrounded by native vegetation and the Department of Park and Wildlife arboretum. Depth to groundwater is unknown below the WWTP.

Water Corporation has submitted a Form P4 on 13 May 2015 requesting the licence be amended to allow the presence of Duckweed in the WWTP ponds. In subsequent discussions WC has requested that the ponds have the ability to overflow in extreme rainfall events. As part of this amendment, DER has not re-assessed the acceptability or impacts of emissions and discharges from the Premises or re-visited any existing emission control levels. No changes to the conditions on the licence have been made with the exception of condition 1.3.5 (a), (e) and (f) in section 1 of the licence.

4 Decision table

All applications are assessed under the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DER's *Policy Statement No.7 – Operational Risk Management* and the risk matrix attached to this decision document in Appendix A. Where other references have been used in making the decision they are detailed in the decision table.

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
Premises operation	L1.3.5 (e) and (f) L1.3.5(a)	OSC	<p>Operation</p> <p>Duckweeds, or water lens, are fast growing (blooms typically occur in waters rich in nutrients, especially phosphorus and/or nitrogen), flowering aquatic plants which float on or just beneath the surface of still or slow-moving bodies of fresh water and wetlands. In October 2013 Water Corporation submitted duckweed technical investigation report on the investigation into impacts on wastewater treatment efficiency, including Biochemical Oxygen Demand, Suspended Solids and nutrient removal processes and evaporative processes, from the presence of duckweed on ponds in the north west of the State. DER assessed the report and concluded that the findings provide evidence to support Water Corporation's request to allow for duckweed on wastewater treatment ponds in the Kimberley.</p> <p>WC have requested that overtopping of the ponds does not occur except as a result of an extreme rainfall event. This condition appears on other WC licenses.</p>	<p>General Provisions of the <i>Environmental Protection Act 1986</i></p> <p>Application supporting documentation.</p> <p>L6270/1991/10</p>
Licence Duration	N/A	N/A	The licence duration remains five years (no change to duration as part of this amendment). WC is proposing to construct a new WWTP in 2023 and upgrade the WWTP in 2017.	N/A



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
29/05/2015	Proponent sent a copy of proposed Licence amendment	The signed waiver letter was received on 6 June 2015 with no further comment made.	Finalisation of Licence amendment



6. Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

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