Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6908/2024/1
Works approval holder	Roo Brew Pty Ltd
ACN	654 500 017
Registered business address	57 The Esplanade ESPERANCE WA 6450
DWER file number	DER2024/000055
Date of issue	13/06/2024
Duration	13/06/2024 to 12/06/2029
Date of amendment	11/02/2026
Premises details	Lucky Bay Brewing 66 Bandy Creek Road BANDY CREEK WA 6450 Legal description - Lot 66 on Plan 415322 and part of Lot 4 on Plan 61342 as defined by the coordinates and premises map in Schedule 1.

Prescribed premises category description **(Schedule 1, *Environmental Protection Regulations 1987*)**	**Assessed production capacity**
Category 18: Food processing: premises (other than premises within category 24) – (a) on which vegetables are, or fruit or meat is, preserved, cooked, dried, canned, bottled or processed; and (b) from which liquid waste is or is to be discharged onto land or into waters.	Not more than 370 tonnes of cereal grain processed per year

This works approval is granted to the works approval holder, subject to the attached conditions, on 11 February 2026, by:

Caron Goodbourn

Digitally signed by Caron Goodbourn
Date: 2026.02.11 13:12:47 +08'00'

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

Works approval history

Date	Reference number	Summary of changes
13/06/2024	W6908/2024/1	Works approval granted.
11/02/2025	W6908/2024/1	Amendment to give effect to the Minister's appeal determination (Appeal 036 of 2024)
Dd/mm/yyyy	W6908/2024/1	Works approval holder initiated amendment for changes to WWTP infrastructure, addition of geobags and an increased wastewater disposal (irrigation) area.

Interpretation

In this works approval:

(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 works approval:

  (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 works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

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

Construction phase

Infrastructure and equipment

1. The works approval holder must:

(a) construct and/or install the infrastructure and/or equipment;

(b) in accordance with the corresponding design and construction / installation requirements; and

(c) at the corresponding infrastructure location; as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
Malt processing			
1.	Malt processing facility consisting of: - an outdoor hardstand on which is placed : -4x grain silos -1x solid waste silo -5x malt storage vessels -grain cleaning vessel -steep vessel -germination vessel -kiln vessel -enclosed conveyors with drag chains Enclosed packaging shed with bagging equipment	(a) All conveyors must have an enclosed belt with a drag chain. (b) All vessels and silos must be enclosed. (c) Fans must be enclosed within the germination and kiln vessels. (d) Ducting must be installed capable of reducing fan noise in the kiln vessel. (e) All silos, vessels and the package shed must be connected by enclosed conveyors. (f) Steep, germination and kiln vessels must be installed within a concrete bunded hardstand fitted with an impervious sump to capture and contain wastewater or spills. (g) The impervious sump must be fitted with a sump pump to pump captured wastewater to the WWTP.	As shown in Schedule 1 Figure 2 as Intake grain Grain cleaner Steep tank Growing vessel Kiln Packing shed
Existing brewery			
2.	Existing brewhouse - maximum production capacity of <200kL/year of beer	(a) The brewery must be constructed so that all wastewater is capable of being discharged to the WWTP (b) The 1.5 kL brewery pretreatment, 4.18 kL primary and 2.1 kL secondary tanks must be connected in sequence with the secondary tank connected via pipelines to the 50 kL raw water tank. (c) The existing leach drains receiving the brewery wastewater must be decommissioned and unable to receive brewery wastewater.	N/A
Wastewater treatment plant			
3.	Wastewater treatment plant (WWTP) consisting of: - 25 kL black	(a) The 25 kL raw wastewater balance tank must be placed on a gravel hardstand and have a visual level gauge installed. (b) Desludging pump must be installed to allow sludge	As shown in Schedule 1, Figure 3 as Wastewater

	Infrastructure	Design and construction / installation requirements	Infrastructure location
	polyethylene above-ground raw wastewater balance tank - 11 kL polyethylene below-ground settling tank and associated desludging pump - Geobags (geotextile dewatering bags) - Anaerobic baffled reactor consisting of 4x 4 kL below-ground polyethylene tanks - Below-ground wet-well and associated submersible transfer pump - Ceramic membrane filter with a pore size of ≤300 µm	to be pumped from the settling tank to the geobags. (c) Geobags must be placed within a bunded hardstand area, sloped to allow leachate to drain to the settling tank. (d) The four 4 kL below-ground anaerobic baffled reactor tanks must be placed in series at increasing depth to allow wastewater to flow through the reactor tanks. (e) The inlet pipe tee for each of the four 4 kL below-ground anaerobic baffled reactor tanks must extend to the base of each tank to promote wastewater flow through the anaerobic sludge. (f) Below ground wet-well must have a submersible transfer pump that is capable of directing wastewater from the last anaerobic baffled reactor tank (tank 4) to the ceramic filter. (g) The ceramic filter must be located in a bunded hardstand area that is able to return any spills or backflush to the settling tank.	tank Settling Tank Geobags Tank 1, Tank 2, Tank 3 and Tank 4 Package wet well and submersible pump set Ceramic filter module, incl transfer pump to tank
Wastewater disposal (irrigation)			
4.	1.43 ha treated wastewater land application area (LAA) L1 (zones L1a, L1b, L1c, L1d, L1e, L1f) consisting of: -1.43 ha lawn planted with kikuyu -2x 50 kL irrigation holding poly tanks -flow metre (M2) -sample tap (M1) -sprinklers and polypipe connecting irrigation tank to LAA's -six zone control irrigation station with rain sensor	(a) A flow meter (M2) capable of recording cumulative flows of all wastewater discharged to the land application areas (L1 zones a, b, c, d, e, f) must be installed on the outlet from the 50 kL irrigation holding tank. (b) A sample tap (M1) must be fitted on the outlet from the 50 kL irrigation holding tank capable of taking representative wastewater samples of irrigation wastewater. (c) LAA's L1 (zones a, b, c, d, e and f) must be fitted with sprinklers capable of even coverage over the land application area. (d) An irrigation controller with a rain sensor must be fitted capable of rotating irrigation of wastewater through each of the 5 land application zones and switching off when rain is detected.	As shown in Schedule 1 Figure 1 as L1a, L1b, L1c, L1d, L1e, L1f Wastewater irrigation holding tanks Station controller As shown in Schedule 1 Figure 2 as Irrigation tank 1 Irrigation tank 2 M2 M1

Compliance reporting

2. The works approval holder must within 30 calendar days of all infrastructure and equipment required by condition 1 being constructed, installed or operated:

(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 suitably qualified technician that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;

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

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

4. Subject to condition 3(a), where the infrastructure or component of infrastructure has been certified as not being constructed, or does not comply with the corresponding requirements, or contains material defects, the works approval holder must:

(a) correct the non-compliant or defective works, prior to re-certifying in accordance with condition 3(a); or

(b) provide to the CEO a description of, and explanation for, any departures from the requirements specified in Table 1 that do not require rectification and do not constitute a material defect along with the Environmental Compliance Report required by condition 2.

Time limited operational phase

Commencement and duration

5. The works approval holder must only commence time limited operations of the infrastructure identified in condition 1 where the Environmental Compliance Report as required by condition 2 has been submitted to the CEO by the works approval holder.

6. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1 for a period not exceeding 300 calendar days from the day the works approval holder meets the requirements for condition 1.

7. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 are maintained and operated in accordance with the corresponding operational requirements set out in Table 2.

Table 2: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location-
1	Malt processing facility consisting of: - an outdoor hardstand on which is placed : -4x grain silos -1x solid waste silo -5x malt storage vessels -grain cleaning vessel -steep vessel -germination vessel -kiln vessel -enclosed conveyors with drag chains Enclosed packaging shed	(a) All wastewater and liquid spills from the steep and germination vessels within the concrete hardstand must be directed to the WWTP via the inground sump. (b) All grain and malt must be transferred between grain silos, vessels and packing shed via enclosed conveyors. (c) All solid waste from the grain cleaning, steep and kiln vessels must be transferred via enclosed conveyor to the solid waste silo before removed from the premises. (d) Any solid spills on the gravel, concrete hardstand or in the packing shed must be swept up immediately and disposed offsite.	As shown in Schedule 1 Figure 2 as Intake grain Grain cleaner Steep tank Growing vessel Kiln Packing shed

	Site infrastructure and equipment	Operational requirement	Infrastructure location-
	with bagging equipment		
2	Brewery processing building	(a) All beer must be manufactured inside an enclosed building. (b) All wastewater produced within the brewery building must be directed to the wastewater treatment plant.	N/A
3	Wastewater treatment plant (WWTP) consisting of: - 25 kL black polyethylene above-ground raw wastewater balance tank located on a gravel hardstand area - 11 kL polyethylene below-ground settling tank and associated desludging pump - Geobags (geotextile dewatering bags) located on a bunded hardstand area - Anaerobic baffled reactor consisting of 4x 4 kL below-ground polyethylene tanks - Below-ground wet-well and associated submersible transfer pump - Ceramic membrane filter with pore size ≤300 µm located on a bunded hardstand area.	(a) Not more than 30,000 litres of wastewater in any 24 hours may be directed to the WWTP. (b) All visible level sensors on tanks must be maintained in working order. (c) Wastewater must undergo pH, settling, anaerobic treatment and ceramic filtration before being discharged to the two 50 kL irrigation holding poly tanks. (d) Sludge from the settling tank must be directed to the geobag(s). (e) Leachate from the geobag(s) must be directed to the settling tank. (f) Solids and sludge from the geobags must be disposed of off-site to a premises that is lawfully able to accept that type of waste. (g) Any spills or backflush from the ceramic membrane filter must be directed to the settling tank.	As shown in Schedule 1, Figure 3 as Wastewater tank Settling tank Geobags Tank 1, Tank 2, Tank 3 and Tank 4 Package wet well and submersible pump set Ceramic filter module, incl transfer pump to tank
4	1.43 ha treated wastewater land application area (LAA) L1 (zones L1a, L1b, L1c, L1d, L1e, L1f) consisting of: 1.43 ha lawn planted with kikuyu -2x 50 kL irrigation holding poly tanks -flow metre (M2) -sample tap (M1) -sprinklers and polypipe connecting irrigation tank to LAA's -six zone control irrigation station with rain sensor	(a) Monitoring bores must be maintained and capable of taking water level readings and water samples. (b) All treated wastewater must be directed through the flow meter (M2) before discharging to the land application area L1 (zones a, b, c, d, e and f). (c) Flow meter (M2) must be maintained to enable the cumulative volume of wastewater discharged from the storage tanks to the land application area to be measured. (d) Sampling tap (M1) must be maintained and capable of taking representative irrigated wastewater. (e) No irrigation from 1 June to 31 July each year. (f) No more than 55 kL of wastewater to be irrigated from the 1 August to the 31 August inclusive with no irrigation to occur during or 24 hours after a rainfall event greater than 3mm. (g) Irrigation of wastewater between 1 September	As shown in Schedule 1, Figure 1 as MW1 and MW2 L1a, L1b, L1c, L1d, L1e, L1f Wastewater irrigation holding tanks Station controller As shown in Schedule 1, Figure 2 as Irrigation tank 1 Irrigation tank 2 M2 M1

	Site infrastructure and equipment	Operational requirement	Infrastructure location-
		to 31 May is not permitted during a rainfall event or within 24 hours after a rainfall event greater than 10 mm. (h) Wastewater must only be discharged onto actively growing kikuyu grass. (i) All wastewater irrigated grass must be mowed, and the kilograms of biomass harvested recorded. (j) Weekly visual inspections to be undertaken to ensure the irrigation system is working effectively with no leaks, blockages, and irrigating wastewater evenly over the irrigation areas. Inspections must be recorded in a logbook, with the date of inspection, name and signature of the inspector recorded.	

8. Where treated wastewater cannot be irrigated or stored on-site, it must be removed from the premises by a licensed controlled waste carrier to a licensed liquid waste facility.

Time limited operations emissions and discharges

9. The works approval holder during time limited operations, must ensure that the emissions from the discharge point in Table 3 do not exceed the corresponding limit(s) when monitored in accordance with condition 11.

Table 3: Emission and discharge limits during time limited operations

Discharge point	Parameter	Limit
L1 (zones L1a, L1b, L1c, L1d, L1e, L1f) as shown in Schedule 1, Figure 1	Total nitrogen	≤ 284 kg/ha/annual period
	Total phosphorus	≤ 24 kg/ha/annual period
	Biological oxygen demand	≤ 1,500 kg/ha/month
	pH	Between 5.5 – 9.0
	Electrical conductivity	Wastewater concentration ≤ 290 mS/m
	Sodium adsorption ratio (SAR)	Wastewater concentration ≤ 6

Monitoring during time limited operations

10. The works approval 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 groundwater sampling is conducted in accordance with AS/NZS 5667.11;

(d) all soil sampling is conducted in accordance with AS/NZS 4482.1; and

(e) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

11. The works approval holder must monitor emissions during time limited operations accordance with Table 4.

Table 4: Emissions and discharge monitoring during time limited operations

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit
L1 (zones L1a, L1b, L1c, L1d, L1e, L1f) As outlined in Schedule 1, Figure 1	WWTP outflow M1 and M2 as outlined in Schedule 1, Figure 2	Volumetric flow	Continuous	Daily	kL
		pH[1]	monthly when irrigating	spot sample	-
		Electrical conductivity[1]			mS/m
		Total nitrogen			mg/L
		Nitrate/Nitrite			
		Total phosphorus			
		Phosphate			
		Total dissolved solids			
		Total suspended solids			
		Biological oxygen demand			
		Total organics			
		Sodium adsorption ratio (SAR)			-
		Calcium			mg/L
		Magnesium			
		Potassium			
		Sodium			

1 In field non-NATA accredited analysis permitted for pH and electrical conductivity.

12. The works approval holder must monitor soil during environmental time limited operations for concentrations of the identified parameters in accordance with Table 5.

Table 5: Monitoring of ambient soil concentrations during time limited operations

Monitoring location as outlined in Schedule 1 Figure 1	Parameter	Unit	Frequency
Zones L1a, L1b, L1c, L1d, L1e, L1f: Surface composite sample, comprising 2 samples collected from 0-10 cm across each irrigation zone Soil profile composite sample, comprising of 1 sample collected from 50 - 60 cm across each irrigation zone.	pH	-	Once within the time limited operations period and there after every five years in November.
	Electrical conductivity	dS/cm	
	Total nitrogen	mg/kg	
	Nitrate/nitrites	mg/kg	
	Total kjeldahl nitrogen		
	Total phosphorus		
	Phosphate		
	Sodium absorption ratio (SAR)	-	
	Cation exchange capacity (CEC)	-	

Monitoring location as outlined in Schedule 1 Figure 1	Parameter	Unit	Frequency
	Exchangeable cations for potassium, sodium, calcium, magnesium, and aluminum	meg/100g	
	Phosphorus buffering index (PBI)	-	

13. The works approval holder must monitor groundwater during time limited operations for concentrations of the identified parameters in accordance with Table 6.

Table 6: Monitoring of ambient groundwater concentrations during time limited operations

Monitoring location	Parameter	Unit	Frequency	Averaging period
MW1 MW2 as outlined in Schedule 1 Figure 1	Standing water level	m(AHD) and mBGL	Quarterly in March, June, September and December	In-field measurement
	pH	-		
	Electrical conductivity	mS/m		
	Total nitrogen	mg/L		Spot sample
	Total phosphorus			
	Biological oxygen demand			
	Total dissolved solids			

14. The works approval holder must ensure that:

(a) the results of all monitoring activity required by conditions 11, 0 and 13 are recorded;

(b) monitoring is undertaken in each daily period such that there are at least 12 hours in between the time on which samples are taken in successive days; and

(c) 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.

Compliance reporting

15. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days following the completion date of time limited operations.

16. The works approval holder must ensure the report required by condition 15 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of malt and alcoholic beverage produced;

(b) a summary of wastewater, soil and groundwater quality results obtained during time limited operations under conditions 11, 0 and 13;

(c) a summary of wastewater irrigation loading levels;

(d) a review of operational performance and compliance against the conditions of the works approval;

(e) a summary of the biomass including estimated tonnages removed from the irrigation area; and

(f) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

17. The works approval holder must record the following information in relation to complaints received by the works approval 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 works approval holder to investigate or respond to any complaint.

18. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

(a) the works conducted in accordance with condition 1;

(b) any maintenance of infrastructure that is performed while complying with condition 7;

(c) monitoring programmes undertaken in accordance with conditions 11, 0 and 13; and

(d) complaints received under condition 17.

19. The books specified under condition 18 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 works approval holder for the duration of the works approval; and

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

20. The works approval holder must notify the CEO within 7 days of becoming aware that they no longer have access to part of Lot 4 on Plan 61342 as defined by the coordinates, and shown in Schedule 1, Figure 1.

Definitions

In this works approval, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
AHD	Australian Height Datum
Annual period	12 month period commencing from 1 June until 31 May of the immediately following year
AS 4482.1	means the current version of Australian Standard AS 4482.1 -2005 Guide to the investigation and sampling of sites with potentially contaminated soils – non volatile and semi volatile compounds.

Term	Definition
AS/NZS 5667.1	means the current version of Australian / New Zealand Standard AS/NZS 5667.1 Water Quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples
AS/NZS 5667.10	means the current version of Australian / New Zealand Standard AS/NZS 5667.10 Water Quality – Sampling, Part 10: 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
averaging period	means the time over which a limit is measured or a monitoring result is obtained
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
certified technician	means a person who: (a) holds a certificate 3 or higher qualification in horticulture and / or wastewater management; and has a minimum of at least three years of experience working in horticulture, irrigation and/or wastewater management.
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
hardstand	means a surface with a permeability of 1 x 10^{-9} metres per second or less
harvest	means mowing / cutting and removing from the site such as lawn clippings.
mBGL	means metres below ground level
mg/L	milligrams per litre
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
mg/L	milligrams per litre
premises	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 works approval.

Term	Definition
prescribed premises	has the same meaning given to that term under the EP Act.
rainfall event	means greater than or equal to 2 mm of precipitation within a 24-hour period
spot sample	means a discrete sample representative at the time and place at which the sample is taken
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

Figure 1: Map of the boundary of the prescribed premises in pink, yellow is the malt and WWTP facility, green are the irrigation areas, and red dots monitoring well locations.

Site layout – Map 1

The site layout of the malting facility is shown in the map below (Figure 2).

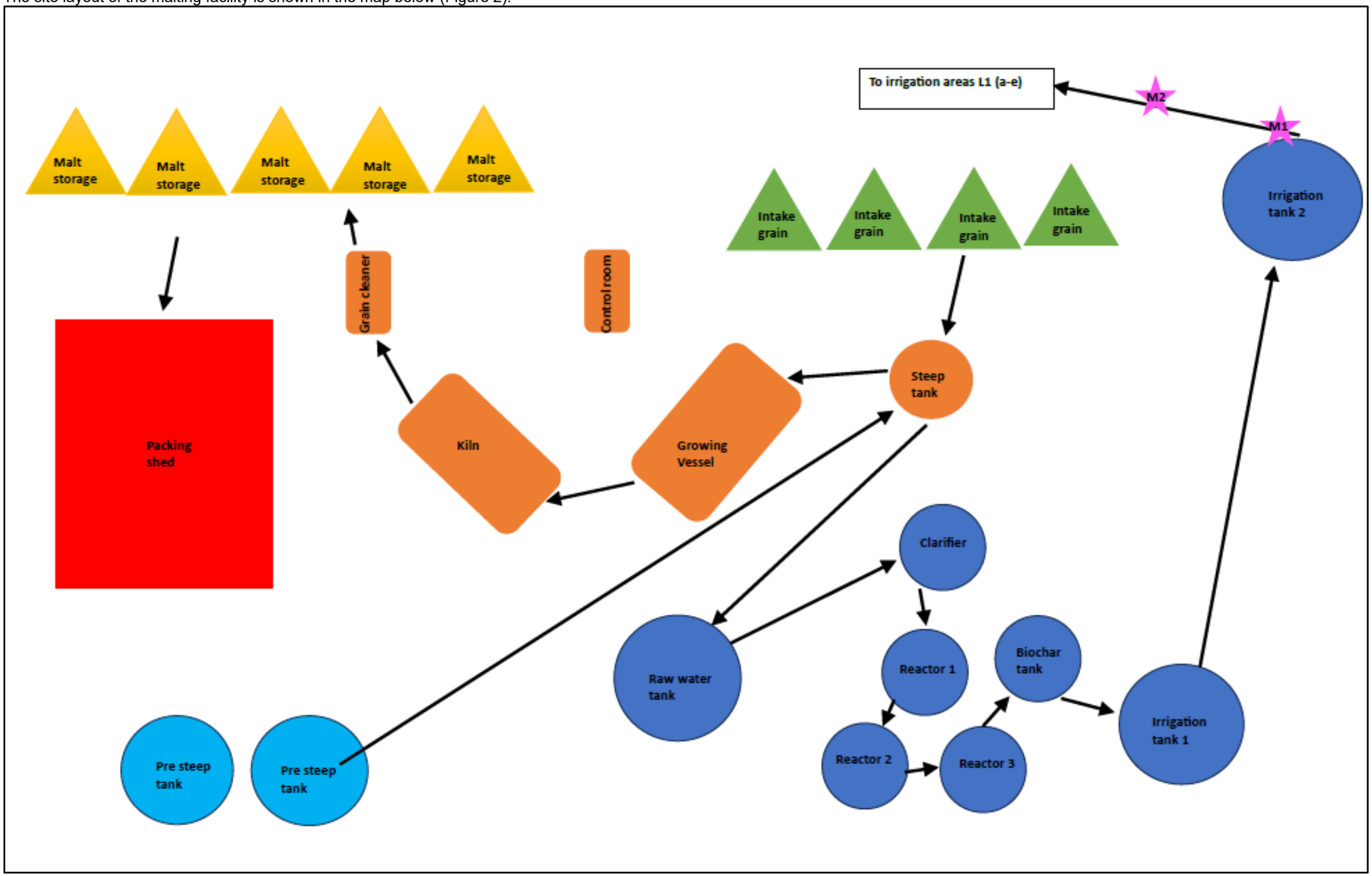

Figure 2: Malt facility site layout within the prescribed premises

Site layout – Map 2

The site layout of the proposed WWTP is shown in the map below (Figure 3).

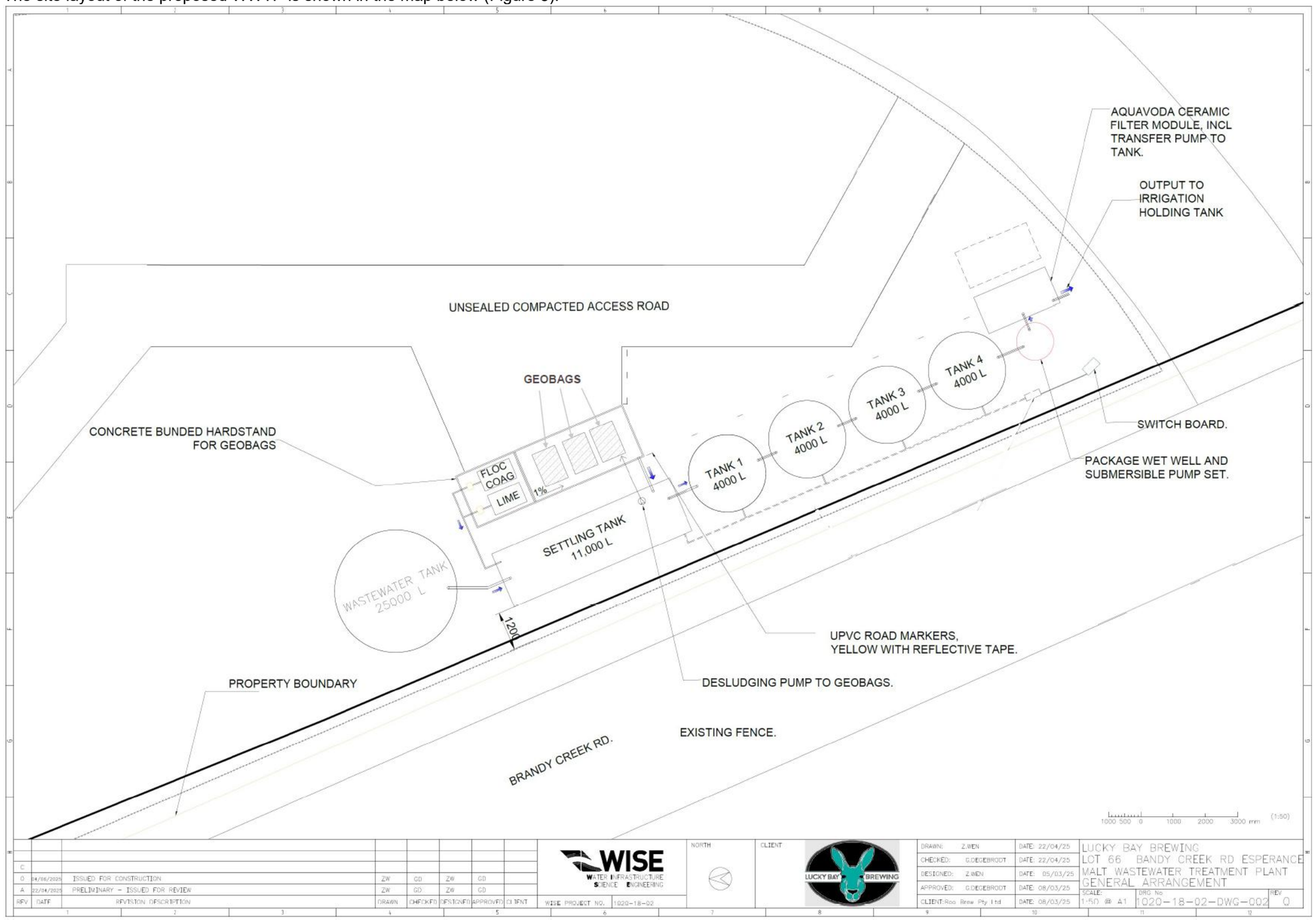

Figure 3: Proposed WWTP facility site layout