Government of **Western Australia**
Department of **Water and Environmental Regulation**

Annual Audit Compliance Report Form

Environmental Protection Act 1986, Part V

Section A – Licence Details			
Licence number:	L9132/2018/1	Licence file number:	DER/2018/000586
Licence holder:	The Beer Farm Pty Ltd		
Trading as:	The Beer Farm		
ACN:	606 046 306		
Registered address:	177 Gale Road METRICUP WA 6280		
Reporting period:	01/01/2024 **to** 31/12/2024 for DWER licence dated 08 December 2022		

Section B – Statement of Compliance with Licence Conditions
Did you comply with all of your licence conditions during the reporting period? (please tick the appropriate box)
☐Yes – please complete: • section C; • section D if required; and • sign the declaration in Section F.
☒No – please complete: • section C; • section D if required; • section E; and • sign the declaration at Section F.

Section C – Statement of Actual Production	
Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed Premises Category	**Actual Production Quantity**
25: Alcoholic Beverage manufacturing	831.1 kL

Section D – Statement of Actual Part 2 Waste Discharge Quantity	
Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed Premises Category	**Actual Part 2 Waste Discharge Quantity**
N/A	N/A

[redacted]

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Condition 2, row 1 Condition 5, row 2	Date(s) of non-compliance:	01 January 2024 until 31 December 2024.
Details of non-compliance:			
One 500 litre Yeast Propagation Vessel was onsite, but was not installed during the 2024 AER period. The vessel was not installed during the 2024 period because it was not required due to reduced beer production during the 2024 AER period. This is a technical non-compliance.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No actual or suspected environmental harm.			
Cause (or suspected cause) of non-compliance:			
Poorly worded licence conditions. Conditions should be re-worded to make it clear that the condition authorises the installation and use of the propagation vessel, but the vessel does not need to be installed to comply with the conditions.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
The Yeast Fermentation Vessel was installed on 29 January 2025. A licence amendment will be submitted to amend these conditions.			
Was this non-compliance previously reported to DWER? Reported at site audit inspection.			
X Yes, and			
Reported to DWER verbally		Date: 24/10/2023 – during compliance audit inspection	
☐ Reported to DWER in writing		Date: / /	

[redacted]

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Condition 2, rows 2 to 6; row 8; row 10. Condition 5, row 10,	Date(s) of non-compliance:	01 January 2024 until August 2024.
Details of non-compliance:			
Infrastructure required by the referenced conditions was not installed during the 2023 AER period as the required Department of Health (DoH) approval had not been provided by the Department of Health. At the site audit meeting with DWER on 24 October 2023 it was requested that the DWER officers contact the Department of Health (DoH) and request that they expedite the DoH approval to allow the infrastructure to be installed. DWER was able to resolve the DoH approval issues and the Department of Health approval was granted on 16 November 2023. Installation of this equipment commenced as soon as practical after the Department of Health approval was granted. There were challenges finding suitable contractors to undertake these works resulting in a further delay installing the infrastructure until about August 2024. Control of the infrastructure was handed over to the site from the contractor in November 2024. The rain sensor/gauge was not installed at the location specified in the licence due to concerns about the impacts of built infrastructure on the operation of the sensor at the time of construction. The Licence will need to be amended to address this non-compliance. A camlock fitting was not installed on the septic tank because it can be accessed for pump-out by removing the lid cover (i.e. this is the specific design of the tank that was installed). The septic tank has not been emptied because it was determined that it has not operated for sufficient time to justify emptying the tank.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No actual or suspected environmental harm.			
Cause (or suspected cause) of non-compliance:			
Poor co-ordination between regulatory bodies. Delay finding suitable contractors. Issues (i.e. location of the rain gauge and camlock fitting on septic tank) identified by contractors during the construction phase of the project.			

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
At the site audit meeting with DWER on 24 October 2023, it was requested that the DWER officers contact the Department of Health (DoH) and request that they expedite the DoH approval to allow the infrastructure to be installed. DWER was able to resolve the DoH approval issues and DoH approval was granted by on 16 November 2023. The timing of the DoH approval (i.e. the Christmas break period) meant that contractors could not be contracted until the new year (i.e. 2024). There were then issues with the contracting process necessitating that a new contractor needed to be found. The location of the rain gauge and requirement for a cam lock fitting will need to be addressed via a Licence Amendment.	
Was this non-compliance previously reported to DWER? Reported as site audit inspection.	
X Yes, and	
X Reported to DWER verbally	Date: 24/10/2023
☐ Reported to DWER in writing	Date: / /

[redacted]

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Condition 2, row 9 Condition 5, row 11.	Date(s) of non-compliance:	01 January 2024 until August 2024 and December 2024
Details of non-compliance:			
Was not installed on 16 August 2023, however the original contractor incorrectly installed the flow meter on the highest point of a U-shaped pipe. This resulted in air accumulation in the pipe and dubious flow meter readings. The flow meter was repositioned in August 2024 by a second contractor. There has been a data communication error since the end of November 2024. This issue is currently being resolved.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No actual or suspected environmental harm. Wastewater flow was estimated using a record of inputs during the period that the flow meter was not functional.			
Cause (or suspected cause) of non-compliance:			
Difficulty sourcing an appropriate flow meter for wastewater with high solids. Poor positioning of the flow meter by the original contractor. Commissioning issues with the new Wastewater Treatment Plant (i.e. the data communication issue).			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
The flow meter has now been correctly installed. Electrical contractors are currently resolving the data communication issue. The site has implemented a protocol of photographing the face of the flow meter on the last working day of each month as a back-up.			
Was this non-compliance previously reported to DWER?			
No.			
☐ Reported to DWER verbally		Date: / /	
☐ Reported to DWER in writing		Date: / /	

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	2, Row 11.	Date(s) of non-compliance:	01 January 2024 until 31 December 2024
Details of non-compliance:			

A technical non-compliance occurred with Condition 2, Table 1, row 11. Groundwater bores were not constructed in accordance with the requirements of this condition. If the bores were constructed in accordance with this condition, they would not be fit-for-purpose.

Condition 5 requires that the groundwater bores are: "*capable of intercepting surficial groundwater (if present)*"

Prior to the installation of the groundwater monitoring bores, DWER's Groundwater Science Central section was consulted in October 2022 and advised that:

- Western Australian DWER licenced drillers are not trained on the referenced standard: ASTM D5092/D5092M-16 and are unlikely to be familiar with the requirements of this standard;
- If DWER is to reference a design standard it should be the *"Minimum Construction Requirements for Water Bores in Australia*";
- A DWER licenced driller is not required to install a groundwater monitoring bore into the unconfined aquifer, but it is generally recommended; and
- There is no design standard for the construction of a shallow groundwater bore into an unconfined aquifer in Western Australia.

A DWER licenced driller was used to install the groundwater monitoring bores and the driller advised that:

- If the *"Minimum Construction Requirements for Water Bores in Australia*" were applied, a cement grout seal is required to be installed to a depth 5m below the ground surface. Based on the conditions encountered at the time of drilling, this seal would isolate the surficial groundwater from the bore, which would therefore not be capable of meeting the requirements of Condition 5 (i.e. to intercept surficial groundwater). This standard therefore could not be applied;
- the bores installed are designed to meet the requirements of Condition 5; and
- Drilling 2 metres below the water table, as required by Condition 2, will result in the artificial development of a water table where one does not currently exist. Groundwater samples collected from these bores (if installed) will then not be representative of the surficial groundwater because it will have interacted with the deeper strata (clay) that would otherwise not be in contact with the surficial groundwater.

[redacted]

ASTM D5092/D5092M-16 has a similar grout requirement to *"Minimum Construction Requirements for Water Bores in Australia"* and accordingly cannot be applied because it will result in the surficial groundwater being isolated from the groundwater bore. ASTM D5092/D5092M-16 is also not designed to be applied to shallow surficial groundwater. It is designed to be applied to monitoring of deeper groundwater. It was therefore not possible to comply with Condition 5 and Condition 2, row 11. Condition 2, row 11 is not fit-for-purpose, this condition was therefore not complied with.
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.
No actual or suspected environmental harm. Environmental harm may have occurred if the condition was adhered to because the groundwater bores would have been constructed in a manner that would not be capable of intercepting surficial groundwater, as required by Condition 5. If surficial groundwater was not intercepted, the groundwater monitoring system may not detect contaminated groundwater if it develops.
Cause (or suspected cause) of non-compliance:
Poorly worded DWER condition that: a. was not fit-for-purpose; and b. did not consider the site conditions.
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:
A licence amendment will be submitted to remove this condition from the licence.
Was this non-compliance previously reported to DWER? Reported in 2022 AER.
X Yes, and

☐ Reported to DWER verbally	Date: / /
X Reported to DWER in writing	Date: 30/01/2024 with AER

[redacted]

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Condition 5, row 9	Date(s) of non-compliance:	01 January 2024 until 31 December 2024.
Details of non-compliance:			
A technical non-compliance occurred because the following item is recorded incorrectly: "Combined 7kL concrete tank and pump with connecting pipelines and/or fittings" This tank is incorrectly recorded as a concrete tank when the tank is a plastic tank.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No actual or suspected environmental harm. Environmental harm could have developed if a concrete tank was installed. Concrete tanks are less resistant to corrosion from acidic wastewater than plastic tanks.			
Cause (or suspected cause) of non-compliance:			
Historic typographical error in licence.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
A Licence Amendment will be submitted to resolve this technical non-compliance.			
Was this non-compliance previously reported to DWER? Reported as site audit inspection.			
X Yes, and			
X Reported to DWER verbally		Date: 24/10/2023	
X Reported to DWER in writing		Date: 30/01/2024 with AER	

[redacted]

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Conditions: 6, 7(a), 7(c), 7(e), 11, 12	Date(s) of non-compliance:	01 January 2024 until August 2024
Details of non-compliance:			

The following infrastructure was not installed until August 2024:

- Fixed sprinklers;
- Rainfall gauge and related irrigation control systems;
- Sampling port on irrigation supply line;
- Lime dosing station and related control systems;
- Wastewater storage infrastructure;
- Irrigation control system; and
- Flow-meter capable of measuring flow to each LAA.

Because the above infrastructure was not installed until August 2024, Conditions 6, 7(a), 7(c), 7(e), 11 and 12 were not fully complied with.

Infrastructure required by the referenced conditions was not installed during the 2023 AER period as the required Department of Health approval for installation had not been approved by the Department of Health.

At the site audit meeting with DWER on 24 October 2023 it was requested that the DWER officers contact the Department of Health (DoH) and request that they expedite the DoH approval to allow the infrastructure to be installed.

DWER resolved the Department of Health approval issue and a DoH approval was granted on 16 November 2023.

Installation of this equipment commenced as soon as practical after the Department of Health approval was granted.

There were challenges finding suitable contractors to undertake these works resulting in a delay installing the infrastructure until August 2024.

It is noted that the rain sensor/gauge was not installed at the location specified in the licence due to concerns about the impacts of built infrastructure on the operation of the sensor at the time of construction. The Licence will need to be amended to address this non-compliance.

A camlock fitting was not installed on the septic tank because it can be accessed for pump-out by removing the lid cover.

The sprinklers were installed in the full extent of LAA 1 and LAA 2, but only LAA1a and LAA 2a have been approved under the current licence. The reason for the sprinklers being located in the full extent of LAA 1 and LAA 2 is that the second contractor needed to match the number of sprinklers to the volume supplied by the proposed pump. Approval has been provided by the City of Busselton to irrigate the full extent of LAA 1 and LAA 2. A Licence Amendment from DWER will be required to address this item.

What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.
No actual or suspected environmental harm. Routine soil monitoring detected an increase in the exchangeable sodium percentage of soils within the irrigation areas. This will be managed by the application of gypsum and/or by changing the processes in the brewery to minimize sodium use. If routine soil monitoring is not undertaken, impacts to the soils of the irrigation areas may develop over time. Irrigating the full extent of LAA 1 and LAA 2 represents a lower environmental risk compared to limiting irrigation to the extent approved by DWER. This is because phosphorus contained in wastewater was able to be spread over a larger area.
Cause (or suspected cause) of non-compliance:
Poor coordination between regulatory bodies. A contractor change between seeking approval from DWER/DoH and constructing the required infrastructure. The contractor identified that wastewater needed to be irrigated to a larger area to match the size of the irrigation pump.
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:
At the site audit meeting with DWER on 24 October 2023 it was requested that the DWER officers contact the Department of Health (DoH) and request that they expedite the DoH approval to allow the infrastructure to be installed. DoH approval was granted by on 16 November 2023. DWER resolved the DoH approval issue. Processes to facilitate the installation of infrastructure commenced immediately upon granting of DoH approval, this included seeking a second contractor when the first contractor was not able to install the required infrastructure. A licence amendment will be submitted to DWER to seek approval to irrigate the full extent of Land Application Areas 1 and 2. Approval for this activity has already been granted by the City of Busselton.
Was this non-compliance previously reported to DWER? Reported at DWER site audit.
X Yes, and

X Reported to DWER verbally	Date: 24/10/2024
X Reported to DWER in writing	Date: 30/01/2024 with AER

[redacted]

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Condition 24 – row relating to condition 8.	Date(s) of non-compliance:	01 January 2024 until 31 December 2024

Details of non-compliance:

Condition 24 requires that *"Tabulated monthly volumes in kg of harvested dry mass for each LAA"* are reported as part of the Annual Environmental Report (AER). This information was not collected and therefore cannot be reported.

Pasture is harvested as wet mass, not dry mass. To measure the dry mass of pasture harvested the Beerfarm will need to:

a. Collect the harvested grass (i.e. wet mass) and dry it out using a commercial oven or similar to permit the measurement of dry mass; and
b. Weigh the total mass (i.e. tonnes per each harvest) in a dedicated weighbridge.

The Beerfarm does not have access to:

a. A commercial oven of the size required to dry out the harvested material; or
b. A weighbridge.

Furthermore, once the wet-mass has been converted to dry-mass by drying it out, it will no longer have the same nutritional value for use as cattle feed.

There will also be an excessive carbon footprint associated with the process as substantial amounts of heat will be required to run the oven.

Accordingly, it is not reasonable or practical to report the harvested pasture dry mass, as required by Condition 24.

It is also not clear what environmental risk is being managed by requiring the mass of pasture harvested to be measured, noting that:

a. The yield potential of the area has already been determined by research by DPIRD (1978), additional research to determine the yield potential at the Beerfarm site is not warranted;
b. There are adequate soil and wastewater monitoring requirements in place to determine the agronomic constraints to pasture production; and
c. There are adequate soil, groundwater and surface water monitoring conditions in place to detect impacts if pasture growth is not sufficiently adequate to remove nutrients.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No actual or suspected environmental harm.

[redacted]

Cause (or suspected cause) of non-compliance:	
A licence condition that is not reasonable and practical.	
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
A Licence Amendment application will be submitted to DWER seeking removal of the condition.	
Was this non-compliance previously reported to DWER? Reported at site DWER audit	
X Yes, and	
X Reported to DWER verbally	Date:24/10/2023
X Reported to DWER in writing	Date: 30/01/2024 with AER

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Condition 9, Table 4	Date(s) of non-compliance:	01 January 2024 until 31 December 2024.
Details of non-compliance:			
The were operational challenges loading tractors with grain after it had cooled in the brewery hardstand area. To address these challenges, spent grain has been temporarily stored in a bunded tray outside of the approved containment infrastructure. Drainage from the tray is directed to the wastewater collection infrastructure.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No actual or suspected environmental harm.			
Cause (or suspected cause) of non-compliance:			
Operational challenges.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
A Licence Amendment will be submitted to seek approval for additional spent grain storage.			
Was this non-compliance previously reported to DWER? Reported as site audit inspection.			
X Yes, and			
X Reported to DWER verbally		Date: 24/10/2023	
X Reported to DWER in writing		Date: 30/01/2024 with AER	

[redacted]

Section E – Details of Non-Compliance with Licence Condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	Condition 19, Table 9	Date(s) of non-compliance:	01 January 2024 until 31 December 2024.
Details of non-compliance:			
Loading limit for phosphorus was marginally exceeded as reported in 2024 AER. Sodium Adsorption Ratio (SAR) was greater than the line depicted in Schedule 1, Figure 4, as reported in the 2024 AER. pH was less than 6 as reported in the 2024 AER. Wastewater irrigation volumes in the months of June and July could not be determined because the wastewater flow meter was not functional at this time.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No actual or suspected environmental harm. Routine soil monitoring detected an increase in the exchangeable sodium percentage of soils within the irrigation areas. This will be managed by the application of gypsum. If routine soil monitoring is not undertaken, environmental impacts may develop over time. Routine soil monitoring detected a low pH of soils within the irrigation areas, this is typical of the natural soils of the region. To optimise plant growth, this will be managed by increasing the pH of wastewater. If routine soil monitoring is not undertaken, environmental impacts may develop over time.			
Cause (or suspected cause) of non-compliance:			
Liquid lime is required to adjust the pH of wastewater, to reduce the SAR level of wastewater and to reduce the phosphorus concentration of wastewater. The site has been using solid lime (as calcium hydroxide) but has struggled to get enough lime into suspension to adequately adjust the pH of wastewater. Liquid lime is not currently available. Lhoist (i.e. a supplier for liquid lime) has advised that liquid lime should be available via a pilot plant that they are constructing in Malaysia from March 2025. As outlined in the AER, the phosphorus loading limit is also potentially inappropriate once liming of wastewater commences. This is due to the low phosphorus solubility (i.e. bioavailability) of limed wastewater and the capacity of the sites soils to adsorb phosphorus.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Lhoist has been contacted and a request lodged for an IBC to be delivered to the site from the first batch of liquid lime produced in Malaysia. The use of liquid lime will resolve the pH adjustment issues and should help facilitate the management of wastewater SAR.			

The site will investigate practical options to further reduce the SAR of wastewater. A Licence Amendment will be submitted to: • increase irrigation to the full extent of LAAs 1 and 2; • revise phosphorus loading limits based on the methodology recommended in the ANZECC (2000) guidelines for phosphorus management in wastewater irrigation areas; and • provide a linkage between SAR values and management actions to reduce the SAR of irrigated wastewater, as recommended in the 2024 AER.	
Was this non-compliance previously reported to DWER? No	
☐ Yes, and	
☐ Reported to DWER verbally	Date:
☐ Reported to DWER in writing	Date: / /

[redacted]

Section F – Declaration

I/We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular[1]. I/We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation's (DWER) website.			
Signature[2]:	[redacted]	Signature:	
Name: (printed)		Name: (printed)	
Position:		Position:	
Date:	30-1-25	Date:	
Seal (if signing under seal):			

[1] It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

[2] AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.

[redacted]