



Licence

Environmental Protection Act 1986, Part V

Licensee: **Water Corporation**

Licence: **L6315/1991/11**

Registered office: 629 Newcastle Street
LEEDERVILLE WA 6007

Premises address: Denmark Wastewater Treatment Plant
33 Hodgson Street
DENMARK WA 6333
Being Lot 965 on Plan 183447 as depicted in Schedule 1

Issue date: Thursday, 20 October 2011

Commencement date: Tuesday, 1 November 2011

Expiry date: Thursday, 31 October 2019

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.	1,200 cubic metres per day.

Conditions

This Licence subject to the conditions set out in the attached pages.

Date signed: 17 March 2016

.....
Caron Goodbourn

A/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 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 regulates 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.



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 Denmark Wastewater Treatment Plant (DWWTP) is located within the Shire of Denmark. The DWWTP is surrounded by native vegetation and is situated about 900 m from the Wilson Inlet estuarine environment. The new wastewater treatment system constructed under W4708/2010/1 consists of the following operations and infrastructure;

- Design treatment capacity of 1,200 m³/ day and peak inflow capacity of 3,000 m³/ day;
- Elevated inlet works with integrated screening and grit removal;
- Dedicated tanker receipt point for sewage;
- Oxidation ditch type treatment plant with a process volume of 1650 m³;
- Secondary clarification tank with a process volume of 475 m³;
- 3 ML balancing pond;
- 50 m³ tertiary filtration system;
- Chemical dosing facilities for sodium hypochlorite (5.6 kL), Liquid magnesium hydroxide (5.36 kL) and alum (15.7 kL);
- Polymer enhanced biosolids waste management via geobag dewatering and stabilisation;
- Operations, switch room and laboratory facilities; and
- Discharge to the infiltration gallery.

Following final treatment wastewater is discharged from the DWWTP to the discharge flume. The discharge flume leaves the DWWTP and enters into the infiltration gallery. The majority of treated wastewater entering the infiltration gallery enters the local drainage channel which discharges to Wilson Inlet about 900 m west of the infiltration gallery. The environment receiving the discharge of treated wastewater is accessible to the public.

This Licence is an amendment of the Licence version issued 5 February 2015. This Licence amendment is for an amendment requested by the Licensee to rename a pond in the licence which was mislabelled and includes administrative amendments



The licences and works approvals issued for the Premises since 19/10/1995 are:

Instrument log		
Instrument	Issued	Description
W1297/1991/1	19/10/1995	New application
L6315/1991/5	04/10/2000	Licence re-issue
L6315/1991/6	10/09/2001	Licence re-issue
L6315/1991/7	10/10/2002	Licence re-issue
L6315/1991/8	06/10/2003	Licence re-issue
L6315/1991/9	21/09/2004	Licence re-issue
L6315/1991/10	09/10/2008	Licence re-issue
W4708/2010/1	28/04/2011	Works approval for upgrade of WWTP
L6315/1991/11	20/10/2011	Licence re-issue
L6315/1991/11	04/04/2014	Licence amendment
L6315/1991/11	08/02/2015	Licence amendment for operation of new WWTP
L6315/1991/11	17/03/2016	Licence amendment

Severance

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

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

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

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

'Act' means the *Environmental Protection Act 1986*;

'AHD' means the Australian height datum;

'annual period' means the inclusive period from 1 July until 30 June in the following year;

'AS/NZS 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 5667.6' 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*;

'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:

Chief Executive Officer
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33
CLOISTERS SQUARE WA 685
Email: info@der.wa.gov.au

'Draft environmental improvement plan' means the document Water Corporation, September 2013, *Denmark WWTP Draft Environmental Improvement Plan*, GHD;

'emission point L1' means the treated wastewater emission point from the Premises authorised under this Licence, being the discharge flume from the effluent final polishing pond as depicted in Schedule 1;

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

'Guidelines for risk assessment of wastewater discharges to waterway' means the document Environment Protection Authority Victoria 2009, *Guidelines for risk assessment of wastewater discharges to waterway*, publication 1287, Government of Victoria;

'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 L6315/1991/11 and issued under the Act;

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

‘malfunction’ means to fail to work or operate correctly and includes the failure or incorrect operation of any part of the wastewater treatment system;

‘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;

‘process equipment’ means any wastewater or sludge containment infrastructure or wastewater treatment vessel;

‘Premises’ means the area defined in the Premises and monitoring locations 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;

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

‘treated wastewater’ means wastewater that has been treated by the ‘wastewater treatment system’;

‘usual working day’ means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

‘wastewater treatment system’ means the system for treating wastewater at the Premises which comprises of the elevated inlet works, inlet screens, oxidation ditch, clarification tank, tertiary filtration system, chemical dosing facilities, hardstand for sludge/ geobag dewatering, balancing and emergency storage pond; 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 in the Licence means the version of that guideline in force from time to time, and shall include any amendments or replacements to that guideline made during the term of this Licence.

1.2 Premises operation

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

1.2.2 The Licensee shall ensure no wastewater gains access to the environment other than treated wastewater discharged from the emission point L1 as depicted in Schedule 1.

1.2.3 The Licensee shall only allow waste to be accepted on to the Premises if:

- (a) it is of a type listed in Table 1.2.1;
- (b) the quantity accepted is below any limit listed in Table 1.2.1; and
- (c) it meets any specification listed in Table 1.2.1.



Table 1.2.1: Waste acceptance

Waste	Quantity Limit	Specification ¹
Sewage – waste from the reticulated sewerage system	None specified	Accepted through sewer inflow(s) only; and/ or Accepted through the tankered waste disposal facility

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

- 1.2.4 The Licensee shall ensure that the wastes accepted onto the Premises are only subjected to the processes set out in Table 1.2.2 and in accordance with any process requirements described in Table 1.2.2.

Table 1.2.2: Waste processing

Waste type	Process	Process requirements
Odorous air	Odour treatment system	Capture and treat all odorous air from the inlet works, tanker receipt facility and bio-selector prior to discharge.
Sewage	Wastewater treatment system	Treatment of sewage waste shall be targeted at or below the treatment capacity of 1,200 m ³ / day and limited below 3,000 m ³ / day
Sewage sludge	Storage	Hardstand enclosed by bunds

- 1.2.5 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.2.3.

Table 1.2.3: Containment infrastructure

Vessel or compound	Material	Requirements
Oxidation ditch	Wastewater	Impervious concrete
Secondary clarification tank	Wastewater	Impervious concrete
Balancing pond (Pond 1)	Wastewater	Clay lined
Emergency storage pond (Pond 2)	Treated wastewater	Clay lined
Hardstand enclosed by bunds	Sewage sludge	A hardstand area enclosed by bunds capable of preventing surface run-off of leachate and sludge and which returns sludge leachate to the IDEA treatment plant.

- 1.2.6 The Licensee shall manage all wastewater storage ponds such that:
- overtopping of the ponds does not occur;
 - 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; and
 - vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.
- 1.2.7 The Licensee shall manage the wastewater treatment vessels such that:
- overtopping of the wastewater treatment vessels does not occur;
 - stormwater runoff is prevented from entering the wastewater treatment vessels;
 - there is no discernible seepage loss from the wastewater treatment vessels; and
 - vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the wastewater treatment vessels.
- 1.2.8 The Licensee shall manage the hardstand for sludge/geobag dewatering such that:
- overtopping of the hardstand for sludge/ geobag dewatering does not occur;
 - stormwater runoff is prevented from entering the hardstand for sludge/ geobag dewatering; and
 - there is no discernible seepage loss from the hardstand for sludge/ geobag dewatering.



2 Emissions

2.1 General

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

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 points to land

Emission point reference	Description	Source including abatement
L1	Discharge from wastewater treatment system via the flume into the Infiltration Gallery	Final Treated wastewater discharge point from wastewater treatment system

- 2.2.2 The Licensee shall not cause or allow point source 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	Annual daily average wastewater discharge	600 m ³ / day annual average	Annual
	Ammonium (NH ₄ -N)	5 mg/L	Spot sample
	<i>Escherichia coli</i>	150 cfu/100 mL	
	pH	6.0 – 9.0 (range)	
	Total aluminium	3 mg/L	
	Total biochemical oxygen demand	20 mg/L	
	Total nitrogen	10 mg/L	
	Total phosphorus	2 mg/L	
	Total suspended solids	30 mg/L	

3 Monitoring

3.1 General monitoring

- 3.1.1 The licensee shall ensure that:
- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
 - all surface water sampling is conducted in accordance with AS/NZS 5667.6;
 - all groundwater sampling is conducted in accordance with AS/NZS 5667.11
 - all microbiological samples are collected and preserved in accordance with AS/NZS 2031; and
 - 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 :
- weekly monitoring is undertaken at least 4 days apart;
 - monthly monitoring is undertaken at least 15 days apart; and
 - quarterly monitoring is undertaken at least 45 days apart.



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

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

Table 3.2.1: Monitoring of emissions to land				
Emission and monitoring point reference and location on map in Schedule 1	Parameter	Units	Averaging Period	Frequency
L1	Volumetric flow rate (cumulative) ¹	L/s m ³ /day	Monthly	Continuous
	pH ¹	-	Spot Sample	Monthly
	Ammonium (NH ₄ -N)	mg/L		
	Filtered aluminium			
	Total aluminium			
	Nitrate + nitrite – nitrogen			
	Total biochemical oxygen demand			
	Total dissolved solids			
	Total nitrogen			
	Total phosphorus			
	Total suspended solids			
	<i>Escherichia coli</i>		cfu/100 mL	

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 3.3.1.

Table 3.3.1: Monitoring of inputs					
Input	Monitoring point reference and location on map in Schedule 1	Parameter	Units	Averaging period	Frequency
Sewage received via sewer inflows to the wastewater treatment system	Wastewater inflow monitoring site (IMS)	Volume	m ³ /day	Monthly	Continuous

3.4 Ambient environmental quality monitoring

- 3.4.1 The Licensee shall undertake the monitoring in Tables 3.4.1 and 3.4.2 according to the specifications in those tables and record and investigate results that do not meet any target specified.



Table 3.4.1: Monitoring of ambient surface water quality

Monitoring point reference and location on map in Schedule 1	Parameter	Units	Averaging period	Frequency
Pierce Street sample point (PSSP); Hodgson Street sample point (HSSP); Inlet Drive sample point (IDSP).	pH ¹	-	Spot sample	Monthly
	Ammonium (NH ₄)	mg/L		
	Nitrate + nitrite – nitrogen			
	Total biochemical oxygen demand			
	Total dissolved solids			
	Total aluminium			
	Total nitrogen			
	Total phosphorus			
	Total suspended solids			
	<i>Escherichia coli</i> (<i>E. coli</i>)			

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

Table 3.4.2: Monitoring of ambient groundwater quality

Monitoring point reference and location on map in Schedule 1	Parameter	Units	Averaging period	Frequency
1/09, 2/09 and 3/09	Standing water level ¹	m(AHD)	Spot sample	Monthly
	pH ²	-		
	Ammonium (NH ₄ -N)	mg/L		
	Nitrate + nitrite – nitrogen			
	Total dissolved solids			
	Total nitrogen			
	Total phosphorus			
	<i>Escherichia coli</i> (<i>E. coli</i>)	cfu/ 100 mL		

Note 1: Standing water level to be taken prior to sampling for water quality

Note 2: In-field non-NATA accredited analysis permitted.

4 Improvements

4.1 Improvement program

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

Table 4.1.1: Improvement program

Improvement reference	Improvement	Date of completion
IR1	<p>The Licensee shall submit to the CEO an Environmental Improvement Plan (EIP) in accordance with the document <i>Guidelines for risk assessment of wastewater discharges to waterways</i>. The EIP shall include:</p> <ol style="list-style-type: none"> 1) The completion of the framework and information detailed within the document Draft environmental improvement plan; 2) An ecological based wastewater discharge risk assessment; 3) A wastewater reuse option assessment and recommendations; and 4) Detail estimated timeframes for works to be engaged to ensure an alternate or additional discharge option is commissioned before the 600 m³/day annual daily average discharge limit is reached. 	29/02/2016



IR2	The Licensee shall ensure that an alternate additional discharge works are commissioned before the 600 m ³ /day annual daily average discharge limit is exceeded.	30/11/2018
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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 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.

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

5.2 Reporting

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

Table 5.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter ²	Format or form ¹
Condition 1.2.4, Table 1.2.2	Summary of any treatment capacity target or limit being exceeded and any action taken.	None specified
Condition 3.1.1	A list of monitoring methods used to collect and analyse monitoring samples required by any condition of this licence.	
Condition 3.1.3 and 3.1.4	Calibration report	
Condition 3.2.1, Table 3.2.1	a) Summary of all monitoring data for emissions to land which shall include: <ul style="list-style-type: none"> i) data in a table format for the annual period; and ii) data in graphical format for trend analysis to include at least the last four years data where available. b) Contaminant load to land for the monitored parameters (except pH and <i>E. coli</i>) as: <ul style="list-style-type: none"> i) kg/ day monthly average; and ii) total annual loading kg/ year. 	
Condition 3.3.1, Table 3.3.1	Summary of all inputs and outputs monitoring data which shall include: <ul style="list-style-type: none"> a) data in a table format for the annual period; and b) comment on annual inflow and outflow volumetric trends. 	



Condition 3.4.1, Table 3.4.1	Summary of all monitoring data for ambient surface water quality which shall include: a) data in a table format for the annual period; b) data in graphical format for trend analysis to include at least the last four years data where available; and c) an assessment of ambient surface water quality monitoring data for impact on surface water quality.	
Condition 3.4.1, Table 3.4.2	Summary of all monitoring data for ambient groundwater quality which shall include: a) data in a table format for the annual period; b) data in graphical format for trend analysis to include at least the last four years data where available; and c) an assessment of ambient groundwater quality monitoring data for the risk and likelihood of seepage from the wastewater treatment system.	
Condition 4.1.1	Summary of actions undertaken and progress to meet the improvement condition requirements for improvement condition references IR1 and IR2.	
5.1.2	Compliance	Annual Audit Compliance Report (AACR)
5.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 2

Note 2: Contaminant loadings shall be calculated using flow monitoring data and parameter monitoring results required by condition 3.5.1.

- 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 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
Table 2.5.2	Limit exceedances	Upon receipt of the monitoring results	7 calendar days	EL1
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties

Note 1: Forms are in Schedule 2

5.3 Notification

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



Table 5.3.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
-	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 or hardstand for sludge/geobag dewatering.	No less than 14 days in advance of works	
-	Breach of any limit specified in the Licence other than those specified under condition 5.2.3 and table 5.2.2	Part A: As soon as practicable but no later than 5pm of the next working day	N1
-		Part B: As soon as practicable	

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

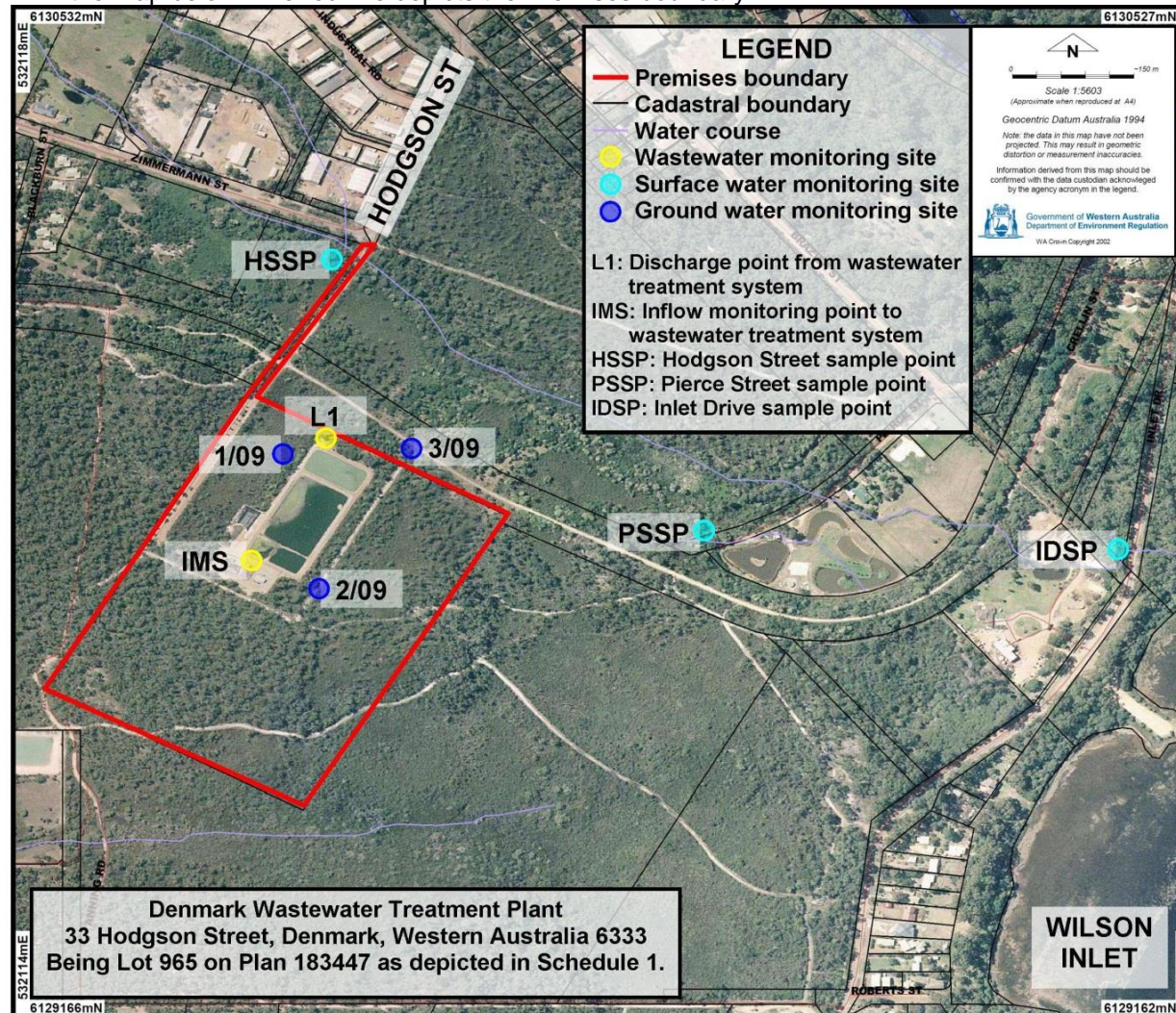
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises and monitoring locations map

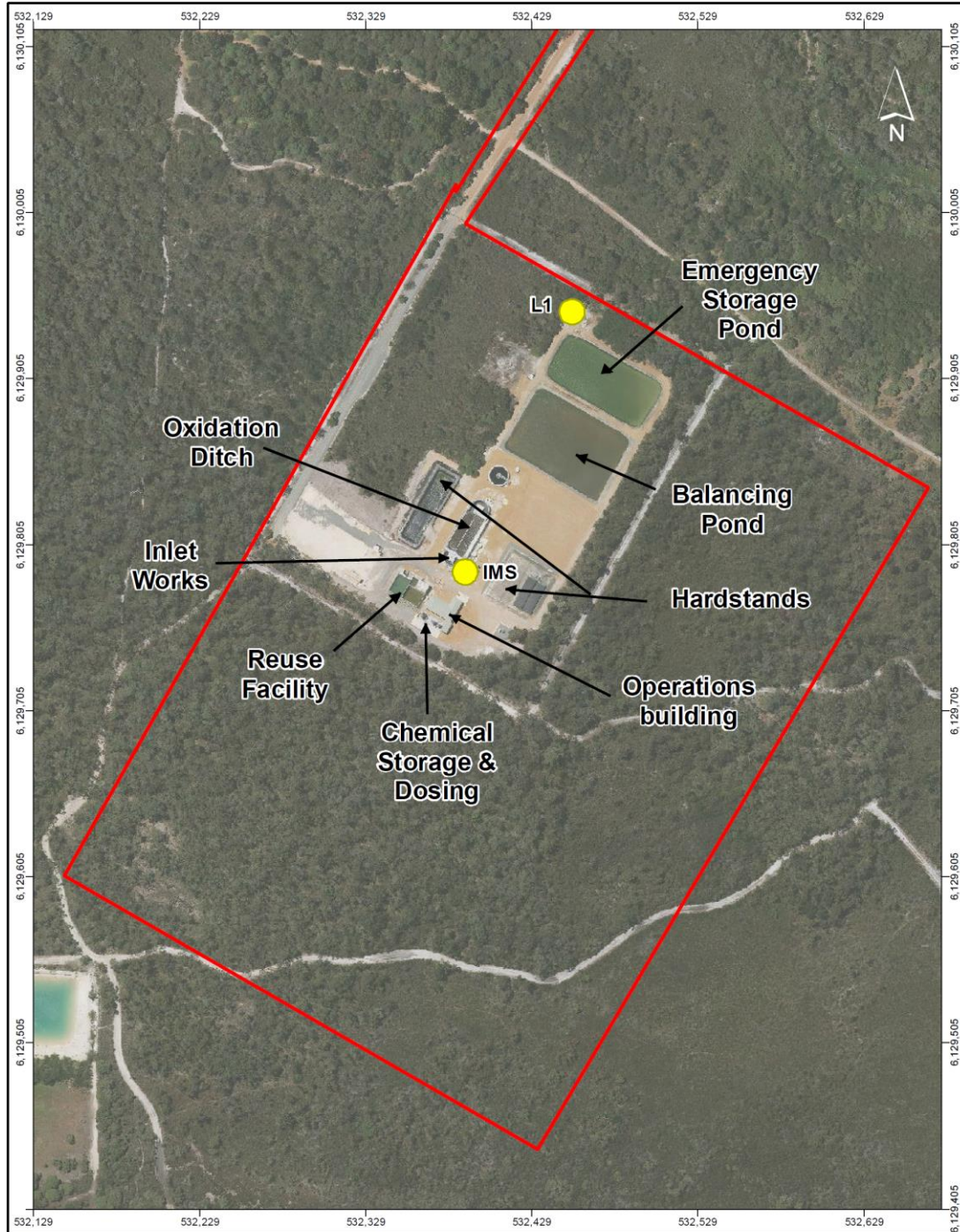
The Premises is shown in the map below. The red line depicts the Premises boundary.





Premises monitoring and storage locations map

The Premises details are shown in the map below. The red line depicts the Premises boundary



LEGEND

- Wastewater monitoring point
- Premises boundary



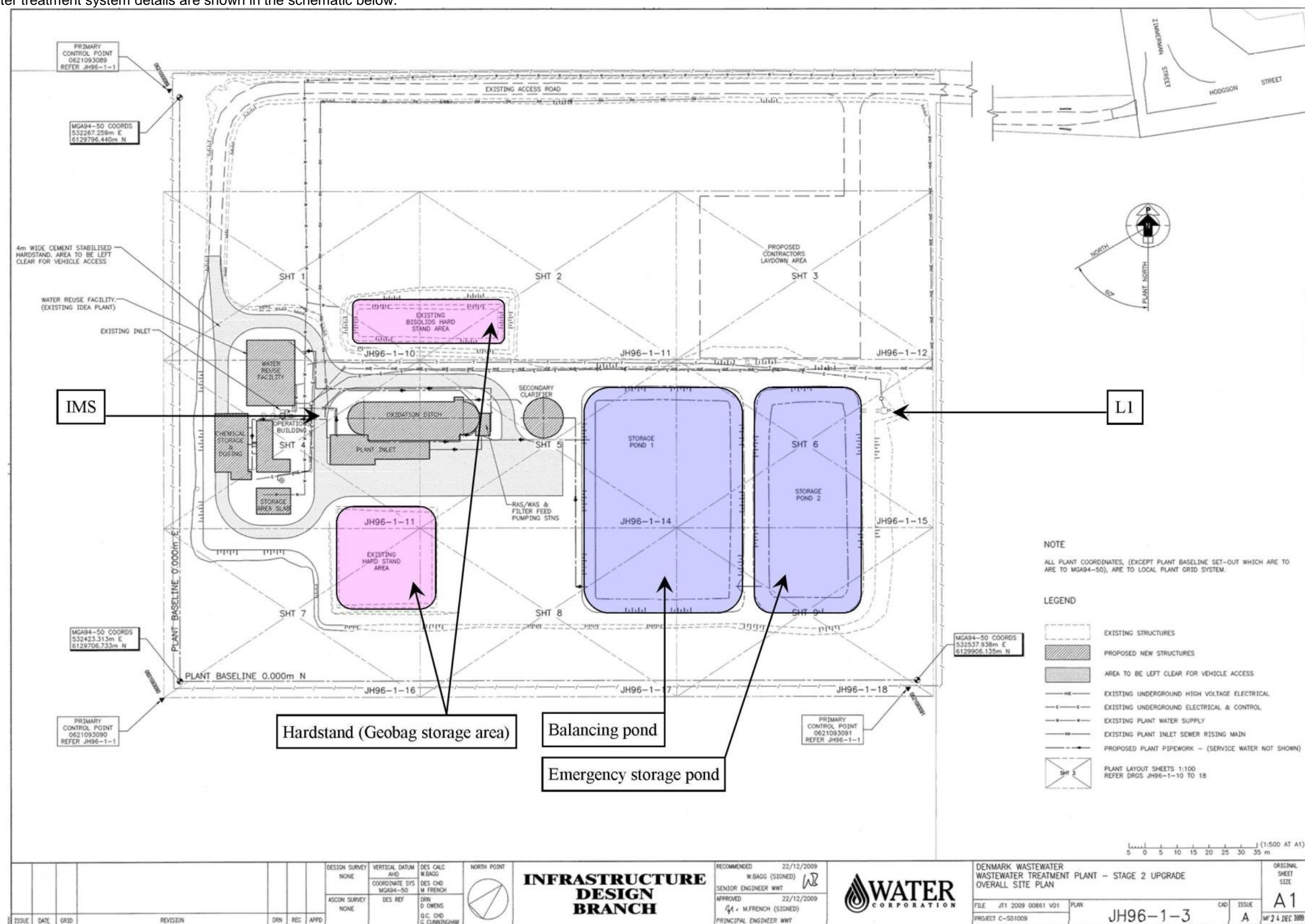
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Vertical Datum: AHD
AUTHOR: ROBERTNO DATE: 1/03/2016
BRANCH: EAAB
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Denmark WWTTP
33 Hodgson St, Denmark
Lot 965 on plan 183447

Premises schematic

The wastewater treatment system details are shown in the schematic 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.

Licence:	L6315/1991/11	Licensee:	Water Corporation
Form:	AACR	Period :	
Name:	Annual Audit Compliance Report		

Annual Audit Compliance Report

Section A: Statement of compliance with Licence conditions

Were all conditions of licence complied with within the annual period?		
Yes	<input type="checkbox"/>	Initial Sections A & B, then proceed to Section C
No	<input type="checkbox"/>	Initial Section A, then 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

a) Licence condition not complied with?	
b) Date(s) b) Date(s) and time(s) the non compliance occurred, if applicable?	
c) Was this non compliance reported to DER?	
<input type="checkbox"/> Yes, and <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 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	

Please use a separate page for each Licence condition that was not complied with. Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



Section C: Signature and certification

This AACR must only be signed by a person(s) with legal authority to sign it as defined 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 AACR must be signed and certified:
an individual	<input type="checkbox"/>	by the individual Licence holder, or
	<input type="checkbox"/>	by a person approved in writing by the Chief Executive Officer (CEO) of DER to sign on the Licensee's behalf.
a corporation	<input type="checkbox"/>	by affixing the common seal of the Licensee in accordance with the Corporations Act 2001; or
	<input type="checkbox"/>	by two directors of the Licensee; or
	<input type="checkbox"/>	by a director and a company secretary of the Licensee, or
	<input type="checkbox"/>	if the Licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	<input type="checkbox"/>	by the principal executive officer of the Licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the Licensee's behalf who is approved in writing by the CEO of DER.
A public authority (other than a local government)	<input type="checkbox"/>	by the principal executive officer of the Licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the Licensee's behalf who is approved in writing by the CEO of DER.
a local government	<input type="checkbox"/>	by the CEO of the Licensee; or
	<input type="checkbox"/>	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 AACR is correct and not false or misleading in a material particular.

Signature:

Name: (printed)

Position:

Date:

Seal (if signing under seal)

Signature:

Name: (printed)

Position:

Date:



Licence: L6315/1991/11
Form: EL1
Name: Limit exceedance

Licensee: Water Corporation
Date of exceedance:

Form EL1: Limit exceedance

Please provide an analysis of the limit exceedances, including but not limited to:

- (a) the emission point and parameter limit/s exceeded;
- (b) the monitoring result value of the limit/s exceeded and previous result trends for the parameter;
- (c) the root cause analysis for any limits exceedances;
- (d) any common or contributory factors including but not limited to flow rates;
- (e) a description of remedial measures taken or planned to be taken, including those taken to prevent recurrence of the exceedances; and
- (f) complaints received that may have been caused by this exceedance.

Signed on behalf of Water Corporation: Date:



Licence: L6315/1991/11
Form: N1

Licensee: Water Corporation
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	Water Corporation
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 Water Corporation	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: **Water Corporation**

Licence: **L6315/1991/11**

Registered office: 629 Newcastle Street
LEEDERVILLE WA 6007

Premises address: Denmark Wastewater Treatment Plant
33 Hodgson Street
DENMARK WA 6333
Being Lot 965 on Plan 183447

Issue date: Thursday, 20 October 2011

Commencement date: Tuesday, 1 November 2011

Expiry date: Thursday, 31 October 2019

Date of Amendment: Thursday, 17 March 2016

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:

Peter van Schoubroeck
Licensing Officer

Decision Document authorised by:

Caron Goodbourn
Delegated Officer



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1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
4 Decision table	4
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6 Risk Assessment	9
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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input 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	1,200 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	Not applicable	
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"/>		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		



3 Executive summary of proposal and assessment

The Denmark Wastewater Treatment Plant (DWWTP) is located within the Shire of Denmark. The DWWTP is surrounded by native vegetation and is situated about 900 m from the Wilson Inlet estuarine environment. The new wastewater treatment system constructed under W4708/2010/1 consists of the following operations and infrastructure;

- Design treatment capacity of 1,200 m³/ day and peak inflow capacity of 3,000 m³/ day;
- Elevated inlet works with integrated screening and grit removal;
- Dedicated tanker receipt point for sewage;
- Oxidation ditch type treatment plant with a process volume of 1650 m³;
- Secondary clarification tank with a process volume of 475 m³;
- 3 ML balancing pond;
- 50 m³ tertiary filtration system;
- Chemical dosing facilities for sodium hypochlorite (5.6 kL), Liquid magnesium hydroxide (5.36 kL) and alum (15.7 kL);
- Polymer enhanced biosolids waste management via geobag dewatering and stabilisation;
- Operations, switch room and laboratory facilities; and
- Discharge to the infiltration gallery.

Following final treatment wastewater is discharged from the DWWTP to the discharge flume. The discharge flume leaves the DWWTP and enters into the infiltration gallery. The majority of treated wastewater entering the infiltration gallery enters the local drainage channel which discharges to Wilson Inlet about 900 m west of the infiltration gallery. The environment receiving the discharge of treated wastewater is accessible to the public.

This Decision Document is for the Licence amendment issued 17 March 2016, replacing the licence version issued 5 February 2015. This Licence amendment is for an amendment requested by the Licensee to rename a pond in the licence which was mislabelled and includes administrative amendments.

No assessment of the risk of emission has been undertaken as part of this amendment except for the risk posed by stormwater and odour emissions.

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
Interpretation	L1.1.2 and L1.1.4	Operation Amendment to Licence conditions include: <ul style="list-style-type: none"> Condition 1.1.2 amended to update contact details for DER and to remove definitions of terms not used in the amended licence. Condition 1.1.4 amended to remove the reference to 'code of practice'; no code of practice is referred to in the licence. 	General provisions of the <i>Environmental Protection Act 1986</i>
General conditions	N/A	Operation Amendment to Licence conditions include: <ul style="list-style-type: none"> Conditions 1.2.1, 1.2.2, 1.2.3, 1.2.4 and 1.2.5 in the previous licence version have been deleted. The conditions are considered redundant. A risk assessment for stormwater management is provided in Appendix A. 	General provisions of the <i>Environmental Protection Act 1986</i>
Premises operation	L1.3.1 and L1.3.5	Operation Amendment to Licence conditions include: <ul style="list-style-type: none"> Condition 1.2.1 (being condition 1.3.1 in the previous licence version) has been amended to remove the reference to 'target'; there are no targets in section 1.2 of the Licence. Condition 1.2.5 (being condition 1.3.5 in the previous licence version) has been amended to rename the containment infrastructure reference from 'Effluent final polishing pond' to 'Emergency storage pond'. All conditions have been renumbered chronologically as required. 	General provisions of the <i>Environmental Protection Act 1986</i>
Emissions general	L2.1.1	Operation Amendment to Licence conditions include: <ul style="list-style-type: none"> Condition 2.1.1 has been amended to remove the reference to 'target'; there are no targets in section 2 of the Licence. Sections 2.2-2.4, 2.6 and 2.8 in the previous licence version have been deleted, there are no specified conditions. All conditions have been renumbered chronologically as required. 	General provisions of the <i>Environmental Protection Act 1986</i>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Odour	N/A	<p>Operation</p> <p><u>Emission description:</u> <i>Emission:</i> Odour may be generated from the acceptance, storage, treatment and disposal of sewage and sludge. An odour modelling study was undertaken as part of the planning for the wastewater treatment system; the modelling indicated a low risk of odour generation at the Premises. <i>Impact:</i> Interference with the health, welfare, convenience, comfort or amenity of sensitive commercial and residential receptors, which are located at and beyond 400 metres from the Premises. <i>Control:</i> A purpose built odour treatment system forms part of the wastewater treatment system. The odour treatment system captures foul air from the inlet works, tanker receipt facility and bio-selector. Air is treated, passes through a carbon filter and is discharged through a stack. Sludge waste is managed through a Geobag system.</p> <p><u>Risk Assessment:</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p> <p><u>Regulatory controls:</u> It is considered that the provisions of Section 49 of the <i>Environmental Protection Act 1986</i> are sufficient to regulate odour emissions. Condition 1.2.4 has been amended to require the odour treatment system to operated to design specifications. Condition 2.7.1 in the previous licence version has been deleted.</p> <p><u>Residual Risk:</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p>	General provisions of the <i>Environmental Protection Act 1986</i>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Monitoring general	N/A	Operation Amendment to Licence conditions include: <ul style="list-style-type: none">• Condition 3.1.3 in the previous licence version has been deleted; the condition is redundant.• Sections 3.2-3.4, 3.7 and 3.9 in the previous licence version have been deleted, there are no specified conditions.• All conditions were renumbered chronologically.	General provisions of the <i>Environmental Protection Act 1986</i>
Information	L5.3.1	Operation Amendment to Licence conditions include: <ul style="list-style-type: none">• Condition 5.1.2 in the previous licence version has been deleted; the condition is redundant.• Condition 5.3.1 has been amended to remove the notification provisions which are covered by Section 72 of the Act.• All conditions were re-referenced and renumbered chronologically.	General provisions of the <i>Environmental Protection Act 1986</i>
Licence Duration	N/A	Operation The amendments undertaken do not require reassessment of the Licence duration. The Licence expires on 31 October 2019.	General provisions of the <i>Environmental Protection Act 1986</i>



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
11/02/2016	Proponent sent a copy of draft instrument	<ul style="list-style-type: none">• Numbering and terminology errors identified.• Clarification requested regarding the removal of redundant conditions requested.	<ul style="list-style-type: none">• Administrative errors rectified, new map inserted.• Clarification provided, removal of redundant conditions maintained.
21/03/2016	Instrument issue was advertised in West Australian		



6 Risk Assessment

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

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High



Appendix A

Premises operation: Emission description (stormwater)

Operation

Emission: The quality of stormwater discharged from the Premises may deteriorate where stormwater is not appropriately managed or comes into contact with contaminants (e.g. hydrocarbons or sewage) or becomes loaded with sediment.

Impact: Stormwater and contaminants leaving the Premises and entering adjacent lands, being native vegetation may potentially impact the ecosystem health. No likely pathways to surface waters have been identified. Some contaminants may have the potential to migrate through soils into the groundwater which could in turn impact native vegetation or discharge to the Wilson Inlet.

Controls: The Applicant has bunds, hardstand and containment infrastructure for all waste and potentially hazardous materials at the Premises.

Risk assessment:

Consequence: Minor

Likelihood: Unlikely

Risk Rating: Moderate

Regulatory controls:

It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* and the provisions of the *Environmental Protection (Unauthorised Discharge) Regulations 2004* are sufficient to regulate the emissions of stormwater during construction.

Condition 1.2.5 in the previous licence version has been deleted.

Residual risk:

Consequence: Minor

Likelihood: Unlikely

Risk Rating: Moderate