



Licence

Environmental Protection Act 1986, Part V

Licensee: Treasury Wine Estates Vintners Limited

Licence: L7727/2001/8

Registered office: 58 Queensbridge Street
 Southbank VIC 3006

ACN: 004 094 599

Premises address: Devil's Lair Winery
 Morris Road
 FOREST GROVE WA 6286
 Being Lot 1631 on Plan 201647 as depicted in Schedule 1

Issue date: Thursday, 10 December 2015

Commencement date: Saturday, 12 December 2015

Expiry date: Friday, 11 December 2020

Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
25	Alcoholic beverage manufacturing: premises on which an alcoholic beverage is manufactured and from which liquid waste is or is to be discharged onto land or into water.	350 kilolitres or more per year	3,500 kL per annual period

Conditions

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

Date signed: 10 December 2015

.....
 Jonathan Bailes
 Manager Licensing (Process 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

Devil's Lair Winery (Devil's Lair) is located approximately 17 km south-east of Margaret River, in the Shire of Augusta Margaret River. Devil's Lair was first licensed as an alcoholic beverage manufacturing operation in 1990 and has a maximum crush capacity of 5000 tonnes per year of grapes. Treasury Wine Estates Vintners Limited has been operating the winery since it was acquired from Southcorp Wines Pty Ltd by the then named Foster's Wine Estates Limited in 2005.

The winery is zoned for rural land use and the surrounding land for at least 2 km is primarily cleared for grazing. The nearest sensitive receiver is a residence located 200 m from the Premises. Groundwater at the Premises is located at a depth of approximately 25 m below ground level. The premises comprises vineyards, a wine processing facility, a wastewater treatment system, a water storage dam, and remnant vegetation.

The main discharge from the Premises is treated wastewater that is irrigated to land. Approximately 15 kL/day of wastewater comprising washdown water, product spillage, and potentially contaminated surface runoff is treated via the premises wastewater treatment plant (WWTP). The system comprises a continuously fed rotary screen and a Sequencing Batch Reactor (SBR). From the SBR wastewater is directed to a series of three aerated lagoons for further treatment by natural facultative action before irrigation to land.

Treated wastewater is abstracted from the lagoons and discharged through high rate drip irrigation to a 2.28 ha area of established trees. Currently, only 1.6ha of the tree lot is irrigated. Irrigation volumes are typically less than 15,000 ML per annual period. Irrigation is managed to ensure quality requirements are met and the capacity of the irrigation field is not exceeded. Water from the lagoons is retreated through the SBR if quality requirements are not met. The facultative lagoons have the storage capacity to enable the licensee to store wastewater and target irrigation during times of high potential evapotranspiration (typically October to February). The wastewater treatment plant (WWTP) is designed to ensure irrigation to land does not exceed nutrient loading rates of 300 kg/ha per year for nitrogen, 50 kg/ha per year for phosphorous, and 30 kg/ha per day for BOD.

Sludge from the wastewater treatment process is gravity fed from the SBR to an adjacent sludge tank where it thickens from approximately 0.6% to 1.4% solids content. Sludge is added to marc for composting at the solid waste storage and composting area. Compost is either used on site or taken offsite for lawful reuse or disposal. The design of the existing solid waste storage and the composting area was not able to comply with requirements for containment of contained waste and leachate. Therefore, the licensee has decided to construct a new solid waste storage and the composting area in closer proximity to the winery and WWTP.

This Licence is the successor to licence L7727/12001/7 and includes changes to conditions consistent with the current DER licence format. The licensee has also made an application for a licence amendment to authorise the construction of the new solid waste storage and composting area and conditions authorising the works have been included in the licence.



The licences and works approvals issued for the Premises since 06/12/12 are:

Instrument log		
Instrument	Issued	Description
L7727/2001/7	06/12/2012	Licence reissue
L7727/2001/7	12/06/2014	Licence amendment to new licence template
L7727/2001/8	10/12/2015	Licence reissue including amendments to construct a new solid waste storage and composting area

Severance

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

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

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

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

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

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

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

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

'averaging period' means the time over which a limit is measured or a monitoring result is obtained;

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

'CEO' for the purpose of correspondence means:

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

'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 1×10^{-9} metres/second or less;

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

'lees' means the material which accumulates in the bottom of grape juice or wine fermentation tanks;

'Licence' means this Licence numbered L7727/2001/8 and issued under the Act;

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

'marc' means grape material (mainly skin, pulp and seeds) which is left over after grape crushing and pressing;

'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 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;

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

'vintage' means the period of time during which the first and last grapes of the season are received for crushing; and

'mS/cm' means millisiemens per centimetre.

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 Premises operation

1.2.1 The Licensee shall ensure that all wastewaters from alcoholic beverage manufacturing operations including wash down water, by-products wastewater and contaminated run-off are directed to a wastewater treatment system.

1.2.2 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.1.



Table 1.2.1: Containment infrastructure		
Storage vessel or compound	Material	Infrastructure requirements
Wastewater treatment plant (WWTP)	Wastewater from the rotating screen or east, west or south lagoons	Sequencing Batch Reactor
Sludge tank	Wastewater treatment sludge	Enclosed impermeable storage tank
East lagoon West lagoon South lagoon	Wastewater from the WWTP (or runoff from the solid waste storage area during significant rainfalls)	Clay lined to achieve a permeability of less than 1×10^{-9} m/s
Solid waste storage and composting area	Marc, lees, wastewater treatment sludge, compost and other organic solid wastes	A bunded hardstand area which is capable of preventing surface runoff of leachate and with a drainage system that can return leachate back to the waste water treatment plant

1.2.3 The Licensee shall ensure that where wastes produced on the Premises are not taken off-site for lawful use or disposal, they are managed in accordance with the requirements in Table 1.2.2.

Table 1.3.2: Management of Waste		
Waste type	Disposal strategy	Operational requirements
Treated wastewater	Irrigation	In accordance with a Nutrient Irrigation Management Plan
Marc, lees, wastewater treatment sludge and other organic solid wastes	Composting	Composted prior to spreading on land for use as a soil conditioner and/or export the material offsite for reuse or disposal.
Compost	On-site application to land	Composted waste shall be disposed of evenly on the vineyards and shall not be applied to land within 50 m from any defined watercourse, wetland or external property boundary.

1.2.4 The Licensee shall manage the wastewater treatment plant (WWTP) and wastewater storage lagoons such that:

- (a) overtopping of the WWTP and storage lagoons does not occur;
- (b) a freeboard at or greater than 300mm is maintained;
- (c) the integrity of the containment infrastructure is maintained;
- (d) stormwater runoff is prevented from entering the WWTP and storage lagoons;
- (e) there is no discernible leakage loss from the WWTP or storage ponds; and
- (f) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond , inner pond embankments or accumulating in the WWTP.

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 it is done so in accordance with the conditions of this licence.

Table 2.2.1: Emissions to land			
Emission point reference	Emission point reference on Premises map	Description	Source including abatement
L1	Irrigation area	Drip irrigation to a 1.6ha woodlot	Winery wastewater treated via the wastewater treatment system

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

Table 2.2.2: Emission limits to land			
Emission point reference	Parameter	Limit (including units)	Averaging period
L1	Load of total nitrogen	300 kg/ha/yr	Annually
	Load of total phosphorus	50 kg/ha/yr	Annually
	Load of BOD	30 kg/ha/day	Monthly
	pH	5.5 to 8.5	Spot sample

3 Monitoring

3.1 General monitoring

3.1.1 The licensee shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and
- (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.

3.1.2 The Licensee shall ensure that monthly monitoring is undertaken at least 15 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.



Table 3.2.1: Monitoring of emissions to land					
Emission point reference	Monitoring point reference	Parameter	Units	Averaging Period	Frequency
L1	M1 – Outflow from wastewater treatment system to irrigation	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous
		pH	-	Spot sample	Monthly while irrigating
		Electrical conductivity	mSc/m		
		Total nitrogen	mg/L		
		Total phosphorus			
		Total dissolved solids			
		Total suspended solids			
		BOD			

4 Information

4.1 Records

- 4.1.1 All information and records required by the Licence shall:
- be legible;
 - if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - except for records listed in 4.1.1(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
 - for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - off-site environmental effects; or
 - matters which affect the condition of the land or waters.
- 4.1.2 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.
- 4.1.3 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.

4.2 Reporting

- 4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 30 September after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.



Table 4.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
-	Quantity of composted marc applied to the premises, including the application rate in M ³ /ha	None specified
Table 3.2.1	Monitoring of emissions to land	LR1
	Volume of treated wastewater discharged to land	None specified
	Contaminant loading to land of parameters (total annual loading kg/ha/yr for nitrogen and phosphorus, average daily loading kg/ha/day for BOD).	
4.1.3	Compliance	Annual Audit Compliance Report (AACR)
4.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

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

4.2.3 The Licensee shall submit the information in Table 4.2.2 to the CEO according to the specifications in that table.

Table 4.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form¹
3.2.1	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

4.3 Notification

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

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
2.2.2	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
3.1.4	Calibration report	As soon as practicable.	None specified

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

Note 2: Forms are in Schedule 2



5 Works

5.1 Works Approval

5.1.1 The Licensee shall construct the works in accordance with the documentation detailed in Table 5.1.1:

Document	Parts	Date of Document
Devil's Lair Winery Licence Amendment Application Form L7727, Rev B, sent via email and received on 3 November 2015	All including Drawings and Attachments	3 November 2015

Note 1: Where the details and commitments of the documents listed in condition 5.1.1 are inconsistent with any other condition of this licence, the conditions of the licence shall prevail.

5.1.2 The Licensee shall submit a compliance document to the CEO, following the construction of the works.

5.1.3 The compliance document shall:

- (a) certify that the works were constructed in accordance with the conditions of this licence; and
- (b) be signed by a person authorised to represent the Licensee and contain the printed name and position of that person within the company.



Schedule 1: Maps

Premises map

The Premises is shown in the map below. The red line depicts the Premises boundary. The location of the containment infrastructure specified in Table 1.2.1 and the emission point defined in Table 2.2.1 are included in the map.





Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

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

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

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

Yes Please proceed to Section C

No Please proceed to Section B

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

Initial:



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

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

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

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

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

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

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

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

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

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

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (If signing under seal)



Licence: L7727/2001/8
Form: LR1
Name: Monitoring of emissions to land

Licensee: Treasury Wine Estates Vintners Limited
Period:

Form LR1: Monitoring of emissions to land						
Emission point	Parameter	Result	Units	Averaging Periods	Method	Sample date & times
L1	pH		-	Spot sample		
	Electrical Conductivity		mS/cm			
	Total Nitrogen		mg/L			
	Total Phosphorus		mg/L			
	Total Dissolved Solids		mg/L			
	Total Suspended Solids		mg/L			
	BOD		mg/L			

Signed on behalf of Treasury Wine Estates Vintners Limited: Date:



Licence: L7727/2001/8
Limited
Form: N1

Licensee: Treasury Wine Estates Vintners

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 Treasury Wine Estates Vintners	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Treasury Wine Estates Vintners Limited

Licence: L7727/2001/8

Registered office: 58 Queensbridge Street
Southbank VIC 3006

ACN: 004 094 599

Premises address: Devil's Lair Winery
Morris Road
FOREST GROVE WA 6286
Being Lot 1631 on Plan 201647

Issue date: Thursday, 10 December 2015

Commencement date: Saturday, 12 December 2015

Expiry date: Friday, 11 December 2020

Decision

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

Decision Document prepared by: Amine Callegari
Licensing Officer

Decision Document authorised by: Jonathan Bailes
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 checked="" type="checkbox"/> Licence amendment <input type="checkbox"/> Works Approval amendment <input type="checkbox"/>								
Activities that cause the premises to become prescribed premises	<table border="1"> <thead> <tr> <th>Category number(s)</th> <th>Assessed design capacity</th> </tr> </thead> <tbody> <tr> <td>25: Alcoholic beverage manufacturing</td> <td>3,500 kilolitres per annual period</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Category number(s)	Assessed design capacity	25: Alcoholic beverage manufacturing	3,500 kilolitres per annual period				
	Category number(s)	Assessed design capacity							
	25: Alcoholic beverage manufacturing	3,500 kilolitres per annual period							
Application verified	Date: 8 October 2015								
Application fee paid	Date: 9 November 2015								
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>								
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>								
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Commercial-in-confidence claim outcome	N/A								
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>								
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ministerial statement No: EPA Report No:								
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								



3 Executive summary of proposal and assessment

Devil's Lair Winery (Devil's Lair) is located approximately 17 km south-east of Margaret River, in the Shire of Augusta Margaret River. Devil's Lair was first licensed as an alcoholic beverage manufacturing operation in 1990 and has a maximum crush capacity of 5000 tonnes per year of grapes. Treasury Wine Estates Vintners Limited has been operating the winery since it was acquired from Southcorp Wines Pty Ltd by the then named Foster's Wine Estates Limited in 2005.

The winery is zoned for rural land use and the surrounding land for at least 2 km is primarily cleared for grazing. The nearest sensitive receiver is a residence located 200 m from the Premises. Groundwater at the Premises is located at a depth of approximately 25 m below ground level. The premises comprises vineyards, a wine processing facility, a wastewater treatment system, a water storage dam, and remnant vegetation.

The main discharge from the Premises is treated wastewater which is irrigated to land. Approximately 15 kL/day of wastewater comprising washdown water, product spillage, and potentially contaminated surface runoff is treated via the premises wastewater treatment plant (WWTP). The system comprises a continuously fed rotary screen and a Sequencing Batch Reactor (SBR). From the SBR wastewater is directed to a series of three aerated lagoons for further treatment by natural facultative action prior to irrigation to land.

Treated wastewater is abstracted from the lagoons and discharged through high rate drip irrigation to a 2.28 ha area of established trees. Currently only 1.6ha of the treelot is irrigated. Irrigation volumes are typically less than 15,000 ML per annual period. Irrigation is managed to ensure quality requirements are met and the capacity of the irrigation field is not exceeded. Water from the lagoons is retreated through the SBR if quality requirements are not met. The facultative lagoons have storage capacity to enable the licensee to store wastewater and target irrigation during times of high potential evapotranspiration (typically October to February). The wastewater treatment plant (WWTP) is designed to ensure irrigation to land does not exceed nutrient loading rates of 300 kg/ha per year for nitrogen, 50 kg/ha per year for phosphorous, and 30 kg/ha per day for BOD.

Sludge from the wastewater treatment process is gravity fed from the SBR to an adjacent sludge tank where it thickens from approximately 0.6% to 1.4% solids content. Sludge is added to marc for composting at the solid waste storage and composting area. Compost is either used on site or taken offsite for lawful reuse or disposal. The design of the existing solid waste storage and composting area was not able to comply with requirements for containment of contained waste and leachate therefore the licensee has decided to construct a new solid waste storage and composting area in closer proximity to the winery and WWTP.

This Licence is the successor to Licence L7727/12001/7 and includes changes to conditions consistent with the current DER licence template. Changes have been described in this decision document. The licensee has also made an application for a licence amendment to authorise construction of the new solid waste storage and composting area. DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed as a result of the proposed amendment in this decision document.



4 Decision table

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

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation	L1.2.1 – 1.2.4 L5.1.1 – 5.2.3	<p><u>Emission Description</u></p> <p><i>Emission:</i> Discharge of contaminated wastewater, partially treated wastewater or organic wastes from the alcoholic beverage manufacturing process to the surrounding environment from the winery, WWTP or solid waste storage and composting area. Stormwater contaminated with potentially elevated levels of nitrogen, phosphorous, suspended solids, reduced pH and elevated biological oxygen demand as a result of contact with wine production residues.</p> <p><i>Impact:</i> Contamination of surrounding land and surface water drainage systems. Potential impacts on ecology of surface water from the addition of nutrients and suspended solids. The nearest surface water feature is the on-site water storage dam located immediately south and east of the winery which supplies water for irrigation of the vineyards. The water storage dam was constructed over a natural waterway. The dam has the potential to overflow into the Blackwood River during the winter months. There are no other sensitive receivers in close proximity to the premises.</p> <p><i>Controls:</i> Wine making activities are conducted in a concrete hardstand area which drains all wastewater and stormwater to the WWTP via a rotary screen to remove solid wastes. The premises also has a solid waste storage and composting facility however the design and construction of the existing facility are not able to comply with requirements for the containment of waste, leachate and stormwater. The licensee has therefore decided to construct a new solid waste storage and composting area which will comprise a concrete bunded area designed to contain solid wastes and generated leachate. The facility will also contain stormwater for up to a 1 in 10 year 3 to 6 hour duration rainfall event. It is designed to pump collected stormwater and leachate back to the WWTP for treatment. In more significant rainfall events excess stormwater from</p>	<p>Application supporting documentation</p> <p>L7727/2001/7 Environmental Assessment Report, 2012</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>the facility will be collected and discharged via a pipeline to the west wastewater storage lagoon located immediately south of the facility. Therefore all potentially contaminated stormwater from the new solid waste storage and composting area will be collected and discharged to either the WWTP or the wastewater storage lagoon for treatment and will not be released to the environment. Uncontaminated stormwater is diverted away from the wine processing plant and wastewater treatment system via bunding. The uncontaminated water is diverted to the on-site storage dam for use in vineyard irrigation. Diverting uncontaminated water away from the processing area and wastewater treatment system assists in reducing the hydraulic load on the WWTP to ensure the system maintains optimal performance.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Conditions 1.2.1 to L1.2.4 which specify collection, containment and management requirements for solid and liquid wastes have been retained in the reissued licence. Condition 1.2.1 requires all wastewaters to be directed to a treatment system to ensure they are treated prior to discharge. Condition 1.2.2 specifies containment infrastructure where solid and liquid wastes produced on the premises are able to be stored to ensure appropriate infrastructure is used to contain the specified wastes. The south lagoon, WWTP and sludge tank have been added to this condition. Condition 1.2.3 specifies management requirements for wastes which are produced on site and require on site disposal or discharge. Previous conditions L1.3.4 and L1.3.5 have been combined into a single condition (L1.2.4) to remove repetition from the licence. The condition establishes minimum management criteria for the WWTP to ensure it is managed in a manner that reduces</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>the risk of release to the environment, overloading and damage to the system.</p> <p><u>Residual Risk</u> <i>Consequence</i>: Insignificant <i>Likelihood</i>: Unlikely <i>Risk Rating</i>: Low</p> <p>DER's assessment and decision making for Works conditions 5.1.1 – 5.1.3 relating to construction of the new solid waste storage and composting facility are detailed in Appendix A.</p>	
Emissions general	L2.1.1	The licence contains limits for discharges to land through condition 2.2.2 therefore condition 2.1.1 is included on the licence requiring recording and investigation of exceedances.	N/A
Emissions to land including monitoring	L2.2.1-L2.2.2 L3.2.1	DER's assessment and decision making for emissions to land and monitoring are detailed in Appendix A.	<p>Application supporting documentation</p> <p>W4871/2011/1 Environmental Assessment Report, 2011</p>
Fugitive emissions	N/A	Previous Licence L7727/2001/7 did not contain conditions relating to fugitive emissions as they have previously been assessed as low risk. DER has considered whether the risk profile of fugitive emissions from the premises has significantly changed since the previous licence was granted and, as no significant changes have occurred, has determined that conditions relating to fugitive emissions are not required in the licence. The licensee is required to comply with the general provisions of the <i>Environmental Protection Act 1986</i> .	<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	Previous Licence L7727/2001/7 did not contain conditions relating to odour as it has previously been assessed as low risk. DER has not received any complaints regarding odour associated with the premises since the issue of the previous licence. DER has considered whether the risk profile of odour from the premises has significantly changed since the previous licence was granted and, as no significant changes have occurred, has determined that conditions relating to odour are not required in the licence. The licensee is required to comply with the general provisions of the <i>Environmental Protection Act 1986</i> .	<i>Environmental Protection Act 1986</i>
Noise	N/A	Licence L7727/2001/7 did not contain any specific noise conditions as it has previously been assessed as low risk. DER has not received any complaints regarding noise associated with the premises since the issue of the previous licence. DER has considered whether the risk profile of noise from the premises has significantly changed since the previous licence was granted and, as no significant changes have occurred, has determined that conditions relating to noise are not required in the licence. Noise emissions are regulated under the <i>Environmental Protection (Noise) Regulations 1997</i> .	<i>Environmental Protection Act 1986</i> <i>Environmental Protection (Noise) Regulations 1997</i> .
Monitoring general	L3.1.1-L3.1.4	Discharge to land monitoring is included in the licence therefore , general monitoring conditions relating to collection, preservation and testing of samples (3.1.1), monitoring intervals (3.1.2) and monitoring equipment calibration requirements (3.1.3-3.1.4) have been retained in the reissued licence.	N/A
Information	L4.1.1 – L4.1.3 L4.2.1 – L4.2.3 L4.3.1	Records Conditions 4.1.1 – 4.1.3 have been retained in this section of the reissued licence. The conditions specify record keeping requirements for the premises. Reporting Annual reporting requirements have been retained in conditions 4.2.1 and 4.2.2 of the licence. As all water samples are required to be sent to a laboratory for analysis, condition 4.2.3 has also been included in the licence requiring the submission of original reports on request in order to confirm reported monitoring results if required.	Application supporting documentation <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
		Notification Notification requirements have been retained in condition 4.3.1 of the licence to ensure that the CEO is notified of any limit exceedances within the specified timeframe. Condition 2.2.2 specifies the relevant limits for emissions to land. Condition 4.3.1 has been amended to remove notification requirements in the event of failure or malfunction of pollution control equipment or environmental incidents, as this replicated the requirements of section 72 of the Act.	
Licence Duration	N/A	The overall environmental risk of this premises is categorised as moderate. The licence has been granted for a period of five years.	DER Guidance Statement: <i>Licence duration Part V Environmental Protection Act 1986, May 2015</i>



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
16/11/2015	Application advertised in West Australian (or other relevant newspaper)	None received	N/A
30/11/2015	Proponent sent a copy of draft instrument and decision document	Proponent advised they had no comments on the draft instrument and decision document.	N/A



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

Proposed Construction of a new Solid Waste Storage Area

The winery produces less than 1000 tonnes per year of marc, lees and wastewater treatment sludges during the wine making and wastewater treatment processes. These wastes are currently disposed to an existing earthen solid waste storage and composting area approximately 750 m south east of the WWTP. The design and construction of the existing facility do not meet the infrastructure requirements for containment of waste, leachate and stormwater. Therefore the licensee has decided to construct a new solid waste storage and composting area in closer proximity to the winery and WWTP. The existing solid waste storage area will be rehabilitated.

The new solid waste storage and composting area will comprise a 720m², 125mm thick N32 grade reinforced concrete impermeable slab. This grade concrete has been chosen as it allows for regular truck and front end loader access on the area for disposal and turning of solid waste as part of the composting process. It also provides resistance against acid attack as leachate from the stored waste is likely to be naturally acidic. The concrete slab will be back sloped toward a leachate collection pit and have bunding up to 350mm high to allow for containment of up to 19,000L of stormwater and leachate in addition to the maximum expected volume of solid waste being stored. This equates to storage for a 1 in 10 year rainfall event of 3 to 6 hours duration.

The solid waste storage and composting area will include a 0.7m³ leachate collection pit to capture leachate and stormwater for transfer to the WWTP via pumping. The licensee proposes to install a 1.25 L/sec pump for transferring leachate and stormwater from the collection pit to the WWTP. The leachate pit will include an overflow which will transfer excess stormwater to the west lagoon via a DN100 pipeline during more extreme rainfall events (greater than a 1 in 10 year event). The east and west wastewater storage lagoons are located immediately south of the solid waste storage and composting facility. The lagoons are a suitable discharge location for potentially contaminated stormwater from the solid waste storage and composting facility because they are part of the WWTP. Testing of wastewater in the lagoons is undertaken prior to irrigation to ensure it meets internal discharge criteria. If the discharge criteria are exceeded water is circulated back to the WWTP for retreatment.

Establishment of the new solid waste storage area will introduce an additional nutrient load to the WWTP. The biochemical treatment capacity of the plant will therefore need to be increased by up to 40% to ensure effective treatment of wastewater. Increased biochemical treatment capacity will be achieved by increasing the aeration capacity of the plant through installation of a side channel blower to force feed the aerators. With this improvement, the plant will be capable of handling the increased hydraulic load associated with the additional leachate and stormwater from the solid waste storage and composting area.

Emissions and discharges associated with the solid waste storage and composting facility are described in the relevant sections of the decision table.

To authorise the works described above and ensure the works are undertaken as described in the amendment application, condition L5.1.1 has been included in the licence to specify the construction requirements for the solids waste storage and composting area. Conditions L5.1.2 and L5.1.3 have also been included in the licence to ensure the licensee provides verification that the facility has been constructed as described in the application through submission of a compliance document following construction of the works.

Emissions to land including monitoring

The principal emission of concern from the Devil's Lair winery is emissions to land and surface water via irrigation of treated wastewater which potentially has elevated nutrient levels. Groundwater is predicted to be at least 25 m below the surface at the irrigation area and is therefore not expected to be impacted by irrigation.

Emission Description

Emission: Irrigation of treated wastewater to a 1.6 ha wooded native tree lot on the premises (note: the total area of the tree lot is 2.28 ha however irrigation only occurs to 1.6 ha of the area).



Impact: Discharge of treated wastewater with potentially elevated nutrient levels to land via irrigation which may result in excessive nutrient loading of the land or eutrophication of surface water systems due to runoff. The premises water storage dam is located 200m east and down slope of the irrigation area. There is a 1:10 fall from the irrigation area to the dam however there is also a 3% cross fall from the centre of the irrigation area toward the escarpment to assist in minimising runoff. The storage dam has the potential to overflow into the Blackwood River in winter.

Controls: Wastewater from the winery is collected and treated through a wastewater treatment plant (WWTP) comprising a rotary screen, sequencing batch reactor (SBR) and three aerated lagoons. The lagoons are used for storage over the winter months so that treated water can be irrigated predominantly during the summer months (October to February) when plant uptake and evaporation are highest. Aeration of the lagoons allows for further treatment of the stored wastewater by natural facultative action. Treated wastewater from the lagoons is tested prior to irrigation to ensure it meets in-house discharge criteria. Water not meeting the discharge criteria is returned to the SBR for further treatment. Irrigation occurs via surface irrigation pipelines with drippers. The drippers are designed to ensure the disposal capacity of the system remains below 10 L/s to maintain balanced disposal across the irrigation area and minimise the risk of runoff. Irrigation is undertaken in accordance with a Nutrient Irrigation Management Plan (2010). A review of the reported discharges to land via irrigation has been undertaken for the past four annual reporting periods. There have been no exceedances of the specified emission to land limits for the irrigation area in this time period and nutrient loads have remained well within the specified limits.

Risk Assessment

Consequence: Minor

Likelihood: Unlikely

Risk Rating: Moderate

Regulatory Controls

The irrigation area at Devil's Lair has been previously classified as risk category C in accordance with the Department of Water, *Water Quality Protection Note 22: Irrigation with Nutrient-Rich Wastewater*. This was based on the determination that the soil is loamy sand with a phosphorus buffer index (PBI) of 150, and poses a significant eutrophication risk for the 500ML storage dam located 200m to the east of the irrigation area. In accordance with the assessed risk category, loading limits have been retained in condition L2.2.2 of the reissued licence and the authorised irrigation area has been defined in condition L2.2.1. Condition L3.2.1 has also been retained in the reissued licence to specify monitoring requirements for the quality and quantity of wastewater discharged to the irrigation area in order to enable loading rates to be calculated to confirm compliance with the limits in L2.2.2. Ambient groundwater monitoring is not required for this premises as the depth to groundwater in the vicinity of the irrigation area (more than 25 m) makes it unlikely that groundwater will be impacted by the irrigation.

The licensee has previously submitted a Nutrient Irrigation Management Plan (2010) to DER. As there has been no significant changes to irrigation management since the development of the plan, and it continues to be implemented by the licensee, the requirement to conduct irrigation in accordance with the plan has been retained in condition 1.2.3 of the reissued licence.

Residual Risk

Consequence: Insignificant

Likelihood: Rare

Risk Rating: Low