



## Application for Works Approval

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

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<b>Works Approval Number</b>	W2899/2025/1
<b>Applicant</b>	Shire of Leonora
<b>File number</b>	INS-0002899
<b>Premises</b>	Shire of Leonora Refuse Site Lot 528 Laverton – Leonora Road Leonora WA  Legal description Reserve 31924 Lot 528 on Deposited Plan 417101 Certificate of Title Volume LR3175 Folio 319  As defined by the premises maps attached to the issued works approval
<b>Date of report</b>	2 April 2025
<b>Decision</b>	Works approval granted

Abbie Crawford  
MANAGER, WASTE INDUSTRIES  
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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## 1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W2899/2025/1 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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

On 15 November 2024, the applicant (Shire of Leonora) submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The applicant (Shire of Leonora) operates the Leonora Refuse Site (the premises) with a liquid waste facility under Licence L8815/2014/1 at Lot 528 on Deposited Plan 417101. The premises has been registered with the department as a Putrescible landfill site under Category 89, under Registration number R1724/2005/1. The premises is approximately 2 km south-east of the town of Leonora.

The works approval application is to undertake construction works associated with a new lined evaporation pond.

The current liquid waste facility consists of two concrete primary ponds for acceptance of liquid waste from tankers and one evaporation pond. The source of the waste received includes waste from town septic tanks, mine camps, and from the Water Corporation tanker trucks. The liquid waste is treated through a process of separation of solids in primary ponds, overflowing into an evaporation pond. The facility has a capacity to treat 4,643 tonnes of liquid waste per annual period. This application is not proposing to increase the annual throughput of liquid waste.

The premises relates to the category and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W2899/2025/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W2899/2025/1.

## 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 time limited 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
<b>Construction</b>			
Dust	Construction of new effluent pond (including excavation, vehicle movements, liner installation, monitoring well)	Air / windborne pathway	A water supply dam is available on site for the supply of the required quantities of suitable water for the proposed earthworks and for dust suppression during construction.  The contractor will be required to keep all operations under review in order to minimize the impact of vibrations and dust.
Noise		Air / windborne pathway	The contractor will be required to keep all operations under review in order to minimize the impact of noise.
<b>Operation</b>			
Odour	Operations of liquid waste facility (including vehicle movements, liquid waste transfer)	Air / windborne pathway	None proposed
Spills of untreated wastewater		Overland runoff Seepage to groundwater	The existing Licence L8815/2014/1 includes various controls for spills management
Seepage of liquid waste		Seepage to groundwater	Pond will be lined with a layer of geotextile, geosynthetic clay liner and overlaid by a 1.5 mm HDPE liner.

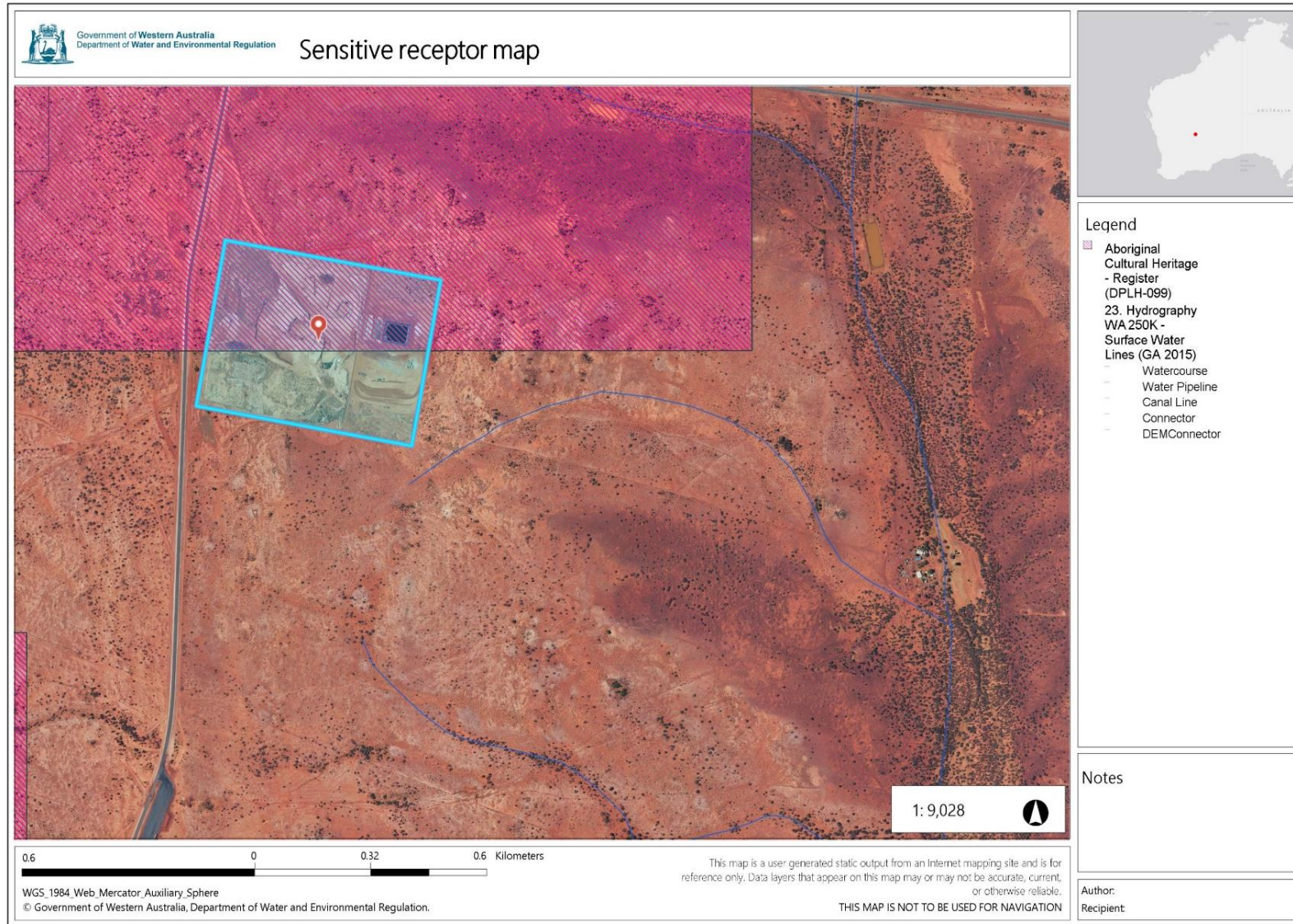
### 3.1.2 Receptors

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 and Figure 1 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**

<b>Human receptors</b>	<b>Distance from activity / prescribed premises</b>
Residential Premises	1.2 km east of the premises boundary 1.5 km west of the premises boundary
<b>Environmental receptors</b>	<b>Distance from activity / prescribed premises</b>
<i>Rights in Water and Irrigation Act 1914 – Goldfields Groundwater Area</i>	Premises located within Goldfield's groundwater area
Minor watercourse	Approximately 70 m south-east of the premises boundary
Aboriginal heritage site	WLN01 Creek – registered place- located within the north portion of the premises area
Groundwater	The depth to groundwater is anticipated to be 6–11 m below ground surface and moving Southwest



**Figure 1: Distance to sensitive receptors**

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IR-T13 Decision report template (short) v3.0 (May 2021)

## 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 licence 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 W2899/2025/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 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 has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

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

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Construction</b>								
Excavation for construction and installation of new pond Vehicle movements Liner installation	Dust	Air / windborne pathway causing impacts to health and amenity	Residences 1.2 km east and 1.5 km west	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	N/A	The Delegated Officer considers that the Applicant's proposed controls are likely to be sufficient at mitigating dust emissions.
	Noise			Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	N/A	The delegated officer considers noise emissions associated with the construction can be sufficiently managed through the <i>Environmental Protection (Noise) Regulations 1997</i>
<b>Operation (including time-limited-operations operations)</b>								
Operation of liquid waste facility (including vehicle movements, liquid waste transfer)	Odour	Air / windborne pathway causing impacts to health and amenity	Residences 1.2 km east and 1.5 km west	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	N/A	The environmental siting of the premises is considered to be effective in mitigating the impact of odour emissions from the premises during time limited operations.  Odour can be adequately regulated by section 49 of the EP Act.



Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	Spills of untreated wastewater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality  Subsurface seepage	Premises within RIWI – Goldfields Groundwater Area	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1, 2, 3, 4, 5, 8, 10 and 13	In order to prevent stormwater runoff from entering the waste storage infrastructure causing an overflow, the proposed pond crest height is greater than ground level.  The Delegated Officer added a minimum top of embankment freeboard of 500 mm during time-limited operations to reduce the risk of overtopping.
	Seepage of liquid waste	Subsurface seepage	Minor surface water line~ 70 m south-east of the premises boundary  Aboriginal heritage site	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1, 2, 3, 4, 5, 8, 10 and 13	The Delegated Officer considers that the Applicant's proposed controls are likely to be sufficient at mitigating emissions from seepage of liquid waste.  After considering the design of the pond, the depth of groundwater and the distance to receptors, the Delegated Officer concluded not to include the requirement to install one groundwater monitoring bore. Also, the addition of this liquid waste pond does not increase

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Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
								the risk at the premises as waste capacity has not increase and no new liquid waste types have been added.

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. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation**

Consultation method	Comments received	Department response
Application advertised on the department's website on 23 December 2024	None received	N/A
Applicant was provided with draft documents on 20 March 2025	On 31 March 2025, the applicant waived the comment period.	N/A

## 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.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.