



Licence

Environmental Protection Act 1986, Part V

Licensee: City of Karratha

Licence: L8773/2013/1

Registered office: Welcome Road
KARRATHA WA 6714

ABN: 83 812 049 708

Premises address: Karratha Airport Wastewater Treatment Plant
Lot 300 on Plan 41931 and part lot 302 on Plan 41933
Within coordinates:
S-20.709804, E116.755533; S-20.707978, E116.768687;
S-20.706241, E116.768708; S-20.704987, E116.782312;
S-20.712895, E116.782613; S-20.714260, E116.769695;
S-20.711610, E116.756992
GAP RIDGE, WA 6714
As depicted in Schedule 1.

Issue date: Thursday 12 December 2013

Commencement date: Monday, 16 December 2013

Expiry date: Saturday, 15 December 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	200 cubic metres per day

Conditions

Subject to this Licence and the conditions set out in the attached pages.

Date signed: 19 November 2015

.....
Steve Checker
MANAGER LICENSING (WASTE INDUSTRIES)
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 protect and conserve the state's environment on behalf of the people of Western Australia.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitor and audit compliance with works approvals and licence conditions, take enforcement action as appropriate and develop and implement 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.

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. Operating without a licence is an offence under the Act.

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 City of Karratha has installed a wastewater treatment plant (WWTP) with a design capacity of 200 cubic metres (m³) per day, at the Karratha Airport. The current throughput is expected to be up to 100m³ per day, however, the larger capacity allows for future expansion and upgrade of the airport and terminal.

The WWTP is located at the Karratha Airport, which is adjacent to the Dampier Salt evaporation ponds. The site is approximately 500 metres (m) from a tidal creek on the coastal plain and groundwater at the site is approximately 2 m below ground level. The site is flat and comprises of reactive clay type soils.

The WWTP is a package plant from MAK Industrial Water Solutions and treats the effluent to Department of Health's 'high exposure' risk level, making it suitable for reuse. The wastewater is sourced from the Karratha airport and associated facilities within the airport precinct. The plant is located at the rear of the airport facilities and consists of two 40 foot sea containers with associated tanks and an inlet screen. One container houses the bioreactor and the second the ultra filtration membranes and chemical storage containers for dosing of ferric chloride, caustic soda, sodium hypochlorite and citric acid. All chemicals are stored in a fully bunded and self contained area.

The WWTP consist of 10 process storage tanks:

- 1 supernatant storage tank, with a capacity of 2m³;
- 4 balance tanks, each with the capacity of 60m³;
- 4 treated water tanks, each with the capacity of 60m³; and
- 1 sludge storage tank with a capacity of 60m³.

The treated wastewater is piped to various locations for reuse within the airport facility and also taken off-site to the City's landfill for use in dust suppression. Reuse options for the wastewater are:

- Irrigation to 10.37 hectares of landscaped areas;
- Fire fighting and training;
- Aviation wash down;
- Hire car wash down; and
- Removal from site for dust suppression at the Seven Mile Landfill site.

The fire fighting training area and irrigation areas are clearly signposted, with access limited to meet the Department of Health's Guidelines for the Use of Recycled Water in Western Australia.

A leach pond with the capacity of up to 220m³ has been constructed to accommodate emergency surplus overflow from the treated storage tanks. The pond is only used when all other reuse options have been exhausted. The pond is located within the fenced area of the WWTP to prevent unauthorised access to the area.



2015 Amendment

This Licence amendment has been initiated by DER to align the due date for the Annual Environmental Report (AER) due date with the annual period defined in the Licence. This will ensure a more practical due date/annual period which aligns with that of other Licences held by the City of Karratha.

The licences and works approvals issued for the Premises since 9 May 2013 are:

Instrument log		
Instrument	Issued	Description
W5349/2013/1	9/5/2013	Works approval for construction of WWTP
L8773/2013/1	12/12/2013	Issue of licence
L8773/2013/1	18/11/2015	Licence amendment to align annual period with due date of AER

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 January until 31 December in each year;

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

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

'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;

Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

'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;

'Licence' means this Licence numbered L8773/2013/1 and issued under the *Environmental Protection Act 1986*;

'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;



'normal operating conditions' means any operation of a particular process (including abatement equipment) excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring;

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

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

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

'shut-down' means the period when plant or equipment is brought from normal operating conditions to inactivity;

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

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the current version of that standard.

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.

1.1.5 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 General conditions

1.2.1 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.

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

1.2.3 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 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	200 m ³ / day	Accepted through sewer inflow(s) only

1.3.2 The Licensee shall ensure that the wastes accepted onto the Premises are only subjected to the processes set out in Table 1.3.2 and in accordance with any process limits described in that table.

Table 1.3.2: Waste processing

Waste type	Process	Process limits
Sewage	Biological, physical and chemical treatment	None specified

- 1.3.3 The Licensee shall manage the irrigation of treated wastewater such that:
- (a) no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the defined irrigation area(s);
 - (b) treated wastewater is evenly distributed over the irrigation area;
 - (c) no soil erosion occurs;
 - (d) irrigation does not occur on land that is waterlogged; and
 - (e) vegetation cover is maintained over the irrigation areas identified in Table 2.5.1.
- 1.3.4 The Licensee shall manage the wastewater treatment infiltration pond such that:
- (a) overtopping of the ponds does not occur;
 - (b) the integrity of the containment infrastructure is maintained; and
 - (c) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.
- 1.3.5 The Licensee shall manage the wastewater treatment vessels such that:
- (a) overtopping of the wastewater treatment vessels does not occur;
 - (b) stormwater runoff is prevented from entering the wastewater treatment vessels;
 - (c) there is no discernible seepage loss from the wastewater treatment vessels; and
 - (d) vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the wastewater treatment vessels.



2 Emissions

2.1 General

2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit, in this section.

2.2 Emissions to land

2.2.1 The Licensee shall ensure that where waste is emitted to land from the emission points in Table 2.2.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this licence.

Table 2.2.1: Emissions to land

Emission point reference and location on Premises map	Emission point reference on Map of emission points	Description	Source including abatement
L1 – Blue area	Irrigation areas	Irrigation of wastewater to designated landscaped areas within prescribed premises.	Treated wastewater from WWTP
L2 – Red area	Fire fighting and training area	Wastewater used for fire fighting and training within the prescribed premises.	
L3 – Purple circle	Aviation washdown facility	Wastewater used for washing down aircraft at washdown facility.	
L4 – Yellow area	Emergency leach pond	Infiltration and evaporation of treated wastewater which cannot be reused.	
L5 – Pink circle	Hydrant for water trucks for off-site use	Non potable hydrant to fill water truck for use at the Seven Mile Landfill.	

2.2.2 The Licensee shall not cause or allow emissions to land greater than the limits listed in Table 2.2.2.

Table 2.2.2: Emission limits to land

Emission point reference	Parameter	Limit (including units)	Averaging period
L1	Total Nitrogen	480 kg/ha/year	Annual
	Total Phosphorus	120 kg/ha/year	



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; and
 - (c) all laboratory samples are submitted to a laboratory with current NATA accreditation for the parameters to be measured unless indicated otherwise in relevant table.
- 3.1.2 The Licensee shall ensure that monthly monitoring is undertaken at least 15 days apart.
- 3.1.3 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 Director accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of emissions to land

- 3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of emissions to land					
Emission point reference	Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
	Final storage tank	Volumetric flow rate	m ³ /day	Monthly	Continuous
L1 – L5	Final storage tank - prior to discharge to emission points	pH ¹	pH units	Spot sample	Continuous online
		5-Day Biochemical Oxygen Demand	mg/L		Monthly
		Total Suspended Solids	mg/L		
		Total Nitrogen	mg/L		
		Total Phosphorus	mg/L		
		<i>E.Coli</i>	cfu/100ml		
L1	None specified - calculation	Load of Total Nitrogen	kg/ha/yr	Monthly	Annual
		Load of Total Phosphorus			

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



3.3 Monitoring of inputs and outputs

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 inputs and outputs					
Input/output	Monitoring point reference	Parameter	Units	Averaging period	Frequency
Treated wastewater discharge to L1 – Irrigation areas	Flow meter devices on outgoing pipelines	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous
Treated wastewater discharge to L2 - Fire fighting and training area					
Treated wastewater discharge to L3 - Aviation washdown facility					
Treated wastewater discharge to L4 - Emergency leach pond					
Treated wastewater discharge to L5 - Hydrant for water trucks for off-site use					
Treated wastewater discharge to L6 - Car hire premises					



4 Information

4.1 Records

- 4.1.1 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.
- 4.1.2 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.
- 4.1.3 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.
- 4.1.4 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.

4.2 Reporting

- 4.2.1 The Licensee shall submit to the Director an Annual Environmental Report by 1 March each year. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form¹
-	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 3.2.1	pH, 5 Day Biochemical Oxygen Demand, Total Suspended Solids, Total Nitrogen, Total Phosphorus, <i>E.coli</i> and Volumetric flow rate	Tabular form
Table 3.2.1	Nutrient loading (kg/ha/day- monthly average and kg/ha/year total) to land (L1) of Nitrogen and Phosphorus	Tabular form
Table 3.3.1	Cumulative volumes to: Irrigation areas, Fire fighting and training area, Aviation washdown facility, emergency leach pond, Hydrant for water trucks for off-site use and Car hire premises.	Tabular form
4.1.3	Compliance	Annual Audit Compliance Report (AACR)
4.1.4	Complaints summary	None specified



Note 1: Forms are in Schedule 2

- 4.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:
- (a) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets; and
 - (b) a list of any original monitoring reports submitted to the Licensee from third parties for the annual period and make these reports available on request.

4.3 Notification

4.3.1 The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the Director in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
3.1.4	Calibration report	As soon as practicable.	None specified

Note 1: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act

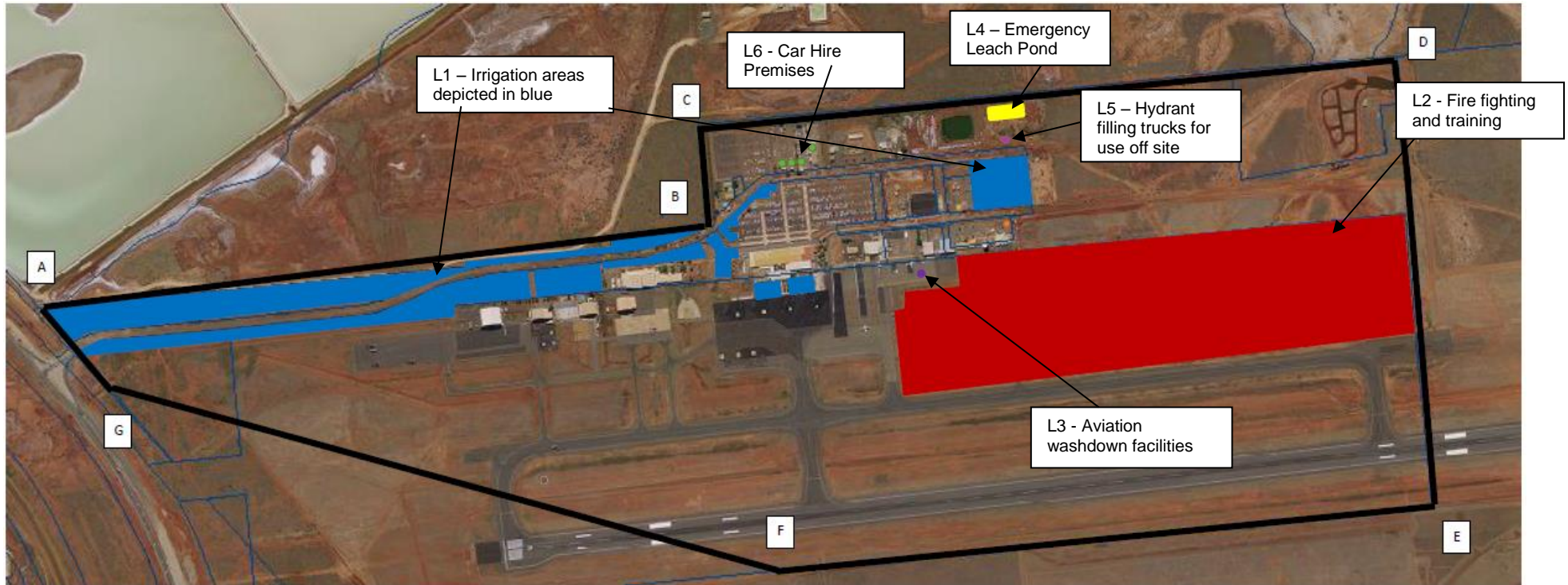
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

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



A	S-20.709804	E116.755533
B	S-20.707978	E116.768687
C	S-20.706241	E116.768708
D	S-20.704987	E116.782312
E	S-20.712895	E116.782613
F	S-20.714260	E116.769695
G	S-20.711610	E116.756992



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.

SECTION A LICENCE DETAILS

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

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the licence complied with within the reporting period? (please tick the appropriate box)

Yes Please proceed to Section C
 No Please proceed to Section B

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

Initial:



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

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

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

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

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

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

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

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

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

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

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____



Licence: L8773/2013/1
 Form: N1

Licensee: City of Karratha
 Date of breach:

Notification of detection of the breach of a limit.

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	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
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	

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 City of Karratha	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Shire of Roebourne

Licence: L8773/2013/1

Registered office: Welcome Road
KARRATHA WA 6714

ABN: 83 812 049 708

Premises address: Karratha Airport Wastewater Treatment Plant
Lot 300 on Plan 41931 and part Lot 302 on Plan 41933
Within coordinates:
S-20.709804, E116.755533; S-20.707978, E116.768687;
S-20.706241, E116.768708; S-20.704987, E116.782312;
S-20.712895, E116.782613; S-20.714260, E116.769695;
S-20.711610, E116.756992
GAP RIDGE, WA 6714

Issue date: Thursday 12 December 2013

Commencement date: Monday, 16 December 2013

Expiry date: Saturday, 15 December 2018

Decision

Based on the assessment detailed in this document, the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by:

Chris Slavin
Licensing Officer

Decision Document authorised by:

Steve Checker
Manager Licensing



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6. Emissions and discharges risk assessment matrix	Error! Bookmark not defined.

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.



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)	Approved design capacity
	54	200 cubic metres per day
Application verified	Date: 30 July 2013	
Application fee paid	Date: 8 August 2013	
Works Approval has been complied with	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Compliance Certificate received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal

The City of Karratha operates the Karratha Airport treatment plant (WWTP). The WWTP is a package plant from MAK Industrial Water Solutions and treats the effluent to Department of Health's 'high exposure' risk level, making it suitable for reuse. The design capacity is 200 m³ per day. The current throughput is around 100m³ per day, however, the larger capacity allows for future expansion and upgrade of the airport and terminal.

A leach pond with the capacity of up to 220m³ has been constructed to accommodate emergency surplus overflow from the treated storage tanks. The pond is only used when all other reuse options have been exhausted. Overflow into the pond is dispersed by evaporation and infiltration. The pond is located within the fenced area of the WWTP and is signed and gated to prevent entry by unauthorised personnel.

The WWTP is located adjacent to the Dampier Salt evaporation ponds. The site is approximately 500 m from a tidal creek on the coastal plain and groundwater at the site is approximately 2m below ground level (mbgl). The site is flat and comprises of reactive clay type soils

This Licence amendment has been initiated by DER to align the due date for the Annual Environmental Report (AER) with the annual period defined in the Licence. This will ensure a more practical due date which aligns with that of other Licences held by the City of Karratha. Where conditions have been amended or changed, they have been justified in section 4 below.

The 21 day draft package was sent to the City of Karratha on Thursday 5 of November 2015. The waiver form was signed and submitted to DER on Tuesday 17 November 2015 requesting the Licence be amended as soon as possible with the proposed changes..



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation	L1.3.4	Licence condition 1.3.4 (b) has been removed from the licence which required the licensee to maintain a freeboard target of 300mm for the leach pond. This direction is consistent with DER's operational policy regarding targets and trigger levels for low risk emissions in Licences and Works Approvals. The licensee is still required to ensure the over topping of the ponds does not occur as part of condition 1.3.4 (a) and report any discharges of waste to DER under S.72 of the <i>Environmental Protection Act 1986</i> .	N/A
Emission targets to land	L2.2.3	<p><u>Emission Description</u> <i>Emission:</i> Discharge of tertiary treated wastewater to the designated landscaped areas within the premises and other areas of the airport where the TWW is used for beneficial purposes. Infiltration of TWW not used for irrigation in the leach pond. <i>Impacts:</i> Contamination of surrounding land and surface water from excessive nutrients. Groundwater at the project site is 2 metres below ground level. There are no known groundwater uses in the area. <i>Controls:</i> The City of Karratha will ensure that only TWW that meets the "Guidelines for Non-potable Uses of Recycled Water in Western Australia" is used for irrigation and for various beneficial reuse options. The City of Karratha will also ensure that the irrigation areas are vegetated to assist in the uptake in nutrients.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant</p>	N/A



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Likelihood:</i> Unlikely <i>Risk rating:</i> Low</p> <p><u>Regulatory Controls</u> Targets for emissions to land have been removed from the Licence. This direction is consistent with DER's operational policy regarding targets and trigger levels in Licences and Works Approvals. Based on the previous AER submitted all parameters were within the previous target range, except for Total Nitrogen (TN) which varied from 24mg/L – 44mg/L. It was reported in the AER that the nutrient loading rate limit (Condition 2.2.2) for TN was under 480 kg/ha/yr. The City of Karratha is required to provide to DER monthly monitoring of TWW in the AER. DER will use the report to inform assessment of TWW monitoring and assess whether limits are required on the licence or other regulatory means to ensure an acceptable level of protection for the receiving environment.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk rating:</i> Low</p>	
Fugitive emissions	L2.6.1 & L2.6.2	The previous licence contained conditions for dust management. Fugitive emissions of dust can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> . In accordance with DER's licensing process, no specified conditions for fugitive emissions have been included on this licence.	<i>Environmental Protection Act 1986.S49</i>
Odour	2.7.1	The previous licence contained conditions for odour management. Odour can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> . In accordance with DER's licensing process, no specified conditions for fugitive emissions have been included on this licence.	<i>Environmental Protection Act 1986.S49</i>
Monitoring	L3.2.1	Licence condition 3.2.1 has been updated to include the in situ monitoring	Australian Standard AS/NZS



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
general		of pH. This is consistent with other Licences in the region that require pH sampling, as the holding times cannot be met in regional/rural locations due to a 6 hour holding time.	5667.1 – Water Quality – Sampling – Guidance on the Design of sampling programs, sampling techniques and the preservation and handling of samples.
Information	L4.2.1	Based on the new definition of the annual period, the licensee is now required to submit the AER and associated documents for the period between 1 January - 31 December each year, within the timeframe stipulated in condition 4.2.1	N/A
Licence duration	N/A	The licenced was first issued in December 2013. DER has not reassessed the duration of the licence as part of this amendment.	N/A



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
05/11/2015	Proponent sent a copy of draft instrument	No comments received.	N/A



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