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:	L8669/2012/1 & L8669/2012/2	Licence file number:	DER 2014/000904
Licence holder:	CSBP Limited		
Trading as:	CSBP Limited (Premises: Albany Fertiliser Distribution Facility)		
ACN:	008 668 371		
Registered address:	Level 14, Tower 2 Brookfield Place 123 St Georges Tce PERTH WA 6000		
Reporting period:	01/07/2021 **to** 30/06/2022		

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**
33	*[redacted] (premises capacity is 416,000 tonnes) ***Please see note under declaration**

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**

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:	L8669/2012/1 Condition 5(i) & L8669/2012/2 Condition 7	Date(s) of non-compliance:	11/08/21, 18/08/21, 01/09/21, 08/09/21, 15/09/21, 22/09/21, 06/10/21, 13/10/21, 20/10/21, 27/10/21, 03/11/21, 10/11/21 & 24/11/21

Details of non-compliance:

L8669/2012/1 Condition 5(i) states: The licensee shall not cause or allow point source emissions to the Munster Hill Drain that do not meet the licence limits listed in Table 1.

L8669/2012/2 Condition 7 states: The licence holder must not cause or allow point source emissions to the Munster Hill Drain that exceed the limits listed in Table 1, except where the limit listed in Table 1 is exceeded during an overflow event caused by rainfall.
The discharge point (SW4) is depicted in the environmental licence L8669/2012/1 attachments 1 and 2 and L8669/2012/2 in figure 2.

The licence limit for total phosphorus is 3.0mg/L.
The licence limit for zinc is 0.025mg/L. The form (dissolved or total) is not specified in the licence. CSBP reports both total and dissolved forms but considers the licence limit applies to dissolved (more bio-available) zinc based on ecological protection guidelines for the Princess Royal Harbour developed by BMT Oceanica for SW4 discharge.

11/08/21 – SW4 Total phosphorus concentration was 3.2mg/L, total zinc was 0.026mg/L, dissolved zinc was 0.005mg/L.
18/08/21 – SW4 Total phosphorus concentration was 4.1mg/L, total zinc was 0.038mg/L, dissolved zinc was 0.005mg/L
01/09/21 – SW4 Total phosphorus concentration was 5.4mg/L, total zinc was 0.49mg/L, dissolved zinc was 0.006mg/L
08/09/21 – SW4 Total phosphorus concentration was 70mg/L
15/09/21 – SW4 Total phosphorus concentration was 3.5mg/L, total zinc was 0.027mg/L, dissolved zinc was 0.005mg/L
22/09/21 – SW4 Total phosphorus concentration was 4.7mg/L, total zinc was 0.030mg/L, dissolved zinc was 0.005mg/L
06/10/21 – SW4 Total phosphorus concentration was 4.1mg/L
13/10/21 – SW4 Total phosphorus concentration was 4.8mg/L, total zinc was 0.028mg/L, dissolved zinc was 0.005mg/L
20/10/21 – SW4 Total phosphorus concentration was 4.3mg/L, total zinc was 0.027mg/L, dissolved zinc was 0.005mg/L
27/10/21 – SW4 Total phosphorus concentration was 4.2mg/L

03/11/21 – SW4 Total phosphorus concentration was 3.6mg/L **10/11/21** – SW4 Total phosphorus concentration was 3.6mg/L **24/11/21** – SW4 Total phosphorus concentration was 3.2mg/L
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.
In 2013 CSBP commissioned BMT Oceanica to determine appropriate water quality limits and targets based on ecological protection guidelines for the Princess Royal Harbour. The study stated a load limit was more appropriate for phosphorous than a concentration limit as it is the total load of the key nutrients in the ecosystem that controls biomass of aquatic plants and associated impacts. A total phosphorous load limit of 250kg/year was proposed, no total phosphorus concentration limit was proposed. There were thirteen occasions when the total phosphorus licence concentration limit was exceeded. There were two instances (5.4mg/L on 1 September 2021 & 70mg/L on 8 September 2021) where the phosphorus concentration was impacted by solids carried over from a coagulant trial. These solids were collected in the licence composite sampler but are not believed to have carried over the discharge weir. The concentration of the composite supernatant (excluding solids) was 1.18mg/L, and is thought to be more representative of actual discharge. The total phosphorous load for the 2021/22 reporting period ending 30 June 2022 was 410kg, or 233kg when calculated using the supernatant result. The supernatant result is representative of waste water entering Munster Hill Drain. Given the supernatant annual load is lower than the proposed limit of 250kg/year to protect Princess Royal Harbour, CSBP considers there to be negligible risk of environmental impact. The zinc licence limit is 0.025mg/L but the form (dissolved or total) is not specified. CSBP considers it logical that the licence limit applies to dissolved zinc for reasons stated above. Based on ecological protection guidelines for the Princess Royal Harbour developed by BMT, the dissolved zinc for all discharges during the reporting period were below the 0.025mg/L licence limit and therefore there is negligible risk of environmental impact.
Cause (or suspected cause) of non-compliance:
Rainfall for 2022 was historically very high (10th decile), leading to high groundwater levels and large volumes of stormwater requiring treatment. When groundwater levels are high, groundwater in the unlined pond is pumped across to the lined pond for treatment. An investigation found natural organic matter (NOM) in groundwater interferes with the coagulation/flocculation process in the water treatment. Hydrophobic organic compounds of NOM interact strongly with suspended solids (due to their high polarity) and, as a result, inhibit the ability of the flocculant to settle the suspended particulate phosphorus within the water treatment plant. During the reporting period, groundwater from the unlined pond contributed approximately 25% of the total treated discharge, compared to 13% during the previous reporting period. The higher proportions of groundwater reduced the effectiveness of the water treatment plant and resulted in carry over of phosphorus particulate.
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

An alternative coagulant was trailed in 2021 as a solution to prevent the interference of organic matter. Despite successful laboratory tests, the performance of the new coagulant did not translate when trailed at a large scale. Construction to install an activated carbon filter to remove the NOM from the groundwater prior to the water treatment plant has been advanced, with commissioning commenced. More specifically, this installation represents an advanced trial which deploys granulated active carbon (GAC) filtration. GAC reflects a proven technology for removing dissolved organic carbon (DOC) content of NOM, with laboratory scale trials confirming significant removal of DOC using GAC. The trial configuration comprises pumping and polyethylene (HDPE) piping installed to transfer water from the unlined pond to the eastern sludge bed, with the sludge bed sized for vertical flow and residence time to maximise adsorption of DOC. The discharge water from the sludge bed GAC filter is then forwarded to the lined drain and subsequently to the lined pond.

Was this non-compliance previously reported to DWER?	
☒ Yes, and	
☐ Reported to DWER verbally	Date: / /
☒ Reported to DWER in writing	Date: 02/09/21, 24/09/21, 08/10/21, 29/10/21, 12/11/21, 25/11/21 and 16/12/21

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 ***with the exception of the production quantity. CSBP does not consent to production (despatch) tonnes being published as this information may be used by our competitors to assess markets in the region.**

Signature[2]:	[redacted]	Signature:	[redacted]
Name: (printed)		Name: (printed)	
Position:		Position:	
Date:	29/8/22	Date:	24/08/2022
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.