



Application for works approval

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

Works approval number	W6654/2022/1
Applicant	CSBP Limited
ACN	008 668 371
DWER file number	DER2021/000729
Premises	CSBP Geraldton Depot 280 North West Coastal Highway WEBBERTON WA 6530
Date of report	8 June 2022
Status of report	Final

1. Decision summary

This report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the new infrastructure. As a result of this assessment, works approval W6654/2022/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this report, the department has considered and given due regard to its regulatory framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary and overview of premises

Background

The premises relates to the category 33: chemical blending or mixing, and assessed production capacity of 507,000 tonnes under Schedule 1 of the Environmental Protection Regulations 1987 which are defined in works approval W6654.

CSPB Limited (the applicant) currently hold a licence to operate the premises (L8841/2014/1). Current on-site activities include the receipt, storage and dispatch of granular fertilisers, the manufacture and dispatch of liquid fertiliser and the receipt of industrial wash down water (a controlled waste) from fertiliser import activities at the Port of Geraldton. The industrial wash down water, which contains chromium, is reused or disposed of in a licensed offsite facility. The premises receives granular fertiliser and liquid products for the purpose of blending and/or mixing.

The premises has two lined sumps to contain potentially contaminated stormwater; Pond 1 is currently concrete-lined and has capacity to store up to 1,400 kilolitres (kL) and Pond 2 is lined with a high-density polyethylene (HDPE) geomembrane and has capacity to store up to 10,400 kL. Potentially contaminated stormwater collected in Pond 1 is pumped to Pond 2 to prevent Pond 1 from overtopping. In periods of intense rainfall when both ponds are at capacity, stormwater discharges to the existing infiltration area (L1) from Pond 1.

Proposed works

On 17 December 2021, the applicant submitted an application for a works approval under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application seeks to undertake construction works relating to the re-lining of Pond 1 with a HDPE geomembrane. The works are to include:

- excavating an anchor trench for the liner;
- securing the liner sleeves to the inlet and outlet pipes;
- preparing the concrete surface of the pond to ensure it is suitable to cover with a HDPE geomembrane;
- installing a geotextile liner underlay;
- installing the HDPE geomembrane; and
- installing two new concrete spillways.

The existing concrete lining to Pond 1 is at the end of its useful life and the applicant proposes to install the HDPE geomembrane as the primary containment barrier for stormwater entering the pond. This will extend the life of the infrastructure and enable its continued use as a containment pond for potentially contaminated stormwater.

The works will not change activities on the site or cause a change in the current emissions profile of the premises.

3. 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 which 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.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Excavation of trench. Installation of HDPE liner	Air / windborne pathway	Short construction timeframe of about 3 months. Separation distance to sensitive receptors sufficient to prevent adverse impact. Dust suppression used if required. No night works proposed.
Noise			
Potentially contaminated stormwater discharged to infiltration area	Rainfall during construction	Direct discharge	Works will be conducted when no rain is forecast. If required, works may be deferred to the following year if they cannot be completed prior to winter when there is a higher risk of rainfall. If rain occurs during construction, water will be retained in drains and/or collected in Pond 1. If required, stormwater will be transferred to Pond 2. Discharge to the infiltration area will only occur if Pond 2 capacity has been reached. In the event of a discharge to the infiltration area, monitoring of wastewater quality is carried out in accordance with conditions of the existing licence.
Operation			
Storage of potentially contaminated stormwater	Leaking and seepage of potentially contaminated water	Direct discharge and infiltration	1.5mm thick HDPE lined concrete pond. HDPE liner will have geotextile underlay.

3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the delegated officer has excluded the applicant's employees, visitors, and contractors from its assessment. Protection

of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

Table 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Residential premises	350 metres from Pond 1 works (30 metres from boundary of the premises)
Environmental receptors	Distance from prescribed activity
Underlying groundwater (non-potable purposes)	3.5 metres below bottom of pond
Marine ecosystems	Indian Ocean 900m west of the infiltration area

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant'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 applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Works approval W6654 that accompanies this decision report authorises construction. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

At the completion of the works the works approval holder will operate the infrastructure under is licence L8841/2014/1.

Table 3: Risk assessment of potential emissions and discharges from the premises during construction, and operation.

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Construction								
Digging of trench and installing liner on existing concrete pond	Dust	Air/windborne pathway causing impacts to health and amenity	Residences 350 metres west	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1	N/A
	Noise			Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Condition 1	N/A
	Contaminated Stormwater discharging to infiltration area	Contamination of soil, groundwater and marine ecosystems (via overland flow or infiltration)	Groundwater 3.5m below bottom of pond Indian Ocean 900m west of infiltration area	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 1 Existing Licence conditions	Condition 2.1.1 of the existing Licence (L8841/2014/1) only allows discharge to the infiltration area in emergency situations (i.e. when storage capacity is exhausted). Monitoring of wastewater quality will be carried out in accordance with condition 3.2.1 of the Licence and reported in the Annual Environmental Report.
Operation								
Use of sump for potentially contaminated stormwater	Seepage of potentially contaminated stormwater	Contamination of soil, groundwater and marine ecosystems (via overland flow or infiltration)	Groundwater 3.5m below bottom of pond Indian Ocean 900m west of infiltration area	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 1, ²	Infrastructure requirements conditioned in the works approval to ensure that the HDPE liner specifications comply the requirements outlined in <i>Water Quality Protection Note 26: Liner for containing pollutant, using synthetic membranes</i> (DoW 2013)

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Decision

The delegated officer has determined the proposal to replace the existing Pond 1 liner with a 1.5 mm thick HDPE geomembrane does not pose an unacceptable risk of impacts to public health or the environment. This determination is based on the following:

- the existing pond lining system has come to the end of its useful life and needs to be replaced to ensure continued use;
- a HDPE geomembrane is an acceptable lining system for a stormwater containment sump, providing installation is conducted with appropriate quality assurance/quality control, as specified by the manufacturer; and
- stormwater falling within the premises during construction works will be managed in accordance with existing licence requirements.

As the above controls proposed by the applicant are considered critical for maintaining an acceptable level of risk of environmental impacts, they will be imposed on the works approval as infrastructure controls.

4.1.1 Applicant comments on draft decision

The applicant was provided with drafts of the works approval and this report on 4 May 2022 and responded with comments that clarified the proposed schedule of works, management of stormwater in Pond 1 during construction, and liner thickness and tensile strength specifications of the proposed HDPE geomembrane to be installed. The delegated officer accepted all comments and made updates to conditions where necessary.

5. Conclusion

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

Daniel Hartnup
A/MANAGER, PROCESS INDUSTRIES
REGULATORY SERVICES

Delegated officer
under section 20 of the Environmental Protection Act 1986