Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L2883/2025/1
Licence holder	Passchendaele Ridge Pty Ltd
ACN	085 067 394
Registered business address	C/- DFK Gooding Partners Chartered Accountants Level 9, 1 William Street, Perth, WA 6000
Duration	06/08/2025 to 07/08/2045
Date of issue	06/08//2025
Premises details	Forest Hill Winery 1564 South Coast Highway Legal description - LOT 421 ON DEPOSITED PLAN 230727

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production capacity**
Category 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 waters	<350 kL per annual period of wine produced

This licence is granted to the licence holder, subject to the attached conditions, on 6 August 2025, by:

Caron Goodbourn Digitally signed by Caron Goodbourn
Date: 2025.08.06 13:26:37 +08'00'

MANAGER, PROCESS INDUSTRIES

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
06/08/2025	L2883/2025/1	Licence granted.

Interpretation

In this licence:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(a) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(b) where tables are used in a condition, each row in a table constitutes a separate condition;

(c) any reference to an Australian or other standard, guideline, or code of practice in this licence:

(i) if dated, refers to that particular version; and

(ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(d) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(e) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

Works - construction

1. The licence holder must construct the infrastructure listed in Table 1 in accordance with the requirements set out in that table

Table 1. Works

No.	Infrastructure	Design and construction / installation requirements	Infrastructure location – Schedule 1	Completion date
1.	Bottling facility on existing hardstand area including a canopy and insulated panel walls	a) Must be installed on the existing hardstand area where all wastewater or spillages are directed via impervious pipes or drains to the Wastewater. Treatment System (WWTS). b) Must be installed under cover, with panel walls.	Depicted in Figure 2, Schedule 1 as: Bottling line	30 December 2027
2.	2 x 50kL Poly tanks for wastewater storage	a) Both tanks must be connected via an impervious pipeline to each other and to the 23kL Treated Water Tank. b) Tanks must have a high-level alarm installed. c) A wastewater collection tap to be installed on the outlet of the irrigation tank to enable representative samples to be collected.	Depicted in Figure 1, Schedule 1 as: WWTS	30 December 2026
3.	Stormwater diversion valve	a) A stormwater diversion valve is to be installed along the main drainage line, before the WWTS. b) The diversion valve must have the ability to direct stormwater away from the WWTS to the HDPE lined dam.	Depicted in Figure 1, Schedule 1 as: HDPE lined dam	30 December 2027

2. The licence holder must, within 30 calendar days of the infrastructure items required by condition 1 being installed:

(a) undertake an audit of their compliance with the requirements of condition 1; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:

(a) certification by a person authorised to represent the licence holder that each item of infrastructure or component thereof, as specified in condition 1, have been installed in accordance with the relevant requirements.

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1, Table 1.

(c) Photographs of the installed infrastructure.

(d) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person.

Production Limit

4. The licence holder must ensure that the production limits listed in Table 2 are not exceeded in an annual period:

Table 2: Production limits

Product or waste		Production Limit (kL)
1	Wine manufactured and processed[1]	<350 per annual period

Note 1: This limit includes any processing done for third parties.

Infrastructure and equipment

5. The licence holder must ensure that the site infrastructure and equipment listed in Table 3 is maintained and operated in accordance with the corresponding operational requirements in that table.

Table 3. Infrastructure and equipment requirements

	Infrastructure and equipment	**Operational requirement**	**Infrastructure location**
Winery Building and Barrel Hall			
1.	**Winery building** consisting of: Fermentation tanks Barrel Hall De-stemmer Crusher Press Cross flow filter **Outside concrete hardstand area** (existing) on which the **bottling line** will be installed	a) All plant and equipment used for the production and bottling of wine (excluding water tanks) must be situated upon a hardstand. b) Outside concrete hardstand areas used to store, produce or bottle wine must be graded to ensure wastewater is directed towards drains that divert all wastewater to the WWTS. c) Outside concrete hardstand areas referred to in b) must be bunded in such a way as to divert stormwater flows away from accessing drainage to the WWTS. d) Drains must be kept free of solids to ensure the free flow of wastewater to the WWTS.	Depicted in Figure 1, Schedule 1 as: Winery and Barrel Hall, Bottling line
Wastewater Treatment System (WWTS)			
2.	**Wastewater treatment system** consisting of: 2 x 27kL concrete aeration tanks situated on hardstand surface, with spill containment system; and the following situated upon bare earth: Rotary screen fitted over	a) Rotary screen must have a maximum aperture of 5mm. b) All tanks, and interconnecting pipes must be kept in good working order and routinely visually inspected for any seepage or leakage of wastewater c) All water from the WWTS irrigated to LAA1 must pass through the flowmeter (FM1).	Depicted in Figure 1, Schedule 1 as: Wastewater treatment system

	Infrastructure and equipment	Operational requirement	Infrastructure location
	a solids collection bin 15kL pH EQ Tank 2 x gravity Settling Tanks 23kL Treated Water Tank 2 x 50kL wastewater storage poly tanks (to be installed) Flowmeter (FM1) and sampling tap (SP1) attached to the last gravity settling tank.	d) Flow meter (FM1) must be maintained to enable the cumulative volume of wastewater discharged to LAA1 to be accurately measured. e) A photograph at the end of each month must be taken of the flow meter read (FM1). f) Any sludge must be removed from the system and disposed of off-site to a licensed waste facility. g) Any untreated solids that are removed from the WWTS must be stored in a sealed bin. h) Wastewater that exceeds on-site storage capacity must be disposed of at a licensed liquid waste facility.	
	Solids Management		
3.	**Marc pad**, situated on a concrete hardstand area with a strip drain that directs any spillages to the WWTS	a) Only marc may be stored on/within the marc pad. b) Marc must not be stored on site for more than 24 hours. c) Marc must be disposed of offsite. d) All leachate arising from the storage of marc pad must be captured for drainage to the WWTS.	Depicted in Figure 1, Schedule 1 as: Marc Pard
	Wastewater irrigation area (L1)		
4.	**1.13 ha wastewater irrigation area** (L1) consisting of a ground located dripper system irrigating to established Karri trees and kikuyu grass.	a) No irrigation can occur during the months of June, July, August and September. b) No irrigation can occur 12 hours before forecasted rain, during, or 24 hours immediately after a rainfall event of 3mm. c) Grass in the irrigation area must be cut and removed from the irrigation area at least once per annual period. d) Wastewater must be evenly distributed over the irrigation area. e) No irrigation generated ponding within the irrigation area is to occur f) No irrigation generated run-off beyond the boundary of the irrigation area is to occur.	Depicted in Figure 1, Schedule 1 as: Irrigation area L1

Emissions and discharges

6. The licence holder must ensure that wastewater discharged to L1 does not exceed the corresponding limit described in Table 4 when monitored in accordance with condition 6.

Table 4. Emission and discharge limits

Discharge point	Parameter	Limit value
Wastewater irrigation area (L1)	Sodium adsorption ratio: Electrical conductivity ratio (SAR:EC ratio)	Within the 'Stable soil structure' range depicted in Schedule 4 Figure 3.
	Total nitrogen	<70 kg/ha/annual period
	Total phosphorus	<10.5 kg/ha/annual period
	Biological oxygen demand	<1,500 kg/month
	pH	Between 6 and 9

Monitoring

7. The licence holder must 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 soil sampling is conducted in accordance with AS/NZS 4482.1;
(d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11 and
(e) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

Monitoring of wastewater emissions to land

8. The licence holder must monitor wastewater emissions in accordance with the requirements specified in Table 5 and record the results of all such monitoring.

Table 5. Wastewater monitoring requirements

Monitoring location	Parameter	Units	Frequency
Flow meter (FM1) on outlet of 23kL treated wastewater storage tank	Volumetric flow rate (cumulative)	kL	Continuous when discharging
Samples to be taken from from the sampling tap on the 23kL treated wastewater storage tank (SP1)	pH[1]	-	Monthly when irrigating
	Electrical conductivity[1]	dS/m	
	Total nitrogen	mg/L	
	Total phosphorus		
	Total dissolved solids		
	Total suspended solids		
	Biological oxygen demand		
	Sodium ion (Na^+)[2]		
	Calcium ion (Ca^{2+})[2]		
	Magnesium ion (Mg^{2+})[2]		
	Sodium adsorption ratio	-	

[1]In field non-NATA accredited analysis permitted for pH and electrical conductivity.
[2]Non-Nata accredited analysis permitted for

Monitoring of ambient soil

9. The licence holder must monitor soil for concentrations of the identified parameters in accordance with Table 6 and record the result of all such monitoring.

Table 6. Soil monitoring requirements

Soil sampling location	Soil profile	Parameter	Units	Sampling frequency
One composite near surface soil sample consisting of at least 40 sub-samples from LAA1. Samples are to be collected from across LAA1 in a uniform pattern to accurately represent the entire area.	0-10 cm	pH	-	Every 3 years in March, starting in March 2026
		Electrical conductivity	dS/m	
		Total nitrogen	mg/L	
		Nitrate – Nitrogen		
		Total Phosphorus		
		Phosphorus (Colwell)		
		Exchangeable sodium percentage	%	
		Phosphorus sorption capacity	kg/ha	
		Heavy metals	mg/L	
		Saturated hydraulic conductivity	mm/hr	
One composite soil sample, consisting of at least 10 sub samples of each major soil horizon to 100cm. Samples are to be collected from across LAA1 in a uniform pattern to accurately represent the entire area.	15cm-70cm 70cm-100cm	pH	-	Every 3 years in March, starting in March 2026
		Electrical conductivity	dS/cm	
		Total nitrogen	mg/L	
		Nitrate – Nitrogen		
		Total Phosphorus		
		Phosphorus (Colwell)		
		Exchangeable sodium percentage	%	
		Phosphorus sorption capacity	kg/ha	
		Heavy metals	mg/L	

Records and reporting

Records

10. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.

11. The licence holder must maintain accurate and auditable books including the

following records, information, reports, and data required by this licence:

(a) the calculation of fees payable in respect of this licence;

(b) the works conducted in accordance with condition 1 of this licence;

(c) any maintenance of infrastructure that is performed in the course of complying with condition 5 of this licence;

(d) monitoring programmes undertaken in accordance with conditions 8 and 9 of this licence; and

(e) complaints received under condition 10 of this licence.

12. The books specified under condition 11 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the licence holder for the duration of the licence; and

(d) be available to be produced to an inspector or the CEO as required.

Reporting

13. The licence holder must notify the CEO within 14 days of detecting a malfunction of any site infrastructure listed in Table 3.

14. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period, and

(b) prepare and submit to the CEO by no later than 31 August after the end of that annual period an Annual Audit Compliance Report in the approved form.

15. The licence holder must submit an Annual Environmental Report to the CEO by 31 August each year, covering the previous annual period. The report must address the conditions and requirements listed in Table 7.

Table 7. Environmental reporting requirements

Condition	Requirement
Condition 5 – Operational requirements	a) Monthly read of Flow meter (FM1) and photographs of meter read b) Volume/mass (tonnes) of harvested kikuyu within irrigation area.
Condition 6 – Emission discharge limits	a) Tabulated loadings of nitrogen, phosphorus and BOD applied to irrigation area (L1) using departmental spreadsheet provided in Schedule 3. b) An assessment and interpretation of the data including comparison to historical trends and loading limits
Condition 8 – Monitoring of wastewater	a) Monthly volume (kL) of wastewater applied to irrigation area (L1) b) Wastewater monitoring data (from SP1) in tabulated and graphical form including the sampling date. c) An assessment and interpretation of the data including comparison to historical trends, of at least the previous 5 years once available. d) Copies of laboratory sample analysis reports.
Condition 9 –	a) Soil monitoring data in tabulated and graphical formats including the

Condition	Requirement
monitoring of ambient soil	sampling date. b) Name of the person who collected the soil samples c) Locations of samples taken d) An assessment and interpretation of the data including comparison to historical trends. e) Copies of laboratory sample analysis reports.
Condition 10 – Complaints	Summary of complaints recorded for the annual period.
Condition 13 – Reporting	Summary of any failure or malfunction of any infrastructure listed in Table 3 and any environmental incidents that have occurred during the annual period and any corrective actions taken.

Definitions

In this licence, the terms in Table 8 have the meanings defined.

Table 8: Definitions

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates are available on the Department's website).
annual period	a 12-month period commencing from 1 August 1 until 31 July of the immediately following year.
AS/NZS 4482.1-2005	means Australian Standard AS4482.1-2005 Guide to the investigation and sampling of sites with potentially contaminated soil – Non-volatile and semi volatile compounds.
AS/NZS 5667.1-1998	means the Australian Standard AS/NZS 5667.1-1998 Water quality - Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.
AS/NZS 5667.10-1998	means the Australian/New Zealand Standard AS/NZS 5667.10-1998 Water quality – Sampling – Guidance on sampling of waste waters.
AS/NZS 5667.11	means the current version of Australian / New Zealand Standards AS/NZS 5667.11 *Water Quality – Sampling, Part 11: Guidance on sampling of groundwaters*
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
condition	a condition to which this licence is subject under section 62 of the EP Act
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3
discharge	has the same meaning given to that term under the EP Act.
dS/m	decisiemens per metre
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure has been installed in accordance with this licence

Term	Definition
emission	has the same meaning given to that term under the EP Act.
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
kg/ha	kilograms per hectare
kL	kilolitres
L/day	litres per day
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
marc	means the solid remains of grapes, such as skins, seeds, and stem, after they have been pressed for juice.
malfunction	means a piece of equipment or machinery which fails to function normally. This can include but is not limited to flow meters failing to record, over topping of tanks, blocked sprinklers or pipes bursting.
mg/L	means milligrams per litre
monthly	means a one-month period from the first day of a month until the last day of that same month
NATA	means the (Australian) National Association of Testing Authorities
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	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map Figure 1 in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises and site layout

Figure 1. The boundary of the prescribed premises and site layout

Construction and development plans

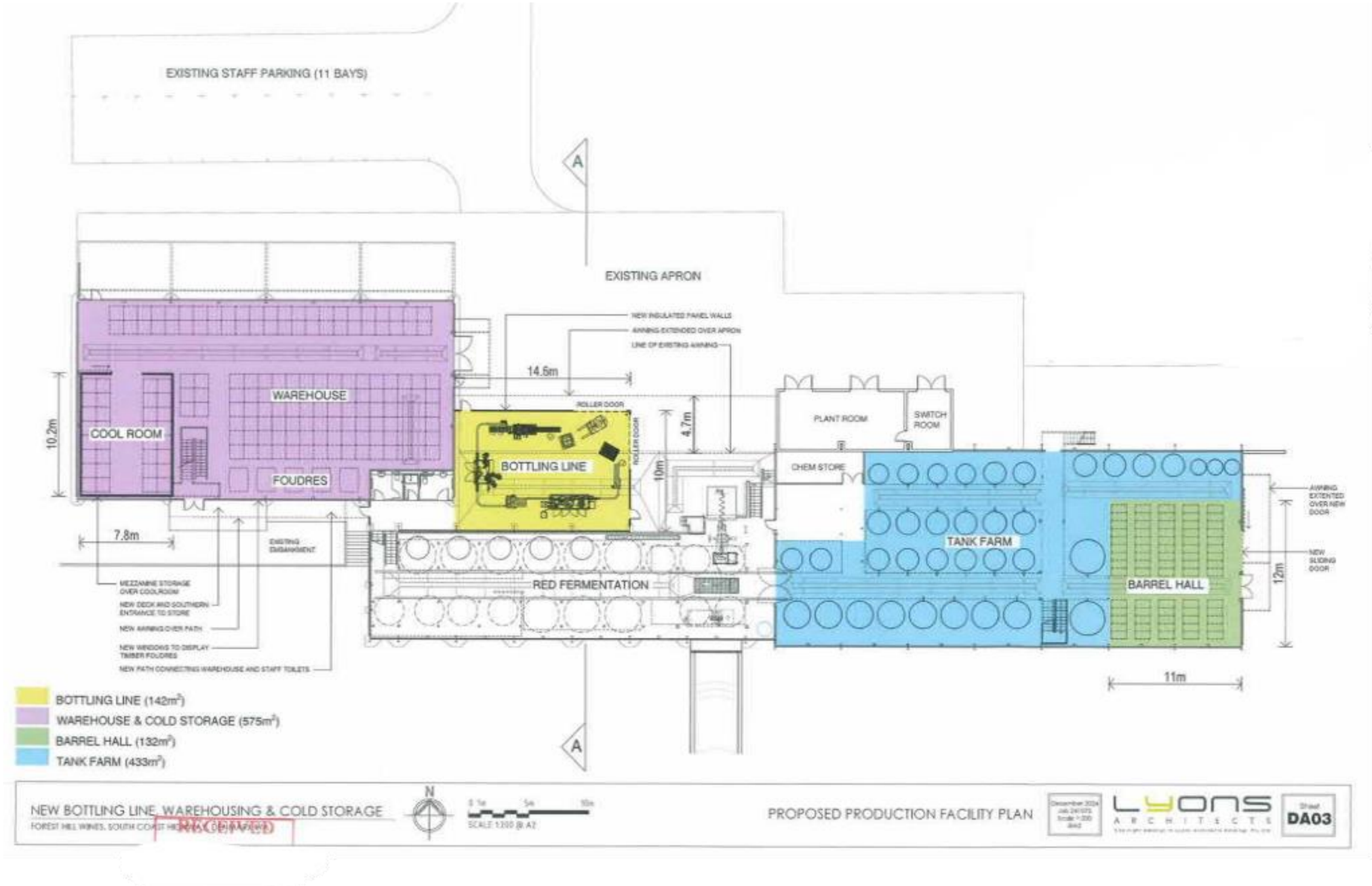

Figure 2. Proposed construction and changes to the winery

Schedule 2: Land application area (L1) coordinates

	Latitude	Longitude
	L1 - 1.3 ha	
1	-34.972952	117.315686
2	-34.972673	117.315871
3	-34.972224	117.315665
4	-34.972623	117.314094
5	-34.973189	117.314456

Schedule 3: Nutrient Loading rate spreadsheet

Irrigation areas[1]: size, volume irrigated, irrigation days				Annual period (as defined by your licence)[2]												Volume irrigated during annual period (kL)[3]
	Size (ha)			January	February	March	April	May	June	July	August	September	October	November	December	
EXAMPLE irrigation area:	*25*	*volume irrigated*	*kL*	*20,000*	*20,000*	*18,000*	*15,000*	*0*	*0*	*0*	*0*	*15,000*	*18,000*	*20,000*	*25,000*	*151,000*
		days of irrigation	*days/month*	*29*	*28*	*30*	*25*	*0*	*0*	*0*	*0*	*20*	*25*	*30*	*27*	
Irrigation Area 1:	4.5	volume irrigated	kL													
		days of irrigation	days/month													
Irrigation Area 2:		volume irrigated	kL													
		days of irrigation	days/month													
Irrigation Area 3:		volume irrigated	kL													
		days of irrigation	days/month													
Wastewater quality[4]	*EXAMPLE sampling date:*			*20/01/2022*	*15/02/2022*	*17/03/2022*	*19/04/2022*	*12/05/2022*	*12/06/2022*	*9/07/2022*	*15/08/2022*	*12/09/2022*	*15/10/2022*	*13/11/2022*	*7/12/2022*	
	EXAMPLE total nitrogen	*mg/L*		*13.2*	*21.3*	*17.6*	*19.2*	*42.4*	*25.1*	*30.4*	*40.3*	*34.8*	*38.7*	*44.6*	*47.3*	
	EXAMPLE BOD	*mg/L*		*4.8*	*12.1*	*6.1*	*4.9*	*4.8*	*4.1*	*3.3*	*5.2*	*4.4*	*5.2*	*5.1*	*7.5*	
	Sampling date:															
	For wineries to indicate sampling period:[5]															
	Total nitrogen	mg/L														
	Total phosphorus	mg/L														
	Biochemical oxygen demand	mg/L														

Nutrient and BOD loadings[6]			January	February	March	April	May	June	July	August	September	October	November	December	kg/ha/annual period[7]
EXAMPLE total nitrogen loadings			*10.6*	*17.0*	*12.7*	*11.5*					*20.9*	*27.9*	*35.7*	*47.3*	*183.5*
EXAMPLE BOD loadings		*kg/ha/month*	*3.8*	*9.7*	*4.4*	*2.9*					*2.6*	*3.7*	*4.1*	*7.5*	*38.8*
		kg/ha/day	*0.13*	*0.35*	*0.15*	*0.12*					*0.13*	*0.15*	*0.14*	*0.28*	
Irrigation Area 1	Total nitrogen	kg/ha/month													
	Total phosphorus	kg/ha/month													
	Biochemical oxygen demand	kg/ha/month													
		kg/ha/day													
Irrigation Area 2	Total nitrogen	kg/ha/month													
	Total phosphorus	kg/ha/month													
	Biochemical oxygen demand	kg/ha/month													
		kg/ha/day													
Irrigation Area 3	Total nitrogen	kg/ha/month													
	Total phosphorus	kg/ha/month													
	Biochemical oxygen demand	kg/ha/month													
		kg/ha/day													

Explanatory notes and calculations:

White cells should be filled in where applicable.

NOTE 1 - Where there is irrigation to more than 3 areas, additional copies of this sheet should be completed.

NOTE 2 - This sheet should be completed for your annual period as defined by your licence.
E.g. If your annual period is from 1 October to the 30 September in the following year, for the 2022-2023 annual period, you should include data from January - September 2023, and October - December 2022.

NOTE 3 - Volume irrigated during the annual period (kL), for each irrigation area is the sum of the monthly volumes irrigated to that area.
E.g. For the example shown: Volume irrigated during annual period = 20,000 (Jan) + 20,000 (Feb) + 18,000 (Mar) + 15,000 (Apr) + 15,000 (Sep) + 18,000 (Oct) + 20,000 (Nov) + 25,000 (Dec) = 151,000 kL. Noting that for the example there was no irrigation during the months of May, June, July or August.

NOTE 4 - The sampling and analysis of your wastewater quality should be undertaken in accordance with your licence conditions. For sampling less often than monthly, i.e. quarterly, 6-monthly, or annually: for months where no sampling is required, wastewater quality should be taken to be equivalent to the most recent sample taken. *E.g. Quarterly sampling during Feb, May, Aug and Nov - total nitrogen concentrations were analysed to be 7, 11, 8 and 13 mg/L respectively in the wastewater. For March and April, as February was the most recent sample taken, total nitrogen concentration is estimated to be 7 mg/L. Similarly, for June and July, as May was the most recent sample, total nitrogen concentration is estimated to be 11 mg/L. There will be no sampling date associated with non-sampling months.* If your licence requires you to monitor loading rates for additional parameters (e.g. inorganic nitrogen, reactive phosphorus etc.) additional copies of this sheet should be completed for the additional parameters.
NOTE 5 - For wineries to indicate sampling period - this row is only required to be completed if your licence condition specifies a sampling period e.g. pre-vinatge, peak vintage, late vintage, post vintage, non-vintage. Indicate which sampling date corresponds with which period.
NOTE 6 - Parameter loading (TN, TP or BOD) each month per hectare for each irrigation area (kg/ha/month): monthly concentration of parameter (TN, TP or BOD) in mg/L * monthly volume of wastewater irrigated to irrigation area (kL) ÷ 1000 size of irrigation area *E.g. Using the example shown, for total nitrogen for January: 13.2 mg/L * 20,000 kL / 1,000 = 264 kg/month. 264 / 25 ha = 10.6 kg/ha/month (for January).* Loading of parameter (BOD) each day per hectare for each irrigation area (kg/ha/day): BOD loading (kg/ha/month) ÷ number of days of irrigation during that month. *E.g. Using the example shown, for BOD for October: 3.7 kg/ha/month / 25 days of irrigation during October = 0.15 kg/ha/day (for October)*
NOTE 7 - To calculate annual loading of parameter (TN, TP or BOD) per hectare (kg/ha/annual period): sum of monthly loadings (kg/ha/month). You should calculate an annual loading (kg/ha/annual period) for each parameter for each irrigation area. *E.g. Using the example shown, for total nitrogen: 10.6 (Jan) + 17 (Feb) + 12.7 (Mar) + 11.5 (Apr) + 20.9 (Sep) + 27.9 (Oct) + 35.7 (Nov) + 47.3 (Dec) kg/ha/month = 183.5 kg/ha/annual period*

* To request an electronic copy of this spreadsheet please contact info@dwer.wa.gov.au attention Process Industries

Schedule 4: SAR:EC Ratio

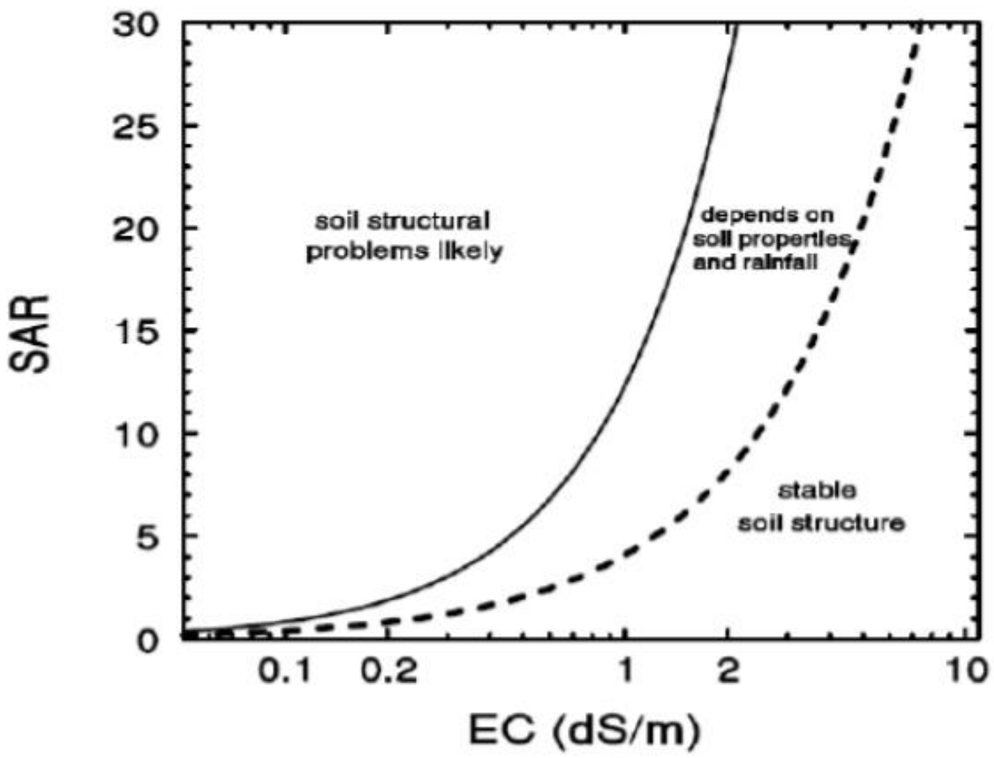

Figure 3. SAR:EC soil ratio graph