



Application to replace expiring licence

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L8876/2015/2
Licence Holder	Sassegy Pty Ltd
ACN	008 996 156
File Number	DER2015/000071
Premises	Wise Wine winery 237 Eagle Bay Road NATURALISTE WA 6281 Being Lot 101 on Plan 28068 and Lot 53 on Diagram 54855
Date of Report	24 November 2020
Decision	Replacement licence granted

1. Decision summary

The delegated officer has determined to replace licence L8876/2015/2, which includes an update to the format, amalgamation of previous amendment notices and extension of the expiry date. These amendments are administrative in nature and do not alter the risk profile of the premises, providing that activities, emissions and receptors as stated in existing approvals remain unchanged.

The delegated officer has also determined to make material changes to the previous licence in accordance with the *Guidance Statement: Risk Assessments* (DER 2017). These changes are explained in section 5 of this report.

This report documents the changes made to the previous licence as part of the replacement process, pursuant to sections 62 and 62(A) of the *Environmental Protection Act 1986* (EP Act).

2. Scope of assessment

2.1 Regulatory framework

In replacing the licence, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary and overview of premises

Licence L8876/2015/2 is held by Sasse Pty Ltd for the Wise Wine winery (the premises), located at 237 Eagle Bay Road in Naturaliste, about 2.5 km southeast of Dunsborough.

The premises relates to the category and assessed production capacity under Schedule 1 of the Environmental Protection Regulations 1987, which are defined in licence L8876/2015/2. The premises consists of a vineyard, cellar door, restaurant, onsite accommodation, winery processing facility, wastewater treatment plant (WWTP), three dams and about 14 ha of remnant vegetation. The licence holder has operated the winery since the early 1990s. All winery processing infrastructure is contained within a concrete hardstand area, which includes drains around the perimeter and the capacity to pump stormwater to the WWTP collection sump in heavy rainfall events. The treated wastewater is discharged through a canon sprinkler system to a 4.5 ha paddock on the premises.

Wastewater is pumped from the collection sump through a slope screen to remove solids and reduce biological oxygen demand (BOD) levels and odour. The solids are collected in a solids bin and provided to local vineyards as compost. Wastewater is then pumped into the mixing tank where automated pH monitoring and adjustment takes place to achieve a pH of 7.

Screened wastewater is gravity fed to the initial settling tank to remove fine suspended solids while also providing wastewater storage prior to aerobic treatment. Subsequently, the wastewater is gravity fed to the pre-treatment aeration tank to initiate biological breakdown and assist in suspending organic solids. Wastewater is aerated for a maximum of 24 hours and then fed to the secondary settling tank, and then to the secondary aerobic treatment tank to be aerated for a further two days (approximately) before being fed to a final settling tank.

Solid waste generated in the primary treatment of the wastewater includes sludge, which is disposed of off-site, and marc (solid remains after the grapes are pressed) which is stored on a hardstand pad prior to reuse.

The WWTP pump is designed with a maximum flow rate of 10 kL/hour. The treated wastewater is currently discharged through a canon sprinkler system to a 4.5 ha paddock on the premises. Treated wastewater is not discharged to the irrigation area during rainfall or onto flooded areas, and if soil moisture conditions are such that surface run-off or ponding is likely to occur. Figure 1 summarises the wastewater treatment process.

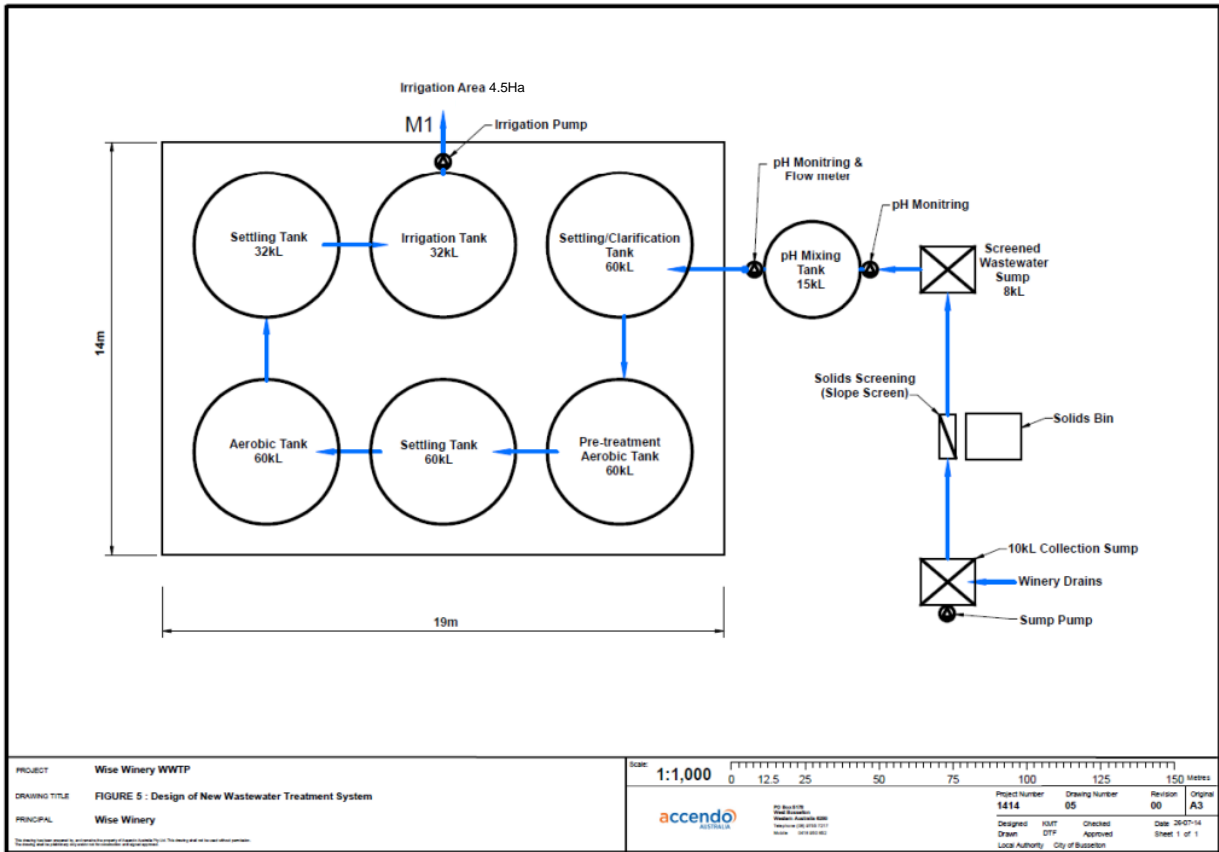


Figure 1: Wastewater treatment plant layout and location of discharge monitoring points

3. Consultation

The application for licence renewal was referred to the City of Busselton for comment on 10 September 2020 and no comments were received.

4. Risk assessment

The table below describes the risk events associated with the amendments consistent with the *Guidance Statement: Risk Assessments* (DER 2017). The table identifies whether the risk events are acceptable and tolerated, or unacceptable and not tolerated, and the appropriate treatment and degree of regulatory control, where required.

Risk Event				Risk rating ¹	Conditions of licence	Reasoning
Source/Activities	Potential emission	Potential pathways and impact	Receptors	C = consequence L = likelihood		
Operation						
Treatment of wastewater in the WWTP	Nutrient rich leachate, stormwater and winery wastewater	Loss of containment causing seepage of nutrient rich wastewater into the ground or direct run-off into surface water, causing adverse impacts to soil and water quality	<ul style="list-style-type: none"> In-situ soils Surface water: Meelup Brook 250 m southeast of WWTP 	C = Moderate L = Unlikely Medium risk	Condition 1 (infrastructure and equipment) Condition 3 (emissions and discharges)	Winery wastewater, with high levels of nutrients and BOD, has the potential to cause local soil degradation and surface water contamination if spillage and/or runoff is allowed to occur. To avoid such an event, operational requirements for the WWTP have been transferred from the previous licence into the replacement licence. These requirements include specifying that it must be managed such that overtopping does not occur, and all wastewater including wash down water, by-products wastewater and contaminated runoff stormwater must be directed to drains to be pumped into a collection sump to prevent it discharging to land.
Solid waste storage and processing	Marc, lees, sludge and other organic solid wastes with elevated levels of organic matter, salts, and BOD, moderate nutrient (N and P) loadings and with low pH	Loss of containment causing eutrophication and other adverse impacts to soil and water	<ul style="list-style-type: none"> In-situ soils Surface water: Meelup Brook 250 m southeast of WWTP 	C = Moderate L = Unlikely Medium risk	Condition 1 (infrastructure and equipment) Condition 2 and 3 (emissions and discharges)	<p>If discharged to the environment, organic solid wastes can cause eutrophication and other adverse impacts to soils and surface water due to the elevated levels of nutrients (nitrogen and phosphorous) and BOD.</p> <p>Marc is currently stored on a purpose built bunded hardstand pad and solids from the steel slope screen are stored in a 1,000 L bin prior to being reused in an offsite composting program. Sludge from the WWTP is periodically extracted from the sludge tank by a licensed controlled waste contractor for offsite disposal. These practices are deemed appropriate in mitigating the risk of discharge to the environment and therefore have been included as controls in the replacement licence.</p>
Irrigation of treated wastewater	Treated winery wastewater with elevated levels of organic matter, salts, and BOD, moderate nutrient (N and P) loadings and with low pH	Pooling of treated wastewater causing infiltration through the soil profile and groundwater contamination	<ul style="list-style-type: none"> Groundwater 	C = Moderate L = Possible Medium risk	Condition 1 (infrastructure and equipment) Conditions 3, 4 and 5 (emissions and discharges)	<p>Treated wastewater has elevated levels of nutrients (nitrogen and phosphorous), salts and BOD and low pH which can cause degradation to local soils, groundwater and surface water if pooling and runoff is allowed to occur. This can have secondary adverse impacts to the receiving ecosystem, such as native flora and fauna in the area.</p> <p>To mitigate the potential for pooling of treated wastewater which may lead to infiltration through the soil profile, groundwater contamination, erosion and runoff, the operational requirement of the wastewater irrigation infrastructure to be an automated travelling cannon spray system has been included in the replacement licence.</p> <p>There is insufficient evidence to definitively conclude that groundwater at the site is > 15 m BGL as stated by the licence holder. The geology in the region has resulted in the occurrence of springs and seeps throughout the locality. Therefore, a requirement to develop and submit a Nutrient Irrigation Management Plan (NIMP) in accordance with Water Quality Protection Note 33 (WQPN 33) may be required in a future review of the licence which is not within the scope of this replacement licence.</p>
		Treated wastewater that reaches groundwater may cause surface water contamination	<ul style="list-style-type: none"> Surface water: Meelup Brook 180 m southeast of irrigation area 	C = Moderate L = Unlikely Medium risk		
		Runoff from pooling treated wastewater may cause erosion	<ul style="list-style-type: none"> In-situ soils 	C = Minor L = Possible Medium risk		
		Over application of saline wastewater may cause salinisation	<ul style="list-style-type: none"> In-situ soils 	C = Moderate L = Possible Medium risk		

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).

5. Decision

The delegated officer has made a number of changes to the previous licence, including an update to the format and amalgamation of previous amendment notices. Material changes are explained in this section. Other minor changes to improve clarity in existing conditions and are summarised in Table 1.

An infrastructure table has been included in the replacement licence to specify operational requirements of processing equipment and infrastructure, including the WWTP, storage and processing tanks and wastewater irrigation infrastructure, to ensure there is a low risk of impacts to public health and the environment from operations.

The marc pad has also been included as a discharge point within the replacement licence. Organic solid wastes have the potential to cause adverse impacts, such as eutrophication of in-situ soils, vegetation, and waterways and therefore, the infrastructure used to store them should be controlled to mitigate that risk. Similarly, sludge produced at the WWTP has been included within the waste processing conditions to stipulate that it must be removed directly from the WWTP by a licenced controlled waste contractor. The requirement to direct all wastewater, including wash down water, by-products wastewater and contaminated run-off to the WWTP has also been included within the waste processing conditions as the delegated officer determined that such discharges could cause adverse impacts to the environment if not controlled.

5.1 Consolidation

As part of this amendment the delegated officer has consolidated the licence by incorporating changes made under previous amendment notices. No additional assessment has been conducted as part of this consolidation. Decisions relating to the consolidated licence are published in previous amendment notices, and in accordance with section 59(1) of the EP Act, incorporating these changes into a single amended licence is not appealable.

In amending the licence, the delegated officer has also:

- updated the format and appearance of the licence;
- deleted the redundant AACR form set out in schedule 1 of the previous licence;
- revised condition numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

The decision report for the previous licence will remain on the DWER website for future reference and will act as a record of DWER's decision making.

5.2 Licence holder comments on draft decision

The draft documents were provided to the licence holder on 10 November 2020. The licence holder provided a response via email on 23 November 2020. In relation to a condition in the draft licence limiting wastewater irrigation to 4,000 kL/annual period, the licence holder advised that wastewater irrigation has exceeded this limit for the last three annual periods and therefore, it is not a realistic limit reflective of current operations at the premises. The delegated officer has removed the condition as new limits are not within the scope of this licence replacement, noting that there are existing limits on nutrient emissions to land. The delegated officer notes that the licence is scheduled for review in the future at which time irrigation limits may be considered, depending on the outcome of a detailed risk assessment.

6. Conclusion

The delegated officer notes this licence is scheduled for review in the future, to ensure the risks previously assessed by the department in relation to activities at the premises have not

materially changed. In particular, WWTP processes will be reviewed, as well as the risk to soil, groundwater and surface water from irrigation activities.

Based on the assessment in this report, the delegated officer has determined that a renewed licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

6.1 Summary of amendments

Table 1 below provides a summary of changes to the licence, which will act as a record of implemented changes. All proposed changes have been incorporated into the licence as part of the replacement process.

Table 1: Summary of licence amendments

Condition no.	Condition summary	Revised licence condition	Conversion notes
N/A	Expiry date: 29 November 2020	Expiry Date: DD MONTH 2025	Extended in accordance with DWER <i>Guideline: Licence Duration (August 2016)</i> .
N/A	Front page	N/A	Revised to current licensing format. Amended assessed production capacity to reflect current licence.
N/A	Licence history	N/A	Added to Licence to reflect revisions and amendment notices.
Definitions	Interpretation and definitions	Interpretation section, Definitions	Updated to be relevant to renewed licence. Revised to current licensing format. Definitions now at back of licence, Table 8.
1.2.1	Infrastructure and equipment	N/A	Condition removed as it is considered redundant under current licensing framework.
1.3.1		N/A	Condition removed and requirements embedded within Condition 3.
1.3.2	Premises operation	1	Added wastewater processing, irrigation area and infrastructure to table. Placed under Infrastructure and Equipment heading.
1.3.3	Management of waste	N/A	Condition removed and requirements embedded within Condition 4.
1.3.4		N/A	Condition removed and requirements embedded within Condition 1.
2.1.1	Emissions	N/A	Condition removed as it is considered redundant under current licensing framework.
2.2.1		2	New numbering and update to wording format, placed under Emissions and Discharges heading. Added solid wastes to

Condition no.	Condition summary	Revised licence condition	Conversion notes	
			table.	
2.2.2		5	New numbering and update to wording format, placed under Emissions and Discharges heading.	
3.1.1 – 3.1.4 3.2.1	Monitoring	6 – 10	New numbering and update to wording format.	
4.1.1	Information	14	New numbering and update to wording format, placed under Records and Reporting heading.	
4.1.2		N/A	Condition removed as it is considered redundant under current licensing framework.	
4.1.3		12	New numbering and update to wording format, placed under Records and Reporting heading.	
4.1.4		11	New numbering and update to wording format, placed under Records and Reporting heading.	
4.2.1		15	New numbering and update to wording format, placed under Records and Reporting heading.	
4.2.2		N/A	Condition removed and requirements embedded within Condition 15.	
4.3.1		N/A	Condition removed and requirements embedded within Conditions 12 and 15.	
N/A		N/A	13	Condition added to include requirement to maintain accurate and auditable books.
Premises map		-	-	Map updated to include marc pad (L2)
WWTP map	-	-	Map updated to display irrigation area of 4.5 hectares	

References

1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
3. Department of Water (DoW) 2010, *Water Quality Protection Note 33: Nutrient and Irrigation Management Plans (WQPN 33)*.