



Licence

Environmental Protection Act 1986, Part V

Licensee: Shire of Dundas

Licence: L8658/2012/1

Registered office: 88-92 Prinsep Street
 NORSEMAN WA 6443

Premises address: Norseman Liquid Waste Facility
 Part of Crown Reserve 3476
 Denison Drive
 NORSEMAN WA 6443
 GPS coordinates as depicted in Schedule 1.

Issue date: Thursday, 20 September 2012

Commencement date: Thursday, 20 September 2012

Expiry date: Wednesday, 19 September 2035

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
61	Liquid waste facility: premises on which liquid waste produced on others premises (other than sewage waste) is stored, reprocessed, treated or irrigated.	100 tonnes or more per year	300 tonnes per annual period

Conditions

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

Date signed: 24 November 2016

.....
 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 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

Shire of Dundas currently owns and operates the Norseman Liquid Waste Facility (NLWF), located approximately 5km south south-west (SSW) of the Norseman township. The NLWF is situated within Crown Reserve 3476 (R3476), Denison Drive, Norseman. The reserve also encompasses the already registered (R1491/2003/1) Norseman Waste Management Facility (NWMF). NLWF is entirely fenced and managed by on-site staff based at the NWMF. The closest residential property or business is approximately 2.4km from the NLWF.

Originally R3476 was reserved for the purpose of Sanitary Site and Rubbish Depot and adjacent Reserve 8718 was reserved for the purpose of Rubbish Depot. However in 2010, Reserve 3476 & 8718 were consolidated to become Reserve 3476. The boundary for the Norseman LWF itself within Reserve 3476 is within co-ordinates shown in schedule 1. The disposal area is accessible to controlled waste carriers only. The closest residential property or business is approximately 2.4km from the NLWF.

The Shire of Dundas has operated the NLWF for many years with waste acceptance gradually increasing and since 2008 have exceeded the threshold limit that required a licence under the *Environmental Protection Regulations 1987* (EP Regs). The NLWF is currently designed to receive approximately 300 tonnes of liquid waste per year into its ponds. The construction of these existing unlined ponds was not assessed nor approved through a works approval.

The following activities are carried out at the NLWF:

- Receipt and storage of animal effluent and residues
- Receipt and storage of Food and beverage processing wastes; and
- Receipt and storage of septage waste.

The Shire of Dundas has recently completed upgrading the facility with two concrete lined ponds constructed to the northwest of the existing ponds under works approval W5704/2014/1. One pond will be actively used at a time, while the other will be used as a drying bed. The pond combines aerobic and anaerobic microbiological action reducing the biochemical oxygen demand of the wastewater as well as using evaporation to continually reduce the volume of liquid in the ponds. The aerobic surface layer uses sunlight and atmospheric oxygen to assist microbes to stabilise wastewater in conjunction with a sludge rich base layer where anaerobic decomposition will occur.

A closure plan will be submitted to DER for the two old ponds and they will be decommissioned and capped. This Licence is the result of an amendment sought by the Licensee for the operation of the two liquid waste ponds.

The main potential emissions of concern from the premises are odour, noise and emissions to land from spillages of liquid waste from storing.



As a result of this amendment, the Licence has been converted into DER's new licence template. Administrative changes have also been incorporated in accordance with DER licensing processes.

The licences and works approvals issued for the Premises since 20/09/2012 are:

Instrument log		
Instrument	Issued	Description
L8658/2012/1	20/09/2012	New application
L8658/2012/1	03/10/2013	Licence amended, requiring the Licensee to submit a works approval application for the construction of two liquid waste ponds.
W5704/2014/1	25/10/2014	Works Approval issued for the construction of two concrete liquid waste ponds.
L8658/2012/1	29/04/2016	Licence expiry date amended to 19 September 2035.
L8658/2012/1	24/11/2016	Licence amended to allow for the operation of two liquid waste ponds constructed under works approval W5704/2014/1.

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.

Executive

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 Audit Compliance Report' means a report in a format approved by the CEO as presented by the Licensee or as specified by the CEO from time to time and published on the Department's website;

'annual period' means a 12 month period commencing from 1 July the previous year and ending on 30 June in that year;

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

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

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

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

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence or notification means;

Chief Executive Officer
Department Div.3 Pt.V EP Act
Locked Bag 33 Cloisters Square
Perth WA 6850
info@der.wa.gov.au

'CFU' means colony forming units

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

'Department' means the department established under s.35 of the Public Sector Management Act 1994 and designated as responsible for the administration of Division 3 Part V of the Environmental Protection Act 1986;

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

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



'Landfill Definitions' means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time;

'leachate' means any water (or other liquid) that percolates through a matrix and becomes contaminated by extracting solutes, suspended solids or any other transportable components (e.g. microbes such as *Escherichia coli*) from the matrix (such as a landfill or waste heap or sludge stockpile) through which it has passed;

'Licence' means this Licence numbered L8658/2012/1 and issued under the Act;

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

'liquid waste pond' means the active trench within the premises established for the disposal of controlled wastes, as shown in Attachment 1;

'mg/L' means milligram per litre;

'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;

'Premises' means the area defined in the Premises Map in Schedule 1;

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

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

'sludge' means the accumulated semisolid material from waste deposited in the liquid waste pond;

'Waste Code' means the Waste Code assigned to a type of controlled waste for purposes of waste tracking and reporting as specified in the Department of Environment Regulation "Controlled Waste Category List" (April, 2015), as amended from time to time; and

'Western Australian Guidelines for Biosolids Management' means the document titled 'Western Australian Guidelines for Biosolids Management' published by the Department of Environment and Conservation, and dated December 2012.

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 version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 General conditions

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

1.3 Premises operation

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

1.3.2 The Licensee shall only accept waste on to the Premises if:



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

Table 1.2.1: Waste acceptance			
Waste type	Waste Code	Quantity Limit	Specification¹
Liquid waste – animal effluent and residues	K100 ²	Combined total of no more than 300 tonnes per annual period	Accepted through control waste septage trucks
Liquid waste - septage waste	K210 ²		
Liquid waste – food and beverage waste	K200 ²		

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

Note 2: New Controlled Waste category group and waste code

1.3.3 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.3.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.

1.3.4 The Licensee shall ensure that 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 1.2.2: Waste processing		
Waste type	Process	Process limits
Liquid waste – all types specified in Table 1.2.1	Receipt, handling and storage prior to off-site disposal	<ol style="list-style-type: none"> 1. All liquid waste to be collected and stored within the concrete liquid waste storage ponds; and 2. The pH of the waste is maintained between 6.5-8.5 pH units.

1.3.5 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
Concrete storage ponds	Liquid waste	<ol style="list-style-type: none"> 1. Concrete construction; 2. Maintained in an impervious condition; and 3. A minimum top of embankment freeboard of 500 mm is maintained.

1.3.6 The Licensee shall manage the liquid waste pond such that:

- (a) overtopping of the pond does not occur; and
- (b) the integrity of the containment infrastructure is maintained.

1.3.7 The Licensee shall implement the following security measures at the site:

- (a) erect and maintain suitable fencing to prevent unauthorised access to the site;
- (b) ensure that any entrance gates to the premises are securely locked when the premises are unattended; and
- (c) undertake regular inspections of all security measures and repair damage as soon as practicable.

1.3.8 The Licensee shall implement control measures to prevent infestations of pests, flies and vermin at the Premises.

1.3.9 The licensee shall conduct monthly inspections of the treatment ponds for excessive build-up of sludge and to take action as necessary for de-sludging.



- 1.3.10 The Licensee shall ensure that biosolids and dry sludge removed from the ponds:
- (a) is managed in accordance with the Western Australian Guidelines for Biosolids Management; or
 - (b) where disposed of the landfill, meets the acceptance criteria for the relevant class of landfill as outlined in the Landfill Definitions.

2 Monitoring

2.1 General monitoring

- 2.1.1 The licensee shall ensure that:
- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
 - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
 - (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.

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

2.1.2 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.

2.2 Monitoring of inputs and outputs

2.2.1 The Licensee shall undertake the monitoring in Table 2.2.1 according to the specifications in that table.

Table 2.2.1: Monitoring of inputs and outputs				
Input/Output	Parameter	Units	Averaging period	Frequency
Waste input	Liquid wastes: All liquid wastes as specified in Table 1.2.1	tonnes	Annual	Each load arriving at the Premises
Waste outputs	Liquid wastes: All liquid wastes as specified in Table 1.2.1			Each load leaving or rejected from the Premises

2.3 Ambient environmental quality monitoring

2.3.1 The Licensee shall undertake the monitoring in Table 2.3.1 according to the specifications in that table.



Table 2.3.1: Monitoring of ambient groundwater quality				
Monitoring point reference	Parameter	Units	Averaging period	Frequency
Wastewater within the liquid waste pond	Oil and Grease	mg/L	Spot sample	Biannually (in November and May)
Groundwater monitoring bores: GWMB1; GWMB2; GWMB3; and GWMB4	pH ¹	-		
	Total Suspended Solids	mg/L		
	Total Nitrogen	mg/L		
	Total Phosphorus	mg/L		
	Total dissolved solids	mg/L		
	Aluminium	mg/L		
	Arsenic	mg/L		
	Cadmium	mg/L		
	Copper	mg/L		
	Chromium	mg/L		
	Nickel	mg/L		
	Zinc	mg/L		
	Manganese	mg/L		
<i>E.coli</i>	cfu/100mL			

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

3 Information

3.1 Records

- 3.1.1 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 3.1.1(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.

3.1.2 The Licensee must submit to the CEO by 1 September each year, an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the Conditions in this Licence for the Annual Period.

3.1.2 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.

3.2 Reporting

3.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 1 September each year after the end of the annual period. The report shall contain the information listed in Table 3.2.1 in the format or form specified in that table.



Table 3.2.1: 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
1.3.3	A summary of waste rejected during the Annual period	
1.3.9	Measures taken to control pests, flies and vermin	
Table 2.2.1	Summary of inputs and outputs and any related monitoring data	
Table 2.3.1	Monitoring of ambient groundwater quality	None specified
3.1.3	Complaints summary	

Note 1: Forms are in Schedule 2

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

3.3 Notification

3.3.1 The Licensee shall ensure that the parameters listed in Table 3.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 3.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
1.3.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
2.1.2	Where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements	As soon as practicable	None specified
-	Removal of sludge from the treatment pond	14 days prior to the removal of liquid waste sludge.	None specified
-	Taking a treatment pond offline for maintenance work	72 hours prior to taking a treatment pond offline	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 red line depicts the Premises boundary.

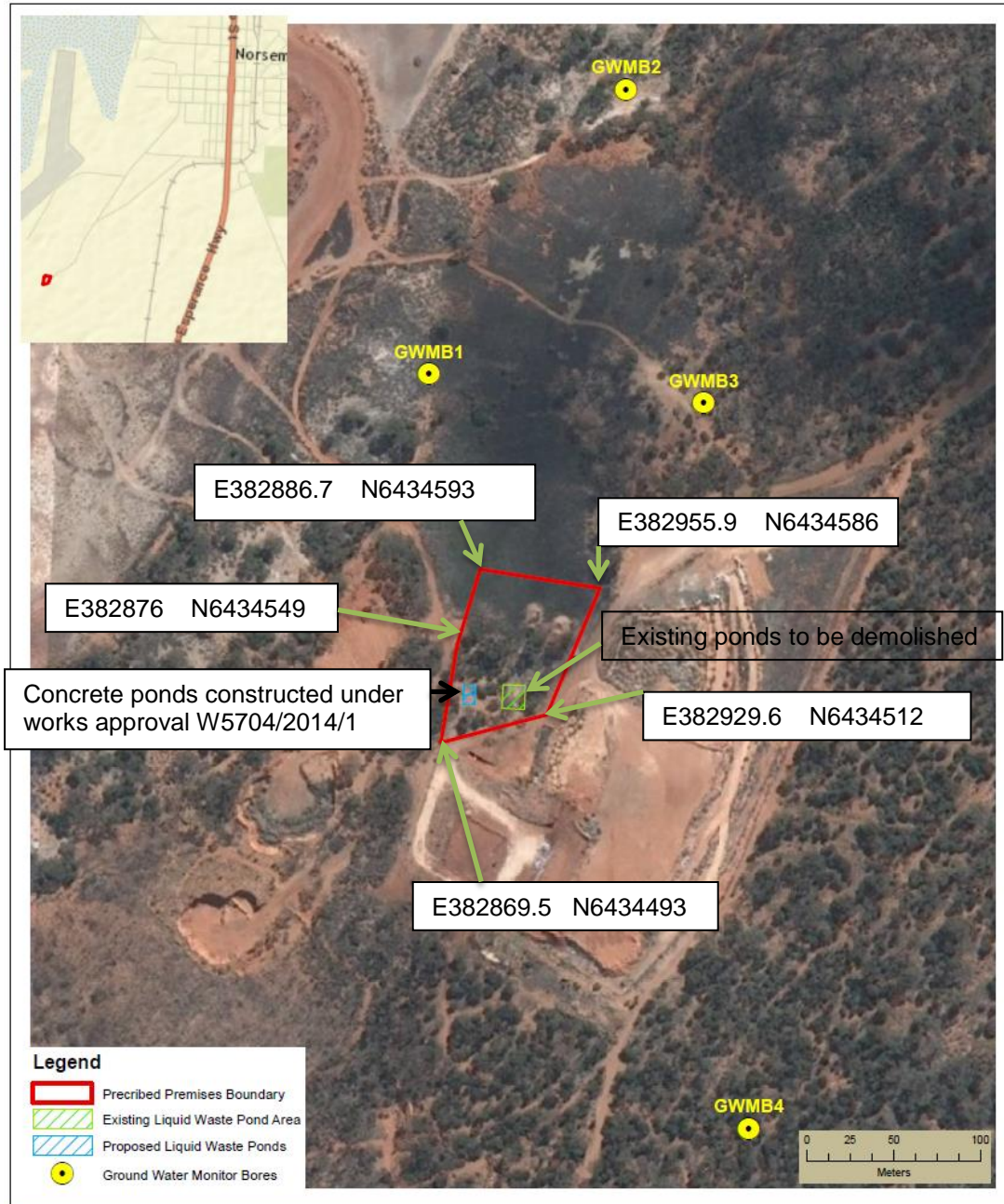


FIGURE 1 - Norseman Liquid Waste Facility



SERS
Site Environmental and Remediation Services

Head Office: 281 Newcastle Street Northbridge WA 6003
Postal: PO Box 377 Northbridge Perth WA 6865
T: +61 8 92202000 F: +61 8 92202010
E: admin@sers.net.au W: www.sers.net.au

Job No: Norseman Liquid Waste Facility
Client: Shire of Dundaas
Address: Norseman Liquid Waste Facility

Scale: 1:3,000
Original size: A4
Imagery from: -
Source: -

Date drawn: 04/12/13
Revision: 0
Drawn by: H.C.
Checked by: A.R.



© This plan must not be reproduced without the permission of SERS

File: N:\A\SERS\GIS\Projects\Norseman\MXD\Figure 1



Licence: L8658/2012/1
 Form: N1

Licensee: Shire of Dundas
 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 Shire of Dundas	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Shire of Dundas

Licence: L8658/2012/1

Registered office: 88-92 Prinsep Street
NORSEMAN WA 6443

Premises address: Norseman Liquid Waste Facility
Part of Crown Reserve 3476
Denison Drive
NORSEMAN WA 6443

Issue date: Thursday, 20 September 2012

Commencement date: Thursday, 20 September 2012

Expiry date: Wednesday, 19 September 2035

Decision

Based on the assessment detailed in this document, the Delegated Officer has decided to issue an amended licence. The Delegated Officer considers that in reaching this decision, all relevant considerations have been taken into account.

Decision Document prepared by: Abnesh Chetty
Licensing Officer

Decision Document authorised by: Steve Checker
Delegated Officer



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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
	61	300 tonnes per annual period
Application verified	Date: N/A	
Application fee paid	Date :N/A	
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"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/>	Referral decision No:
		Managed under Part V <input type="checkbox"/>
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"/>	Assessed under Part IV <input type="checkbox"/>
		Ministerial statement No:
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input checked="" type="checkbox"/>	EPA Report No:
		No <input type="checkbox"/>
Premises is located with Environmental Protection South West Agriculture Zone Wetlands Policy 1998	Yes <input type="checkbox"/>	Department of Water consulted Yes <input type="checkbox"/> No <input checked="" 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

Shire of Dundas currently owns and operates the Norseman Liquid Waste Facility (NLWF), located approximately 5km south south-west (SSW) of the Norseman township. The NLWF is situated within Crown Reserve 3476 (R3476), Denison Drive, Norseman. The reserve also encompasses the already registered (R1491/2003/1) Norseman Waste Management Facility (NWMF). NLWF is entirely fenced and managed by on-site staff based at the NWMF.

Originally R3476 was reserved for the purpose of Sanitary Site and Rubbish Depot and adjacent Reserve 8718 was reserved for the purpose of Rubbish Depot. However on the 20th of May 2010 Reserve 3476 & 8718 were consolidated to become Reserve 3476. The boundary for the Norseman LWF itself within Reserve 3476 is within co-ordinates shown in schedule 1. The disposal area is accessible to controlled waste carriers only. The closest residential property or business is approximately 2.4km from the NLWF.

The Shires facility currently consists of a single liquid waste pond which is located on the south west side of the NLWF. Liquid waste is accepted from local Norseman businesses and the current LW pond is the only treatment pond available in Norseman. The Shire of Dundas has operated the NLWF for many years with waste acceptance gradually increasing and since 2008 have exceeded the threshold limit that required a licence under the *Environmental Protection Regulations 1987* (EP Regs). The construction of these existing unlined ponds was not assessed nor approved through a works approval. The NLWF is currently designed to receive approximately 300 tonnes of liquid waste per year into its ponds.

The following activities are carried out at the NLWF:

- Receipt and storage of animal effluent and residues;
- Receipt and storage of Food and beverage processing wastes; and
- Receipt and storage of septage waste.

The Shire of Dundas has recently completed upgrading the facility with two concrete lined ponds constructed to the northwest of the existing ponds under works approval W5704/2014/1. One pond will be actively used at a time, while the other will be used as a drying bed. The pond combines aerobic and anaerobic microbiological action reducing the biochemical oxygen demand of the wastewater as well as using evaporation to continually reduce the volume of liquid in the ponds. The aerobic surface layer uses sunlight and atmospheric oxygen to assist microbes to stabilise wastewater in conjunction with a sludge rich base layer where anaerobic decomposition will occur.

A closure plan will be submitted to DER for the two old ponds and they will be decommissioned and capped. This Licence is the result of an amendment sought by the Licensee for the operation of the two liquid waste ponds.

This Decision Document is based on an assessment of the applicant's application to operate the two newly constructed liquid waste ponds. This assessment has been undertaken for a design capacity of 300 tonnes per year for the liquid waste facility.

Background

The following information in relation to the site has been summarised from the application:

- Liquid Waste (LW) is brought to the facility on a sporadic basis and in different volumes (i.e. there is no fixed delivery schedule);
- The Site is located within a palaeochannel comprising alluvium, calcrete and fractured rock;
- Groundwater is inferred to flow to a north-westerly direction from the Site;



- Depth to groundwater is likely to be greater than 10 metres below ground level;
- The groundwater is hyper saline, therefore is unsuitable for drinking and agricultural purposes;
- The soil at the Site is a heavy loam and therefore has a naturally low permeability;
- The mean annual rainfall in Norseman is 288.4mm and the mean annual evaporation rate is 1535mm per year;
- There are no Environmentally Sensitive Areas (ESAs) within the areas surrounding the Site and there are no Public Drinking Water Source Areas, RAMSAR Wetlands or sites of Aboriginal significance nearby;
- There are 4 groundwater bores encompassing the Site;
- The closest residential or commercial property is approximately 2.4km from the NLWF;
- There are no permanent natural watercourse or wetlands located within the liquid waste facility; and
- Reserve 3476 has limited vegetation surrounded by degraded woodlands from past mining activities with no known threatened fauna and flora.

Occupation and planning approval

The Premises is currently occupied by the Applicant. The facility is located within the Shire of Dundas Town Planning Scheme area No. 2.

Email received from the Shire of Dundas Works Manager on 20 October 2016 advised DER that planning approval for the construction of the ponds were not required.

Potential emissions

The main potential emissions of concern from the facility will be odour and emissions to land from spillages of liquid waste from storing. It is anticipated that these emissions can be adequately managed under the provisions of the *Environmental Protection Act 1986* and mitigation measures put in place by the Licensee.

As a result of this amendment, the Licence has been converted into DER'S new licence template. Administrative changes have also been incorporated in accordance with DER protocol.

Further details of emissions and regulatory controls for the proposed amendment are detailed within section 4 of the Decision Table.



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
Front page	N/A	The Licence expiry date was amended on 29 April 2016 to 19 September 2035 in line with DER's Guidance Statement, Licence Duration November 2014 (revised May 2015). The expiry date has been updated accordingly.	DER's Guidance Statement, Licence Duration November 2014 (revised May 2015).
Introduction	N/A	Table of contents updated. Administrative changes have been included within the Licence amendment process in accordance with DER protocol. Premises description and Licence summary section updated. Instrument log table updated.	N/A
Interpretation	L1.1.1	Definitions updated. Administrative changes have been included within the Licence amendment process in accordance with DER protocol.	N/A
General conditions	L1.2.1	Licence Condition 1.2.1 has been added to the Licence to recover, remove or dispose spills of waste outside an engineered containment system.	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
			<p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p> <p><i>DER's Guidance Statement: Regulatory Principles</i></p> <p><i>DER's Guidance Statement: Setting Conditions</i></p> <p><i>DER's Guidance Statement: Licence and works approval process</i></p>
Premises operation	L1.3.2 – L1.3.7	<p>Licence condition 1.3.1 has been added to the Licence to ensure that the Licensee records and investigates the exceedance of any limits in the Licence.</p> <p>Previous licence condition 1, now 1.3.2 details wastes permitted to be received onsite.</p> <p>Previous licence condition 2, now 1.3.2 ensures that only 300 tonnes of liquid waste can be accepted into the liquid waste pond in any annual period as per the design capacity.</p> <p>Licence condition 1.3.3 has been added to the Licence to ensure that any waste that does not meet the requirements of 1.3.2 is stored in a quarantined storage area and removed to an appropriately authorised facility as soon as practicable.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p> <p><i>DER's Guidance Statement: Land use planning</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>Licence condition 1.3.4 has been added to the licence to ensure that liquid wastes are directed to the evaporation/storage ponds onsite. The Delegated Officer has retained the previous licence requirement that “the pH of the waste is maintained between 6.5-8.5 pH units” as this range will accommodate the aerobic and anaerobic biological processes within the ponds as per the design specifications.</p> <p>Condition 1.3.5 has been added to the Licence to outline the performance and design specifications of the liquid waste storage ponds.</p> <p>Previous Licence condition 5, now 1.3.6(a) ensures that overtopping of liquid waste pond does not occur as per the design specifications of the ponds. Licence condition 1.3.6(b) has been added to the licence to ensure the integrity of the containment infrastructure is maintained.</p> <p>Previous licence condition 3, now 1.3.7 (a-c) requires appropriate security measures such as erecting and maintaining suitable fencing, ensuring entrance gates to the premises are securely locked when the premises are unattended and undertaking regular inspections of all security measures and repairing damage as soon as practicable.</p> <p>Condition 1.3.8 has been added to the Licence to ensure that the Licensee implements control measures to prevent infestations of pests, flies and vermin at the premises.</p> <p>Previous Licence condition 6(i) now 1.3.9 requires the Licensee to conduct monthly inspections of the treatment ponds for excessive build-up of sludge and to take action as necessary for de-sludging.</p> <p>Previous licence condition 7 which related to the temporary storage of the sludge in</p>	<p>DER’s <i>Guidance Statement: Regulatory Principles</i></p> <p>DER’s <i>Guidance Statement: Setting Conditions</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>a hardstand area has been removed. Due to the sporadic basis in which liquid waste is delivered to the NLWF only one pond will be in active use at any one time, whilst the other pond will be used as a drying bed for stored waste. Once drying has been completed the dried material will be tested, removed and disposed of to an approved landfill. Previous Licence condition was worded as follows: <i>“Where liquid waste sludge is temporarily stored on the premises, direct sludge to a hardstand area which:</i></p> <ul style="list-style-type: none"> <i>(i) Is adequately surrounded by bunds to effectively contain all leachate and sludge; and</i> <i>(ii) Is designed to return all sludge leachate from the storage area back to the liquid waste pond.</i> <p>Previous Licence condition 8, now 1.3.10 ensures that all biosolids and/or partly treated waste water sludge are managed in accordance with the Western Australian Guidelines for Biosolids Management. The Delegated Officer has also included an option for the disposal of this material to landfill as this is considered a likely eventuality.</p>	
Odour	L2.7	<p><u>Emission Description</u> <i>Emission:</i> Odour from liquid waste accepted and stored at the premises. <i>Impact:</i> Nuisance impacts in the vicinity. The nearest residential property is located approximately 2.4km from the site. <i>Controls:</i> Site is in an isolated location with adequate buffer provided to the nearest residents. No complaints relating to the activities carried out on site has ever been received by the Shire of Dundas.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Possible <i>Risk:</i> Low</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p>DER's <i>Guidance Statement: Regulatory Principles</i></p> <p>DER's <i>Guidance Statement: Setting Conditions</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><u>Regulatory Controls</u> Previous Licence Condition 4 which stated “<i>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</i>” has not been included in the amended licence. The Delegated Officer noted that DER has no record of odour complaints from the liquid waste facility. The Delegated Officer considered that separation to receptors and general onsite housekeeping is expected to mitigate any odour issues. As the risk from odour has been determined as ‘Low’, previous condition 4 has not been included in the amended licence. The Delegated Officer considers that impacts from emissions from dust can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>.</p> <p>Current condition 3.1.3 requires the licensee to record and investigate any complaints received concerning the environmental impact of the activities undertaken at the Premises. DER will review this information to determine the ongoing effectiveness of controls.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Rare <i>Risk:</i> Low</p>	DER’s <i>Guidance Statement: Land Use Planning</i>
Monitoring	2.1-2.3	<p>Previous licence conditions 10 and 11, now 2.1.1 (a-d) ensures that sampling is conducted in accordance with the methodology outlined in the appropriate Australian Standard for groundwater, wastewater and microbiological sampling. Previous Licence condition 11, now 2.1.1 (e) requires for all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.</p> <p>Licence condition 2.1.2 has been added to the Licence to ensure that all monitoring equipment used on the Premises Licence is calibrated in accordance with the</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p>DER’s <i>Guidance Statement: Setting Conditions</i></p> <p>DER’s <i>Guidance</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>manufacturer's specifications.</p> <p>Licence condition 2.1.3 has been added to the Licence which requires the Licensee to notify CEO where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements.</p>	<i>Statement: Regulatory Principles</i>
	2.2 & Table 2.1.1	Licence condition 2.2 (Table 2.2.1) has been added to the Licence to ensure accurate recording of all liquid waste received at the premises. Table 2.1.1 updated which now also requires the Licensee to record all liquid waste rejected from the premises.	General provisions of the <i>Environmental Protection Act 1986</i>
	2.3 & Table 2.3.1	Previous Licence condition 9 now 2.3 (Table 2.3.1) requires the monitoring of the ambient groundwater. The Delegated Officer has continued these requirements to monitor the impacts of the historical disposal of wastewater in the previous non-imperious ponds which may take significant time to show up in groundwater.	<i>DER's Guidance Statement: Setting Conditions</i> <i>DER's Guidance Statement: Regulatory Principles</i>
Information	L3.1 to L3.3	<p>Licence condition 3.1.1 ensures all records required by the Licence are retained and be made available to the CEO.</p> <p>Previous Licence condition 14, now 3.1.2 relating to the Annual Audit Compliance Report (AACR) has been updated to reflect that the AACR submission is now a standalone requirement and that the AACR template is now available on DER's website.</p> <p>Licence condition 3.1.3 has been added to the licence which requires the Licensee to implement a complaints management system. The Delegated officer considers it necessary to implement this condition as the performance of the new ponds is untested.</p>	General provisions of the <i>Environmental Protection Act 1986</i> <i>DER's Guidance Statement: Setting Conditions</i> <i>DER's Guidance Statement: Regulatory Principles</i>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>Previous Licence condition 13, now 3.2.1 outlines the requirement to submit to DER an annual environmental report (AER).</p> <p>Previous Licence Condition 5.3, now 3.3 requires notification to the CEO, when there is a breach of any limit specified in the Licence, when there is a failure or malfunction of any pollution control equipment, when sludge will be removed from the sewage treatment pond and where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements.</p> <p>Previous Licence condition 12 which required the Licensee to submit a works approval application for the construction of a minimum of two ponds and the closure and rehabilitation of the existing pond has been removed as it related to issues which are now addressed under the current licence amendment. The two concrete lined ponds were built under works approval W5704/2014/1. The condition was worded as follows: <i>“ The licensee shall, by 1 January 2014, submit a works approval application for the construction of a minimum of two new ponds and the closure and rehabilitation of the existing liquid waste pond, which includes but is not limited to the following;</i></p> <ul style="list-style-type: none"> <i>i. the details for the design and location of a new pond system and a sludge-drying hardstand, considering the recommendations within Water Quality Protection Note 39;</i> <i>ii. determination of the liner/s, considering the recommendations within Water Quality Protection Note 26 and Water Quality Protection Note 27;</i> <i>iii. determination of the volume of proposed ponds (allowing adequate freeboard and justified by a water balance which considers all inputs into and outputs from the pond);</i> <i>iv. timeliness for completion of the construction of the new pond system and sludge drying hardstand, and the closure and rehabilitation of the liquid waste pond and already decommissioned ponds;</i> 	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>v. <i>an assessment of the environmental risks during both construction and operation of the new pond system and all management and/or monitoring proposed to address those risks; and</i></p> <p>vi. <i>proposed groundwater sampling and analysis program (SAP). The SAP shall be prepared in accordance with the Department of Environmental Protection guideline: Development of Sampling and Analysis Programs (December, 2001)</i></p>	
Licence Duration	N/A	The licence was amended on 29/04/2016 to extend the expiry date until 24/08/30 in line with DER's Guidance Statement, Licence Duration November 2014 (revised May 2015). No further change of this date is proposed as part of this amendment.	DER's <i>Guidance Statement, Licence Duration November 2014</i> (revised May 2015).



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
21/10/2016	Proponent sent a copy of draft instrument.	No comments received, waiver form was signed and returned to DER on 22/11/2016.	Amended licence issued.



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 B

Emission Description - Leakage and contaminated runoff risk assessment

Emission Risk Assessment - Operation

Emission: Potential emissions include stormwater contaminated with pathogens, grease and oil may enter the environment from the overflow of the concrete ponds.

Impact: Contamination of surrounding land and surface water drainage systems. Potential impacts on the surrounding environment from the addition of pathogens, grease and oil.

Controls: Based on the information provided in the application the Shire claims that the soil is a heavy loam with low permeability. A permeability assessment of the soil has not been carried out to date. Additional engineering controls such as constructing concrete ponds with approved liners for the storage and treatment of waste water will mitigate the risk of seepage. The proposed concrete ponds will also be designed to have a free board level of 500mm. This will help prevent any overflow of wastewater out of the ponds. The application details that the proponent will undertake regular inspections on the condition and integrity of the ponds.

Risk Assessment

Consequence: Minor

Likelihood: Rare

Risk Rating: Low

Regulatory Controls

The Delegated Officer considers it necessary to condition infrastructure design and performance specifications to ensure that the risk of seepage and runoff remain 'Low'.

Condition 1.3.5, ensures that all waste is stored within suitable containment infrastructure onsite. It also requires that all ponds achieve are maintained in an impervious condition as per the design specifications.

Condition 1.3.5 also ensures that the ponds maintain a 500mm freeboard in accordance with the design specifications.

Condition 1.3.6 (a) requires the Licensee to manage the liquid waste pond such that overtopping of the pond does not occur.

Licence Condition 1.3.6 (b) requires the Licensee to ensure the integrity of the containment infrastructure is maintained.

Condition 1.3.9 requires the Licensee to conduct monthly inspections of the treatment ponds for excessive build-up of sludge and to take action as necessary for de-sludging top prevent any overloading.

Residual Risk

Consequence: Minor

Likelihood: Rare

Risk Rating: Low