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	The Beer Farm Pty Ltd		
Trading as:	The Beer Farm			
ACN:	606 046 306			
Registered address:	177 Gale Road METRICUP WA 6280			
Reporting period:	01/01/2023 to 31/12/ 2022	2023 for DWER liceno	ce dated 08 December	

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	954.6 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	

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:	02 January 2023 until 31 December 2023.	
Details of non-comp	oliance:			
One 500 litre propa This is a technical r	gation vessel was onsite, but non-compliance.	t was not installed duri	ng the 2023 AER period.	
What was the actua	al (or suspected) environmen	tal impact of the non-c	ompliance?	
NOTE – please attac	h maps or diagrams to provide i e.	nsight into the precise lo	cation of where the non-	
No actual or suspec	cted environmental harm.			
Cause (or suspecte	ed cause) of non-compliance:			
Poorly worded licer	nce 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:				
A licence amendment will be submitted to amend these conditions.				
Was this non-comp	liance previously reported to	DWER? Reported as	site audit inspection.	
X Yes, and				
X Reported to D	WER verbally	Date: 24/10/2023		
☐ 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:	Condition 2, rows 2 to 6; row 8; row 10.	Date(s) of non- compliance:	02 January 2023 until 31 December 2023.	
	Condition 5, row 10,			
Details of non-comp	oliance:			
	red by the referenced condition red Department of Health (Do Ith.			
officers contact the	eting with DWER on 24 Octo Department of Health (DoH) e infrastructure to be installe	and request that they		
Department of Heal	lth approval was granted on	16 November 2023.		
Installation of this e approval was grant	quipment commenced as soc ed.	on as practical after the	e Department of Health	
What was the actua	al (or suspected) environmen	tal impact of the non-c	ompliance?	
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 suspecte	ed cause) of non-compliance:			
Poor co-ordination	between regulatory bodies.			
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.				
Was this non-compliance previously reported to DWER? Reported as site audit inspection.				
X Yes, and				
X Reported to D	WER verbally	Date: 24/10/2023		
Reported to I	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:	Condition 2, row 9	Date(s) of non- compliance:	02 January 2023 until 16 August 2023.
	Condition 5, row 11.		
Details of non-comp	oliance:		
Wastewater flow m	eter was not installed until 16	August 2023.	
What was the actua	al (or suspected) environment	tal impact of the non-c	ompliance?
NOTE – please attac compliance took plac	n maps or diagrams to provide in e.	nsight into the precise lo	cation of where the non-
No actual or suspec	cted environmental harm.		
Cause (or suspected	ed cause) of non-compliance:		
Difficulty sourcing an appropriate flow meter for wastewater with high solids.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Flow meter has bee	en installed.		
Was this non-compliance previously reported to DWER? Reported as site audit inspection.			
X Yes, and			
X Reported to D	WER verbally	Date: 24/10/2023	
☐ 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:	October 2022
		Compilation.	

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.

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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: 30/01/2023

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:	02 January 2023 until 31 December 2023.		
Details of non-com	pliance:				
A technical non-cor	npliance occurred because t	he following item is red	corded incorrectly:		
"Combined 7kL cor	ncrete tank and pump with co	nnecting pipelines and	l/or fittings"		
This tank is incorre	ctly recorded as a concrete t	ank when the tank is a	plastic tank.		
What was the actua	al (or suspected) environmen	tal impact of the non-c	ompliance?		
NOTE – please attac compliance took place	h maps or diagrams to provide i e.	nsight into the precise lo	cation of where the non-		
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 suspecte	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 D	WER verbally	Date: 24/10/2023			
Reported to	DWFR 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:	Conditions: 6, 7(a), 7(c),	Date(s) of non-	01 January 2023 until 31
Condition no.	7(e), 11, 12	compliance:	December 2023

Details of non-compliance:

The following infrastructure was not installed and was not required to be installed during the AER period:

- · 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 and
- Flow-meter capable of measuring flow to each LAA.

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

The irrigation control system required by Condition 7(c) to prevent irrigation after a storm event was not installed.

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.

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.

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.

Cause (or suspected cause) of non-compliance:

Poor coordination between regulatory bodies.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

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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 2	2023.		
Processes to facilitate the installation of infrastru DoH approval.	cture commenced immediately upon granting of		
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			
Reported to DWER in writing			

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	Date(s) of non-	01 January 2023 until 31
Condition no.	relating to condition 8.	compliance:	December 2023

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.

Cause (or suspected cause) of non-compliance:

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A licence condition that is not reasonable and pr	actical.			
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			
☐ 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:	Condition 9, Table 4	Date(s) of non-compliance:	01 January 2023 until 31 December 2023.		
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 actua	al (or suspected) environmen	tal impact of the non-c	ompliance?		
NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.					
Cause (or suspecte	ed cause) of non-compliance:				
Operational challen					
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 D	WER verbally	Date: 24/10/2023			
Reported to I	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:	Condition 19, Table 9	Date(s) of non-compliance:	01 January 2023 until 31 December 2023.		
Details of non-compliance:					
Loading limit for ph	osphorus was exceeded as r	eported in 2023 AER.			
Sodium Adsorption Ratio (SAR) was greater than the line depicted in Schedule 1, Figure 4, as reported in the 2023 AER.					
What was the actua	al (or suspected) environment	tal impact of the non-c	ompliance?		
NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.					
No actual or suspe	cted 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.					
Cause (or suspecte	ed cause) of non-compliance:				
Inadequate land are	ea irrigated to achieve phosp	norus loading limits.			
As outlined in the AER, the phosphorus loading limit is 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.					
The limit for SAR may need to be revised once the liming infrastructure is installed. This limit is potentially impractical. For further details refer to the 2023 AER.					
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the					
non-compliance: 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 2023 AER. 					
Was this non-compliance previously reported to DWER? No					
☐ Yes, and					
☐ Reported to	DWER verbally	Date:			
☐ Reported to	DWER in writing	Date: / /			

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 particular¹. I/We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation's (DWER) website. Signature²: Signature: Name: (printed) Name: (printed) Position: Position: Director Date: Date: 30/1/2024 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.