Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Works Approval Amendment

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

Works Approval Number	W6908/2024/1
Works Approval Holder	Roo Brew Pty Ltd
ACN	654 500 017
File Number	DER2024/000055
Premises	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 of the Revised Works Approval.
Date of Report	11/02/2026
Decision	Revised works approval granted

1. Decision summary

Works Approval W6908/2024/1 is held by Roo Brew Pty Ltd (works approval holder) for Lucky Bay Brewing (the premises), located at 66 Bandy Creek Road, Esperance.

This amendment report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges from the amended wastewater treatment plant system design, addition of geobags and an increase to the wastewater disposal (irrigation) area. As a result of this assessment, revised works approval W6908/2024/1 has been granted.

The revised works approval issued because of this amendment supersedes the works approval previously granted in relation to the premises.

2. Purpose and scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this amendment report, the Department of Water and Environmental Regulation (department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at www.dwer.wa.gov.au/regulatory-documents.

2.2 Existing premises and background

The premises has an existing brewery (operating since 2019) that was not constructed under the Environmental Protection Act 1986 (EP Act) due to being below the prescribed threshold.

Works approval W6908/2024/1 was issued to Roo Brew Pty Ltd on 13 June 2024 for the construction and installation of a malt processing plant, wastewater treatment plant (aerobic system) and wastewater disposal of treated wastewater to land (0.57 ha).

The works approval was amended in February 2025 to give effect to the Minister's appeal determination (removal of category 25 from the prescribed premises category description).

2.3 Application summary

On 14 October 2025 the Works Approval Holder submitted an application to the department to amend Works Approval W6908/2024/1 under section 59 and 59B of the EP Act. The following amendments are being sought:

- Changing the design of the wastewater treatment plant (WWTP) from an aerobic above ground tank system to an anaerobic below ground system.
- Addition of geobags in a bunded area for the desludging of the WWTP.
- Increase to the proposed irrigation area from 0.57 ha to 1.43 ha, which will increase the prescribed premises boundary.

No changes to the existing brewhouse, groundwater monitoring wells or malt processing facility (construction in progress) are being proposed with this amendment.

2.4 Proposed changes to operation (from application)

Wastewater treatment plant
The works approval holder has amended the design of the proposed WWTP from an aerobic to an anaerobic system (see Figure 1) as the treatment process will require long periods (1 to 12 weeks) without wastewater inflow due to irrigation restrictions during winter (existing conditions of the works approval). They have stated that high biological oxygen demand

(BOD) loaded wastewaters can be effectively treated with anaerobic biological processes which can withstand long periods without influent due to the slower biological process.

The anaerobic WWTP capacity has been designed for a maximum daily throughput of 6.5 kL/day.

Brewery wastewater (after primary (septic) treatment) and malt production wastewater will be combined in a wastewater balance tank prior to being directed to a below-ground solids settling chamber. The balance tank will be used to manage wastewater inputs of up to 18.25 kL/day.

Lime dosing will occur at the inlet to the solids settling chamber for pH correction. A non-aluminium coagulant will be added to the solids settling chamber to increase the settling of suspended solids, removing contaminants.

The wastewater will then be directed to an anaerobic baffled reactor which will consist of four modified below-ground septic chambers in sequence. The critical modification will be to extend the inlet pipe tee to the base of the tank to promote wastewater flow through the anaerobic sludge 'blanket'.

Finally, the wastewater will pass through a ceramic membrane filter to further remove nitrogen and phosphorus prior to the wastewater being directed to the wastewater irrigation holding tanks.

The works approval holder has stated that no disinfection is planned due to the unknown pathogen risk in the wastewater which they will investigate once the WWTP is operational.

The anaerobic process will target methanogenesis for BOD and chemical oxygen demand (COD) digestion with the preferable temperature range being 25℃ to 40℃. Due to the colder, winter ambient air temperatures in Esperance, the design of the WWTP intends to capture the hot wastewater and retain the heat in an above-ground black polyethylene wastewater balance tank and the underground treatment tanks.

Desludging and solids management

The initial settling tank will be desludged into geobags. The geobags will be located within a concrete bunded area with a 1% slope such that any leachate will drain back to the settling tank. The resulting waste solids will be removed from the site, likely to landfill.

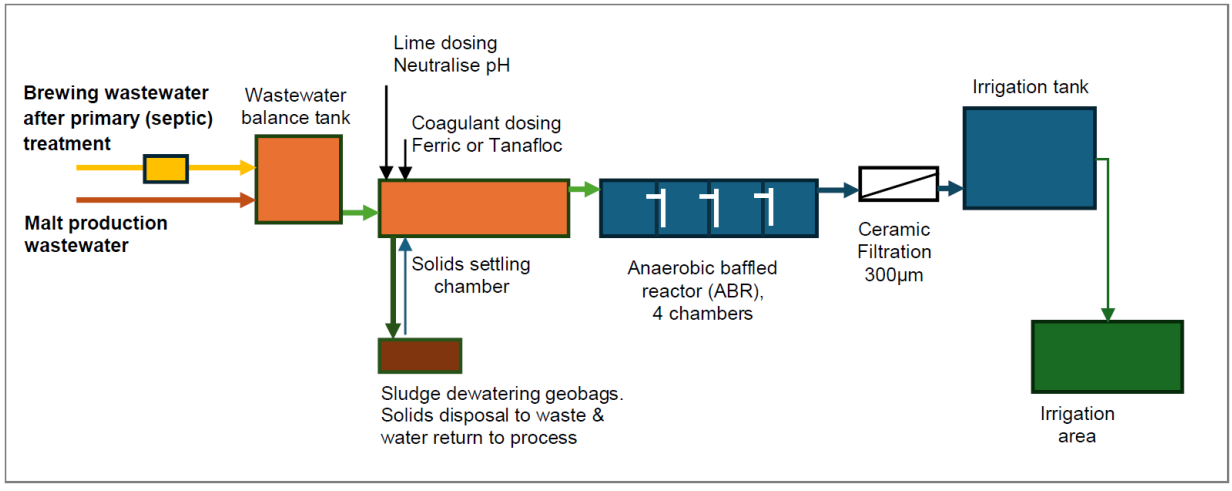

Figure 1: Proposed wastewater treatment plant layout and flow pathway

Additional land application area (irrigation)

The works approval holder is proposing to increase the size of the irrigation area from 0.57 ha to 1.43 ha. The additional 0.86 ha area is located on part of Lot 4 on Plan 61342, immediately east of the existing premises. Lot 4 is owned by the Tijuk Foundation Pty Ltd, a wholly owned subsidiary of the Esperance Tjaltjraak Native Title Aboriginal Corporation RNTBC, of which

Lucky Bay Brewing has an informal lease agreement.

The informal lease agreement includes that Lucky Bay Brewing will maintain the fire break area as mowed kikuyu. Tijuk understand that the water intended for irrigation on this area is treated wastewater from the brewing and malting process as per discharge conditions set by the department by the works approval and any subsequent licence.

The works approval holder only intends to irrigate this additional area when the evapotranspiration of the kikuyu in the existing irrigation areas nears rainfall rates, which is likely to be in the months of May or June. They have included the area as a buffer to ensure they have a sufficiently large area for wastewater disposal.

Proposed wastewater quality

Table 1 shows expected brewery and malt process wastewater quality and expected treated wastewater quality (all supplied by the works approval holder). The typical range of brewery wastewater (used in the previous assessment) has also been included, along with relevant guidelines and other typical effluent quality with differing levels of treatment.

Table 1: Wastewater quality (supplied by the applicant)

Source	BOD mg/L	COD mg/L	TDS mg/L	TSS mg/L	TN mg/L	TP mg/L	pH
Lucky Bay Brewing Brewery wastewater[1]	2,500	5,000		550	25	10	4
Malt Process wastewater[2]	2,500	3,700		600	85	37.8	5.5
Works approval holder supplied post treatment wastewater quality[3]	30			10	20	10	6.5 – 7.5
Typical range of raw brewery wastewater[4] (used in previous assessment)[5]	1,200 – 3,600				25 – 80	10 – 50	4.5 – 12
Primary effluent quality following treatment[6]	120 – 250				30 – 55	6 – 14	
Secondary effluent quality following nutrient removal treatment[6]	20 – 30				10 – 50	6 – 12	
Nutrient removal effluent quality following nutrient removal treatment[6]	5 – 20				5 – 20	<2	
ANZECC 2000 – Primary Industries[7]	<15		3,000		25 – 125[8]	0.8 - 12[8]	6 – 9

[1] Brewery wastewater sampled on 15 April 2024, provided by the works approval holder.
[2] Malt Process wastewater provided by the works approval holder, which has been referenced from *Biodegradability evaluation of wastewaters from malt and beer production* (Mielcarek et al 2013) and *Advanced water treatment plant constructed* (Tamworth malt facility 2011).
[3] Works approval holder has stated that the treatment process has been modelled and designed based on an assumed malt wastewater quality. The final process will be subject to optimisation for the actual Lucky Bay malt steeping process. This will include optimisation of any additional coagulant dosing at the ceramic filters.
[4] Kebede, T. B. 2018. *Waste water treatment in brewery industry*, Review. International Journal of Engineering Development and Research, Volume 6, Issue 1. Available at: https://rjwave.org/ijedr/papers/IJEDR1801124.pdf
[5] Department of Water and Environmental Regulation 13 June 2024, *Decision Report – Lucky Bay Brewing*.
[6] Treatment process category D from Appendix 6 of ARMCANZ and ANZECC 1997. *National Water Quality Management Strategy – Australian Guidelines for Sewerage Systems – Effluent Management.* Commonwealth of Australia (NWQMS).
[7] National Water Quality Management Strategy Paper No. 4 – Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Volume 3 Primary Industries, 2000, ANZECC and ARMCANZ. (ANZECC 2000)
[8] ANZECC 2000 requires site specific assessment to determine actual value.

It is noted that the works approval holder supplied malt process wastewater quality is slightly higher for TN (85 mg/L) than the concentration used in the previous assessment as worst case scenario (80 mg/L). However, it is understood that the brewery and malt process wastewater will shandy each other in the pre-treatment wastewater balance tank when combined.

Volumes of wastewater

The works approval holder has based expected irrigation volumes on existing treated

wastewater quality and nutrient loading rates specified for time limited operations in the existing works approval. They have stated that maximum irrigation flow is expected to be 14.7 kL/ day (most likely in December and/or January) with minimum flows of no irrigation expected during June, July and/or August.

3. Consultation

Table 2 provides a summary of the consultation undertaken by the department.

Table 2: Consultation

Consultation method	Comments received	Department response
Local Government Authority (LGA) Shire of Esperance advised of proposal on 20 November 2025.	No comments received.	N/A
Department of Health (DoH) advised of proposal on 20 November 2025.	Comments were received from DoH on 9 December 2025 and included the following: • DoH has issued an in-principal approval for irrigation within Lot 66. Irrigation within Lot 4 was not included in the application and therefore has not been approved. • DoH does not support irrigation of wastewater on a different Lot to that which it is produced. • The proposed irrigation area is located within the firebreak. Under regulation 18A(2) of the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974* an irrigation area cannot be located in, or within 1.2 m of, an area subject to vehicular traffic. • DoH requires the applicant to submit an updated recycled water management plan for review.	Noted. An instrument granted by the department only provides a defence for the occupier under Part V, Division 3 of the EP Act, provided the conditions contained within the works approval or licence have been complied with and not for any offences under other legislation.
Works approval holder was provided with draft documents on 15/01/2026	Comments were received on 6 February 2026 and included the following: • Request “broad acre agricultural paddocks” as a potential offsite disposal option for solids and sludge waste from the geobags. • Request removal of “kilograms” and “harvested” in relation to wastewater irrigated grass being mowed and amount of harvested biomass recorded.	Solids and sludge waste from the geobags being applied to land has the potential to cause odour emissions, groundwater contamination and soil degradation from the nutrient rich waste. Onsite disposal of this waste has not been assessed as it was not requested by the works approval holder. The delegated officer has determined that this condition will remain unchanged such that this waste must be disposed of off-site to a premises that is lawfully able to accept that type of waste. Any off-site premises accepting the waste must meet this requirement. Harvesting (removal of biomass) within areas irrigated with wastewater ensures that nutrients taken up by the plants are removed from the premises. The recording of this removed biomass (in volume or weight) allows for the

		calculation of nutrients removed. The delegated officer has determined for the condition to remain as-is.
	• Addition of “monthly” when reporting irrigation system inspections.	The existing condition requires weekly visual inspections of the irrigation system to be undertaken. The delegated officer considers it appropriate to record these inspections as they occur. It is noted that this is recording, not reporting, of the inspections.
	• Other administrative amendments requested to enable different types/brands of infrastructure and equipment to be installed / constructed.	Other administrative amendments have been made in the relevant documents.

4. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020). To establish a risk event there must be an emission, a receptor that may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

Table 3 describes the risk events associated with the proposed changes to the premises, consistent with the *Guideline: Risk Assessments*. In accordance with this guideline, the delegated officer has excluded employees, visitors, and contractors of the works approval holder’s from its assessment of the proposed changes. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Where the works approval holder has proposed mitigation measures/controls, these have been considered when determining the final risk rating. Where the delegated officer considers the works approval holder’s proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the works approval holder’s controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in the table below.

Revised works approval W6908/2024/1 that accompanies this amendment report authorises emissions associated with the proposed changes to the premises. The conditions in the revised works approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DWER 2015).

A licence is required following the time limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises. A risk assessment for the operational phase of the proposed changes has been included in this amendment report; however, licence conditions will not be finalised until the department assesses the licence application.

The risk assessment for construction and operation of infrastructure not proposing to change has been previously assessed, with the decision report (dated 13 June 2024) remaining on the department’s website.

Table 3. Risk assessment of potential emissions and discharges from the proposed changes to the premises during construction and operation

Risk Event				Risk rating C = consequence L = likelihood	Reasoning	Regulatory controls
Source/Activities	**Potential emissions**	**Potential pathways, receptors and impact**	**Works approval holder controls**			
Construction						
The installation of the WWTP, including vehicle movements (reversing beepers), construction of gravel and concrete hardstands and pipeline trenches has previously been assessed. While some infrastructure has proposed to change, the delegated officer does not consider noise impacts to sensitive receptors to be significantly different to what has already been assessed. Therefore, has determined that re-assessment is not required.					Standard works construction, compliance and reporting conditions were included in the existing works approval. Some amendments have been made to the standard conditions to refer to the changed design of the WWTP infrastructure.	**Existing conditions** Condition 1: Design and construction / installation requirements of the WWTP – amended to reflect proposed WWTP system change Conditions 2 – 4: Compliance reporting Conditions 20 – 22: Records and reporting (general)
Operation						
Management of alcohol and malt manufacturing wastewater – below-ground anaerobic WWTP system. *Previously assessed as an above-ground aerobic WWTP system.*	Odour from wastewater processing	Air / windborne pathway causing impacts to health and amenity. Residences 350 m SW, 530 m NNW and 950 m W of proposed WWTP.	• Settling tank and anaerobic baffled reactor (4 tanks) will be located below-ground and are enclosed. • Settling tank and anaerobic baffled reactor tanks will be modified septic tanks and will be manufactured to Australian Standard AS/NZS 1546.1. • Desludging pump to pump sludge from the settling tank to the geobags. • Anaerobic baffled reactor (four tanks) will be placed in series, at increasing depth to allow for wastewater flow. • The inlet pipe tee for each tank will be modified to extend to the base of each anaerobic baffled reactor tank to promote wastewater flow through the anaerobic sludge. • September 2025 groundwater monitoring data showed the groundwater level at 4.1 and 4.2 mbgl, after a wet winter. Groundwater will not rise to the depth of the underground WWTP tanks. • Flows entering the system and flows discharged to irrigation will be monitored to detect any leaks in the WWTP infrastructure. • Wet-well submersible pump to direct wastewater from tank 4 of the anaerobic baffled reactor to the ceramic membrane filter. • Ceramic membrane filter and any future wastewater recovery equipment will be housed in a bunded area with any spills or backflush to be returned to the settling tank. • Above-ground wastewater balance tank has a visual level gauge to monitor available wastewater storage volumes; and will be visually monitored.	C = Slight L = Possible **Low Risk**	With the nature of wastewater, there is an inherent risk of odour causing impacts to offsite receptors, particularly from wastewater stored in tanks for a period. The delegated officer has considered the distance to receptors, and the design of the proposed WWTP (mostly below-ground) and has determined the risk to be low. Works approval holder controls will be conditioned to ensure the risk event remains low.	**Existing conditions** Conditions 8 – 9: Time limited operational phase – commencement and duration Condition 10: Operational requirements **Works approval holder controls conditioned** Condition 10: Operational requirements
	Leaks of wastewater contaminants with nutrient laden wastewater from underground tanks and pipework. Leaks and overtopping from above-ground tanks.	Seepage of untreated and treated wastewater to soil and groundwater. Groundwater 2 – 4 mbgl. Bandy Creek is approximately 600 m SW of proposed WWTP.		C = Minor L = Unlikely **Medium Risk**	Wastewater from the brewery and malt facilities drains to the wastewater balance tank before being transferred to a settling tank followed by four anaerobic baffled reactor tanks. The wastewater then passes through a ceramic filter before being transferred to the irrigation holding tanks. The delegated officer has considered the design of the proposed WWTP, distance to receptors and works approval holder proposed controls and has determined the risk to be medium. Relevant existing conditions will remain on the works approval, with some conditions amended to reflect works approval holder controls for the proposed change to the WWTP design (below ground anaerobic system rather than an above ground aerobic system) to ensure the risk is minimised.	
Management of sludge in geobags	Odour from storage of sludge in geobags	Air / windborne pathway causing impacts to health and amenity. Residences 350 m SW, 530 m NNW and 950 m W of proposed WWTP.	• Geobags located on a bunded hardstand. • Hardstand 1% slope to direct leachate back to settling tank. • Solid waste removed from site (once sufficiently dewatered).	C = Slight L = Unlikely **Low Risk**	The delegated officer considers that the separation distance between the proposed geobag location and potential receptors is sufficient. The delegated officer notes that the geobags will be located on a bunded, sloped hardstand with leachate draining back to the settling tank, which is enclosed. A definition for hardstand has been included on the works approval to ensure appropriate material is used. No additional regulatory controls are required; however, works approval holder controls will be conditioned to ensure the risk is minimised.	
	Leachate from drying of sludge in geobags	Overtopping, runoff and seepage – potentially contaminating soil and groundwater. Sandy soils. Groundwater 2 – 4 mbgl. Bandy Creek approximately 600 m WW of proposed WWTP.				

Risk Event				Risk rating C = consequence L = likelihood	Reasoning	Regulatory controls
Source/Activities	**Potential emissions**	**Potential pathways, receptors and impact**	**Works approval holder controls**			
On-site disposal of wastewater via irrigation – increase in land disposal area (irrigation) from 0.57 ha to 1.43 ha.	Nutrient rich wastewater to land Wastewater to land with excessive hydraulic loading	The discharge of wastewater to land through irrigation potentially contaminating soil, ground and surface waters on the premises and surrounding lands. Groundwater 2 – 4 mbgl, licenced groundwater user 1.2 km W of premises. Bandy Creek approximately 480 m N, 520 m W and 590 m SW of premises. RAMSAR ecosystem 720 m NE and 740 m N of premises.	• Flocculant and lime will be added in initial flows of the WWTP to balance pH and reduce phosphate concentration in the wastewater. • Wastewater throughputs are limited by existing DWER works approval conditions – treated effluent quality and nutrient loading rates for irrigation. • All irrigation areas are currently annual pasture and kikuyu. • Additional 0.86 ha irrigation area will only be utilised when the evapotranspiration of the kikuyu nears rainfall rates – this is likely to be May or June, but is seasonally dependent. The inclusion of this area is only as a buffer to ensure we have sufficient area for wastewater disposal.	C = Moderate L = Possible **Medium Risk** C = Moderate L = Unlikely **Medium Risk**	A preliminary assessment of the nutrient loading rates (nitrogen, phosphorus and biological oxygen demand) at the premises was previously completed for an irrigation area of 0.57 ha (DWER Decision Report 13 June 2024). BOD levels were determined to be sufficient, with phosphorus loading levels having potential to be high based on the worst-case scenario. The risk of the irrigation of nutrient-rich wastewater impacting on the surrounding environment was previously assessed as medium. A preliminary assessment of the hydraulic loading at the premises was previously completed for an irrigation area of 0.57 ha (DWER Decision Report 13 June 2024); which found that the size of the irrigation area was sufficient to enable moisture seepage into groundwater from irrigation. Additionally, the previous hydraulic loading assessment found that the delegated officer considered that rainfall event management was required to reduce the risk of hydraulic overloading, particularly for June to August where rainfall exceeds evaporation. The department acknowledges that a larger irrigation area may reduce nutrient loading as the same amount of wastewater is able to be spread over a larger area. However, as the works approval holder has indicated that the additional irrigation area (part of Lot 4 on Plan 61342) will be utilised when required with no proposed changes to the operation of the existing irrigation areas; the delegated officer considers that the risk has not significantly changed from the previous assessment and existing conditions of the works approval are sufficient. The additional irrigation area will be included on the works approval. As the works approval holder has indicated they have an informal lease agreement for access to part of Lot 4 on Plan 61342 the delegated officer has determined to include a condition for the works approval holder to notify the CEO if they no longer have access to the additional irrigation area. No other additional regulatory controls are required.	**Existing conditions** Condition 1: Amended to include additional 0.86 ha irrigation area (L1f) Condition 10: Time limited operational requirements – amended to include additional 0.86 ha irrigation area (L1f) Condition 12: Emission and discharge limits during time limited operations – amended to include L1f Condition 13: Collection of wastewater, groundwater and soil samples Condition 14: Wastewater quality monitoring – amended to include L1f Condition 15: Soil monitoring – amended to include L1f Condition 16: Groundwater quality monitoring Conditions 18 – 19: Compliance reporting for time limited operations Conditions 20 – 22: Records and reporting (general) **Premises boundary** Part of Lot 4 on Plan 61342 (with works approval holder supplied GPS coordinates) has been added to the premises boundary for the inclusion of the additional 0.86 ha. **Additional regulatory controls** Condition 23: Notification of any access changes to part of Lot 4 on Plan 61342

5. Decision

Based on the assessment in this report, the delegated officer has determined that the proposed changes do not pose an unacceptable risk of impacts to sensitive receptors. Existing conditions remain on the works approval, where relevant, and works approval holder controls have been imposed as they are considered reasonable and appropriate to maintain an acceptable level of risk (see section 4).

Proposed WWTP and geobags
Existing conditions in the works approval relating to the previous above-ground aerobic WWTP system have been removed, with design/installation requirements and works approval holder controls for the below-ground anaerobic WWTP system and proposed geobags being included on the works approval (see sections 4 and 6.1).

Additional irrigation area
The delegated officer considered the department's previous risk assessment (see section 4), and that there are no proposed changes to the operation of the irrigation area, besides the additional area being utilised when required; and determined that the risk of the disposal of wastewater to land impacting on receptors has not significantly changed, with existing conditions of works approval being sufficient.

An additional 0.86 ha area (L1f) has been included on the works approval, which has increased the prescribed premises boundary.

Additionally, a notification condition has been included on the works approval for the works approval holder to notify the department if the informal lease arrangement, currently permitting access to part of Lot 4 on Plan 61342 (L1f), changes or expires whereby access to the part lot is no longer available.

Groundwater monitoring wells – administrative amendment
Groundwater monitoring wells MW1 and MW2 were constructed on 1 May and 29 April 2025 respectively with well construction logs, surveyed data and a map being submitted in August and September 2025. The department notes that the well construction report was submitted more than 30 days after construction of the groundwater monitoring wells.

As the groundwater monitoring wells have been constructed and subsequent documentation submitted, the delegated officer has determined to remove the relevant conditions and definitions from the works approval. This is considered an administrative amendment and does not alter the existing risk assessment.

Prescribed premises – administrative amendment
Cadastral information for the prescribed premises has been updated to reflect the correct cadastral details.

Additionally, as above, the additional 0.86 ha irrigation area has been included on the works approval. The part lot that this additional irrigation area is located on has been included as part of the premises boundary, with GPS coordinates (provided by the works approval holder) being included in Schedule 1 of the works approval.

6. Conclusion

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

6.1 Summary of amendments

Table 4 provides a summary of the proposed amendments and will act as record of

implemented changes. All proposed changes have been incorporated into the revised works approval as part of the amendment process.

Table 4: Summary of works approval amendments

Existing relevant section or condition number	Revised condition number	Description of amendments to condition
Front page	Front page	Added date of issue. Updated premises details to reflect correct cadastral description. Added "part of Lot 4 on Plan 61342" to premises description (to include additional irrigation area). Clarified premises maps are in Schedule 1.
1, Table 1 *Design and construction / installation requirements*	1, Table 1 *Design and construction / installation requirements*	Amended "concrete" to "impervious" where it refers to concrete sump in row 1. Removed reference to aerobic WWTP infrastructure and added anaerobic WWTP infrastructure. Updated to include the additional 0.86 ha irrigation area (L1f). Amended "seven" to "six" zone control irrigation station in row 4. Clarified some infrastructure locations.
5, 6 and 7 *Installation of monitoring wells and construction report*	N/A	Removal of conditions.
9 *Duration of time limited operations*	6 *Duration of time limited operations*	Removed reference to existing condition 6 (submission of well construction report) as this report has been submitted.
10 *Time limited operations – operational requirements*	7 *Time limited operations – operational requirements*	Removed reference to infrastructure details, operational requirements and infrastructure location for the aerobic WWTP. Added infrastructure details, operational requirements and infrastructure location for the anaerobic WWTP. Updated to include the additional 0.86 ha irrigation area (L1f). Clarified some infrastructure locations.
12 *Time limited operations emissions and discharges*	9 *Time limited operations emissions and discharges*	Added additional 0.86 ha irrigation area (L1f).
14 *Wastewater quality monitoring*	11 *Wastewater quality monitoring*	Added additional 0.86 ha irrigation area (L1f).
15 *Soil monitoring*	12 *Soil monitoring*	Added additional 0.86 ha irrigation area (L1f).
23 *Notification for access to irrigation area*	20 *Notification for access to irrigation area*	Added condition.
Definitions	Definitions	Updated annual period definition to match existing standard condition wording. Removed definition for ASTM D5092/D5092M-16 as installation of monitoring wells conditions have been removed. Added definition for hardstand.
Schedule 1: Maps	Schedule 1: Maps	Updated premises map to include: - part of Lot 4 on Plan 61342 as part of the premises boundary - GPS coordinates for SW, NW, NE and SE corners of part of Lot

		4 on Plan 61342 - additional irrigation area L1f - location of the wastewater irrigation holding tanks Site layout – Map 1 – removed reference to WWTP as this shows the previously proposed aerobic WWTP. Added Site layout – Map 2 to show proposed anaerobic WWTP site layout. Removed Monitoring well installation diagram.

References

1. ANZECC and ARMCANZ 1997, National Water Quality Management Strategy – Australian Guidelines for Sewerage Systems – Effluent Management, Commonwealth of Australia.
2. ANZECC and ARMCANZ 2000, National Water Quality Management Strategy Paper No. 4 – Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Volume 3 Primary Industries, Commonwealth of Australia.
3. Department of Water and Environmental Regulation (DWER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
4. DWER 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
5. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
6. Kebede, T.N. 2018, *Waste water treatment in brewery industry, Review.* International Journal of Engineering Development and Research, Volume 6, Issue 1. Available at: https://rjwave.org/ijedr/papers/IJEDR1801124.pdf
7. DWER 13 June 2024, *Decision Report – Lucky Bay Brewing*, Perth, Western Australia.