



Licence number	L9215/2019/1
Licence holder	Rocky Ridge brewing Co Pty Ltd
ACN	605381520
Registered business address	665 Boallia Road JINDONG WA 6280
DWER file number	DER2019/000251
Duration	17/06/2020 to 16/06/2040
Date of issue	17 June 2020
Premises details	Rocky Ridge Brewing Co Pty Ltd 665 Boallia Road, JINDONG, WA, 6280 Legal description - Lot 2370 on Deposited Plan 203036

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production / design capacity
Category 25: Alcohol beverage manufacturing: premises on which an alcoholic beverage is manufactured and from which liquid waste is or to be discharged onto land or into waters.	Not more than 860 kL of beer produced per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 17 June 2020, by:

Manager Process Industries

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

Licence history

Date	Reference number	Summary of changes
17/06/2020	L9215/2019/1	New licence

Interpretation

In this licence:

- a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- b) 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;
- c) where tables are used in a condition, each row in a table constitutes a separate condition;
- d) 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;
- e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- f) 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:

Infrastructure and equipment

1. The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
<p>Brewery production and shed hardstand area consisting of:</p> <ul style="list-style-type: none"> • 8 stainless steel fermenting tanks (3 x 6,000 L and 5 x 3,000 L) tanks; • 3 stainless steel Bright tanks; • Stainless steel kettle • Keg Filler • Stainless steel Whirlpool • 4 x 200L polyurethane tubs in the CIP system • 900L central drain • 2kL concrete wastewater collection sump. 	<p>(a) All plant and equipment used for the production and packaging of beer (excluding water tanks) must be installed and maintained within purpose built enclosed structures.</p> <p>(b) Concrete central drain maintained to receive all wastewater from the brewery operations and direct it to the wastewater collection sump through a solids filter basket.</p> <p>(c) Filter basket is monitored daily and emptied at least once a week.</p> <p>(d) The wastewater collection sump is kept free of solids.</p>	<p>Figure 2 and 3 in Schedule 1 and shown as:</p> <p>Brew shed</p> <p>Store room</p> <p>Packaging room</p>
<p>Wastewater treatment plant (WWTP) consisting of :</p> <ul style="list-style-type: none"> • 5 kL pH buffering / settling tank; • 97 kL aeration tank; • 10 kL post settling tank; • 10 kL irrigation tank; • Pipes and associated infrastructure and • Hardstand area. 	<p>(a) All pipeline connections to wastewater treatment tanks and pumps to be fitted with a 2 inch sealed PVC pipe with non-return valves.</p> <p>(b) Sludge in the buffering /settling tank to be removed at least 4 times a year by a licensed contractor.</p> <p>(c) Sludge in the post settling tank and irrigation tank to be removed at least once a year by a licensed contractor.</p> <p>(d) Sampling Point L1 within the irrigation tank is maintained to allow for periodic sampling of treated wastewater.</p>	<p>Figure 2 and 3 in Schedule 1 and shown as:</p> <p>10,000L irrigation tank</p> <p>L1 wastewater sampling point</p> <p>10,000L post settling tank</p> <p>97,000L aeration tank,</p> <p>5,000L elevated settling and pH buffering tank</p>

Site infrastructure and equipment	Operational requirement	Infrastructure location
Irrigation areas A1 and A2 consisting of: travelling self-propelled irrigator; irrigation line connecting irrigator to irrigation pipeline; and irrigation pipeline(s) and pump(s) connecting to flow meter and treated wastewater irrigation tank.	<ul style="list-style-type: none"> (a) Flow meter capable of accurately monitoring the volume of wastewater discharge from the irrigation tank (as specified in Figure 3 in Schedule 1) to the irrigation areas A1 and A2 (as defined in Figure 4 in Schedule 1). (b) Irrigation system valves, pumps, pipelines, and other fittings must be maintained and inspected daily for ruptures or leaks when irrigating. (c) Spray irrigator to be maintained to ensure no blockages to allow even and effective spray production and ensure mobility, stopping and cut-off mechanisms are functioning as per equipment design. (d) Spray irrigator operated to deliver treated wastewater at a rate of not less than 1mm/hour or 1L over 1 metre square. (e) Fence to exclude stock from accessing irrigation areas. 	Figure 2, 3 and 4, Schedule 1 and shown as: Indicative pipework with kline pumps. Labelled as: L2 Flow meter, and A1 and A2 as irrigation areas.

Disposal of treated wastewater

- The Licence Holder must ensure treated wastewater is discharged to land only at the locations specified in Table 2 and in accordance with the corresponding discharge requirements specified in Column 2 of Table 2.

Table 2: Authorised discharge of treated wastewater via irrigation

Emission point reference as specified in Schedule 1	Discharge via irrigation requirements
A1 and A2 Irrigation areas as specified in Figure 4, Schedule 1.	<ul style="list-style-type: none"> (a) As from 31 May 2021, no irrigation during the months of June, July and August may occur. (b) Wastewater must be treated in the wastewater treatment system, which includes pH buffering, aerobic treatment and settling, prior to irrigation. (c) Bunding/cut-off drains are maintained adjacent to treated wastewater irrigation areas to prevent runoff of wastewater. (d) No irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the irrigation area. (e) Irrigation is not undertaken when rainfall is imminent, during or immediately after a rainfall event. (f) Wastewater is evenly distributed over the irrigation area at a rate that no ponding or pooling occurs.

Emission point reference as specified in Schedule 1	Discharge via irrigation requirements
	<ul style="list-style-type: none"> (g) Irrigation does not occur on land that is waterlogged. (h) There are daily visual inspections of the irrigation area when irrigation has occurred. (i) Vegetation in irrigation area A1 is harvested at least once every 12 months. (j) No livestock is permitted to graze the irrigation areas. (k) No soil erosion occurs. (l) Healthy vegetation cover is maintained over the irrigated areas.

Emissions to land loading limits

3. The licence holder must ensure that wastewater to be discharged via irrigation areas A1 and A2 does not exceed the limits specified in Table 3 for each of the corresponding parameters listed in Table 3.

Table 3: Irrigation emission limits

Emission point reference	Parameter	Loading Limits
A1 and A 2 As shown in Figure 4 Schedule 1	Total nitrogen	<30kg/ha/annual period
	Total phosphorus	<10kg/ha/annual period
	BOD ⁵	<30kg/ha/day

Submission of winter irrigation management plan

4. The licence holder must submit to the CEO by 28 February 2021, a Winter Irrigation Management Plan.
5. The Winter Irrigation Management Plan required by condition 4, shall include, but not be limited to:
- a) plans for additional wastewater storage and/or evaporation that will allow for wastewater to be stored for not less than 60 days when irrigation is not possible due to waterlogging conditions or when wastewater is in excess to the pasture or vegetation needs;
 - b) details of proposed management measures to manage winter irrigation that considers environmental factors such as soil moisture, precipitation, pan evaporation and evapotranspiration data and crop factors;
 - c) options for cropping or managing vegetation to increase water and nutrient uptake over winter;
 - d) options for irrigation infrastructure to increase evaporation, provide even distribution and to avoid overwatering, and

- e) measuring, monitoring and reporting in respect to the Winter Irrigation Management Plan.

Works

6. The licence holder must design, construct and install the infrastructures and or equipment listed in Table 4, in accordance with:

- a) the corresponding design and construction requirement / installation requirement; and
- b) at the corresponding infrastructure location; and
- c) within the corresponding timeframe,

as set out in Table 4.

Table 4: Infrastructure requirements – groundwater monitoring wells

Infrastructure	Design, construction, and installation requirements	Location(s)	Timeframe
Two groundwater monitoring wells (MB1 and MB2)	<p><u>Well design and construction:</u></p> <p>Designed and constructed in accordance with <i>ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores</i>.</p> <p>Wells must be constructed with a screened interval from a depth of 0.5 to 3.0 metres below the ground level.</p>	As depicted in Schedule 1, Figure 4: Monitoring Locations Map- MB1 and MB2	Must be constructed, developed (purged), and determined to be operational by 31 March 2021.
	<p><u>Logging of borehole:</u></p> <p>Soil samples must be collected and logged during the installation of the monitoring wells.</p> <p>A record of the geology encountered during drilling must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726.</p> <p>Any observations of staining / odours or other indications of contamination must be included in the bore log.</p>		
	<p><u>Well construction log:</u></p> <p>Well construction details must be documented within a well construction log to demonstrate compliance with <i>ASTM D5092/D5092M-16</i>. The construction logs shall include elevations of the top of casing position to be used as the reference point for water-level measurements, and the elevations of the ground surface protective installations.</p>		
	<p><u>Well development:</u></p> <p>All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the well screen to ensure the hydraulic functioning of the well. A detailed record should be kept of well development activities and included in the well construction log.</p>		
	<p><u>Installation survey:</u> the vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.</p>		

Infrastructure	Design, construction, and installation requirements	Location(s)	Timeframe
	<u>Well network map</u> : a well location map (using aerial image overlay) must be prepared and include the location of all monitoring wells in the monitoring network and their respective identification numbers.		
Volumetric flow meter	Install a flow meter that records the volumetric flow rate on the wastewater irrigation pipeline.	Defined as L2 on Schedule 1, Figure 3	Operational by 31 March 2021

7. The licence holder must within 60 days of each item of infrastructure required by Table 4 being constructed:

- a) undertake an audit of their compliance with the requirements of condition 4, and
- b) prepare and submit to the CEO an audit report on that compliance.

8. The report required by condition 7, must:

- a) be certified by a Qualified Driller that each item of infrastructure or equipment specified in Row 1 of Table 4 meets the corresponding specifications and at the locations set out in Table 4 and has been constructed with no material defects; and
- b) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person within the company.

9. Along with the requirements of condition 7, the licence holder must submit to the CEO copies of the bore logs recorded at the time of installation of each groundwater monitoring bore, which include the following:

- a) GPS coordinates of bore locations;
- b) Start and finish times dates of installation;
- c) Type of drilling method used;
- d) Diameters and depth of hold drilled;
- e) Complete strata details to include:
 - i) well completion diagram;
 - ii) lithological description, including strata depths, and
 - iii) standing water level.
- f) Casing details to include:
 - i) Type and diameter and
 - ii) Class of pipe and wall thickness.
- g) Slotted screening details to include:
 - i) Length of slotted section and location:
 - ii) Screen type, dimensions and location, and
 - iii) Gravel pack material and size.

- h) Bore development procedure and record, including total drilled depth; and
- i) Surveyed height (AHD) of each bore.

Monitoring

10. The licence holder must monitor emissions:

- a) from each discharge point;
- b) for the corresponding parameter;
- c) at the corresponding frequency;
- d) for the corresponding averaging period;
- e) in the corresponding unit, and
- f) using the corresponding method,

as set out in Table 5.

Table 5: Emissions and discharge monitoring

Monitoring point	Parameter	Frequency	Sample type	Unit	Method	
L2 as shown in Figure 3 in Schedule 1 (outflow from the storage tank in the WWTP to irrigation areas A1 and A2)	Volumetric flow rate	Continuous when discharging	Spot sample	m³/day	AS/NZS5667.1-1998 and AS/NZS5667.10-1998	
L1 and L2 as shown in Figure 3 in Schedule 1 (the storage tank in the WWTP)	Volume of treated wastewater discharged	Monthly		m³		
	pH¹			-		
	Electrical conductivity¹					
	Total nitrogen			mg/L		
	Total phosphorus					
	Total dissolved solids					
	Total suspended solids					
BOD₅						

¹ In field NATA accredited analysis permitted.

11. The licence holder must monitor the groundwater for concentrations of the parameter listed in Table 6:

- g) at the corresponding monitoring location;
- h) in the corresponding unit;
- i) at no less than the corresponding frequency;
- j) for the corresponding averaging period; and
- k) using the corresponding method,

as set out in Table 6.

Table 6: Groundwater Monitoring

Monitoring well location	Parameter	Unit	Sample type	Frequency	Method
MB1 and MB2 as shown in Figure 4 Schedule 1	Standing water level	m(AHD) and mbgl	Spot sample	Each quarterly period in the months of March, June, September, December.	Spot and grab samples, in accordance with AS/NZS 5667.11.
	pH ¹	pH units	Spot sample		
	Electrical conductivity ¹	µS / cm	Spot sample		
	Total nitrogen	mg/L	Grab sample		
	Ammonia nitrogen				
	Nitrate nitrogen				
	Total phosphorus				
	Reactive phosphorus				

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

12. The licence holder must record the results of all monitoring activity required by conditions 10 and 11.

13. The licence holder must ensure that:

- a) monitoring is undertaken in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months;
- b) monitoring is undertaken in each quarterly period such that there are at least 45 days in between the days on which samples are taken in successive quarters;

Records and reporting

14. The licence holder must maintain accurate and auditable books that include 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 6 of this licence;

- c) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;
 - d) monitoring programmes undertaken in accordance with conditions 10 and 11 of this licence; and
 - e) complaints received under condition 16 of this licence.
- 15.** The books specified under condition 14 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.
- 16.** 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.
- 17.** 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 60 days after the end of that annual period an Annual Audit Compliance Report in the approved form.
- 18.** The licence holder must submit to the CEO by no later than 60 days after the end of each annual period, an Annual Environmental Report for that annual period for the conditions listed in Tables 5 and 6 which provides information in accordance with the corresponding requirement set out in Table 10.

Table 10: Annual Environmental Report requirements

Condition	Requirement
Wastewater	<ul style="list-style-type: none"> a) volume (in m³ or kL) of treated wastewater applied daily to each irrigation area, and monthly cumulative volumes presented in table format; b) treated wastewater monitoring data in tabulated and graphical form including the sampling date;

	<ul style="list-style-type: none"> c) tabulated monthly and annual loadings of nitrogen, phosphorus and BOD applied to each irrigation area, including an explanation of the basis for determining loading rates; d) an assessment and interpretation of the data, including comparison to historical trends and loading limits; e) copies of the field monitoring records and field QA/QC documentation; f) details (species and tonnages removed) of the crop/vegetation harvested from irrigation area A1 during the annual period;
Groundwater	<ul style="list-style-type: none"> g) copies of the field monitoring records and field QA/QC documentation; h) an assessment of reliability of field procedures and laboratory results; i) copies of laboratory sample analysis reports; j) a tabulated summary of results, as well as all raw data provided in an accompanying Microsoft Excel spreadsheet digital document/file (or a compatible equivalent digital document/file), with all results being clearly referenced to laboratory certificates of analysis; k) a diagram with aerial image overlay showing all monitoring locations and depicting groundwater level contours, flow direction and hydraulic gradient (relevant site features including discharge points and other potential sources of contamination must also be shown); l) an interpretive summary and assessment of the results against relevant assessment levels for water, as published in the Guideline Assessment and management of contaminated sites, Table 5, December 2014; m) an interpretive summary and assessment of results against previous monitoring results, and n) trend time series graphs to provide a graphical representation of historical results and to support the interpretive summary.

Note 1: General guidance on report presentation can be found in the Department's *Guideline: Assessment and management of contaminated sites*.

Definitions

In this licence, the terms in Table 1 have the meanings defined.

Table 1: 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 may be available on the Department's website).
annual period	a 12 month period commencing from 1 May until 30 April of the immediately following year.
AS 1726	means Australian Standard <i>AS 1726 Geotechnical site investigations</i> , as amended from time to time.
ASTM D5092/D5092M-16	means the ASTM international standard for <i>Standard practice for design and installation of groundwater monitoring wells (Designation: ASTM D5092/D5092M-16)</i> , as amended from time to time.
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 <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (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.
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
harvested	means the grown vegetation, pasture or crop that is cut and removed from the irrigation area.
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.

Term	Definition
licence holder	means the occupier of the Premises, being the person to whom this licence has been granted, as identified on the front of this licence.
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.
QA/QC	means quality assurance / quality control.
Qualified driller	means a driller who holds a Class 1 licence as per the Drillers' Classification System outlined in Minimum Construction Requirements for Water Bores in Australia (AIH 2012)
Waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises Map



Figure 1: Map of the boundary of the prescribed premises is outlined in pink

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Site Plan Map

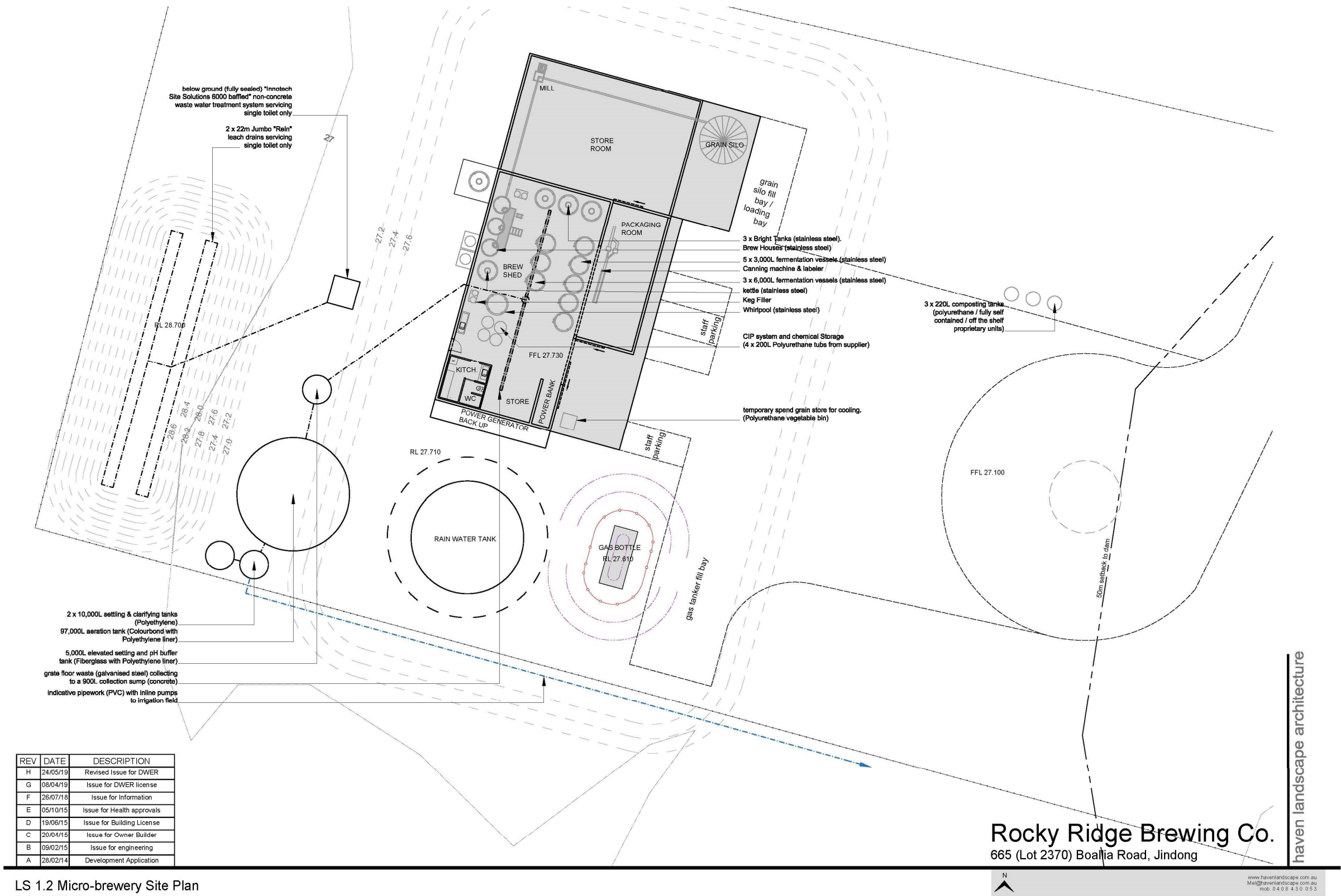


Figure 2 Site Plan of Rocky Ridge Brewery and WWTP.

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Site Wastewater Treatment Diagram

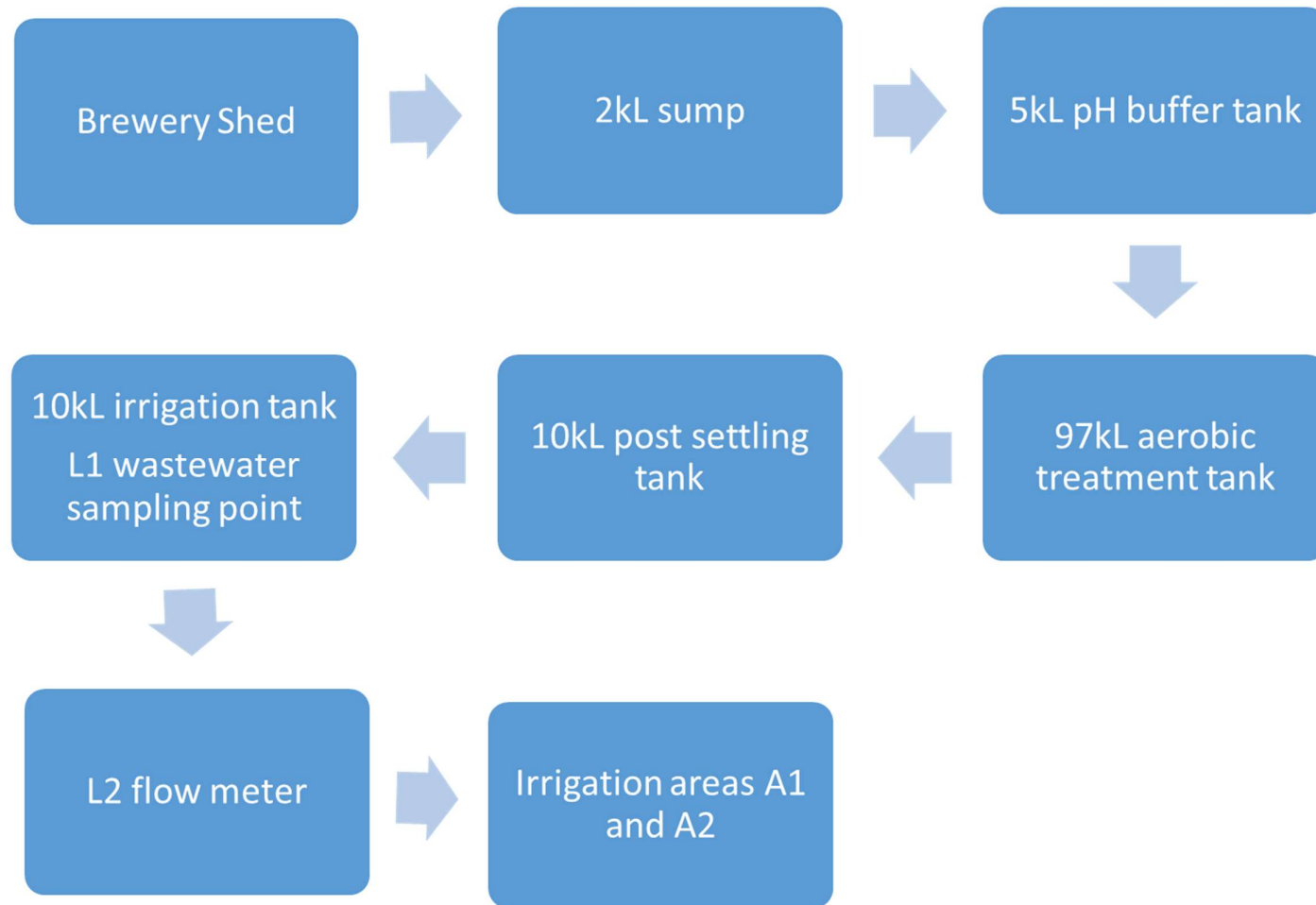


Figure 3 Wastewater treatment diagram of Rocky Ridge Brewery and WWTP. L1 is the wastewater sampling point and L2 is the flow meter.

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Monitoring Locations Map

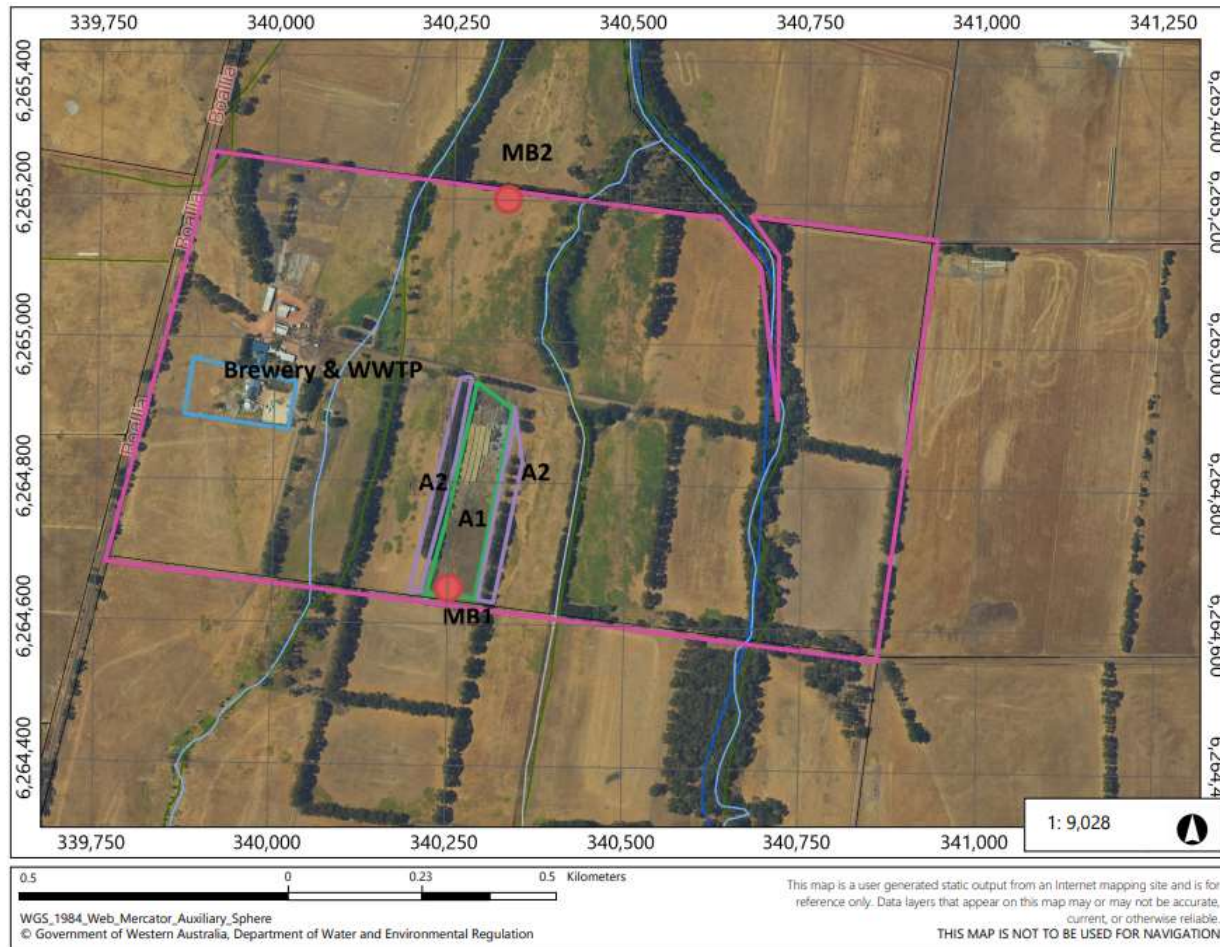


Figure 4. Monitoring Locations. A1 is the Irrigated paddock (outlined in green), A2 is the irrigated trees (outlined in purple), MB1 is the ungradient groundwater bore, MB2 is the down gradient monitoring bore (shown as red circles).

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