



Application for Licence

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

Licence Number	L9419/2023/1
Applicant	Robe River Mining Co Pty Ltd
ACN	008 694 246
File number	DER2023/000731
Premises	Pannawonica Deepdale Landfill Legal description - Part of Mining Tenement AML70/248 As defined by the coordinates in Schedule 2 of the licence As defined by the premises maps attached to the issued licence
Date of report	1 May 2024
Decision	Licence granted

A/MANAGER WASTE INDUSTRIES REGULATORY SERVICES

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 operation of the premises. As a result of this assessment, licence L9419/2023/1 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 13 November 2023, the applicant submitted an application for a licence to the department under section 57 of the *Environmental Protection Act 1986* (EP Act). 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 Licence L9419/2023/1 and Table 1.

Table 1: Prescribed premises category and capacity

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed design capacity
Category 64 Class II or III putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the Landfill Waste Classification and Waste Definitions 1996, is accepted for burial.	15 000 tonnes per annum
Category 62 Solid waste depot: premises on which waste is stored or sorted, pending final disposal or re-use, other than in the course of operating – a refund point (as defined in the Waste Avoidance and Resource Recovery Act 2007 section 47C(1)) (a refund point); or a facility or other place (an aggregation point) for the aggregation of containers that have been returned to refund points until those containers are accepted for processing or disposal.	800 tonnes per annum

The Premises was constructed under works approval W6484/2020/1, and compliance with construction requirements of the works approval was confirmed by the department on 12 September 2023. A time limited operations report was submitted on the 17 April 2024 and compliance was confirmed by the department on 23 April 2024.

The premises has been operating under the works approval's time limited operations provisions since 20 September 2023. This application is for the ongoing operation of the Pannawonica Landfill, as required under Part V, Division 3 of the *Environmental Protection Act 1986* (WA).

The premises will support mining activities occurring at the Mesa A Iron Ore Operations, Mesa J and K Iron Ore Operations and the town of Pannawonica. Putrescible wastes will be buried and green waste will be burnt at the premises. Special Waste Type 1 (Asbestos) will be disposed of into a designated asbestos disposal cell. Inert Waste Type 2 (Used Tyres) will be disposed of at the premises by burial, however in a manner that will facilitate recovery should recycling become viable in the future. Inert Waste Type 1 will be disposed of at the premises, above ground and uncovered, in perpetuity. Clean fill will be accepted for waste coverage.

Scrap metals will be stored at the premises in accordance with Category 62 solid waste depot, until they can be transported to a recycling facility. Storage will be above ground on cleared earthen areas, no infrastructure is necessary for these activities. Up to 800 tonnes per year will be recycled. Some scrap metals unable to be recycled will be disposed of with other Inert Waste Type 1 and included in Category 64 recorded tonnages.

Construction authorised under the works approval included all general infrastructure associated with the premises including fencing, firebreaks, signage, waste storage areas, designated burning areas for greenwaste and the initial construction of designated cells for putrescible wastes, used tyres and asbestos as required for immediate waste disposal. Subsequent future cell construction will be authorised via licence conditions (an amendment application will be required), enabling construction on an as-needs basis and reporting this construction to DWER in the annual environmental report.

Daily cover requirements of putrescible waste during time limited operations under works approval W648/2020/1 required the applicant to cover the waste daily with 150 mm of Inert type 1 waste or soil. The applicant has requested that this be reduced to weekly as it is an operational challenge at daily frequency.

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 operation which have been considered in this decision report are detailed in Table 2. Table 2 below also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 2: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Operation			
Operation of landfill	Dust	Air/windborne pathway	Dust suppression including water trucks, restricted vehicle speeds.

Emission	Sources	Potential pathways	Proposed controls
Operation of waste storage areas	Odour		Wastes covered with 150 mm of soil weekly and 300 mm of soil monthly, plus final capping of 1 m soil upon closure.
	Windblown rubbish	Wind dispersion	Cells located according to prevailing winds to minimise windblown rubbish. Wastes covered with 150 mm of soil weekly and 300 mm of soil monthly, plus final capping of 1 m soil upon closure. Boundary fencing to 1.8 m height with lockable gates. Separate landfill cell for Special Waste Type 1 (asbestos) disposal, including bagging and cell depth of 1 m.
	Leachate	Subsurface seepage	Siting selection: The nearest groundwater bores are located 900 m north-east of the premises, where groundwater is 20 m below ground level
	Hydrocarbons		No acceptance of hydrocarbons at the landfill.
	Contaminated stormwater	Overland flow	500 mm high soil windrow surrounding premises to divert stormwater. Internal sump to collect and retain contaminated stormwater within the premises. Siting selection: <ul style="list-style-type: none"> Landfill sits outside the modelled 1:100 AEP Robe River flood extent; Landfill is located 900 m north west of the Robe River.
	Unauthorised fires	Air/windborne pathway	3 m wide firebreak to be installed around premises. Green waste is the only waste to be burnt at the premises, which will occur at a designated green waste burning location to prevent spread into other waste sources. Used Tyres will be disposed of at the premises by burial to prevent the risk of fires, however in a manner that will facilitate recovery should recycling become viable in the future.
	Vermin and scavenging animals	Direct contact	Regular covering of wastes to prevent vermin infestation. Boundary fencing to 1.8 m height with lockable gates to exclude. Siting selection: The nearest residential receptor is located within the Pannawonica townsite, 6 km north-east of the Premises.

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 3 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 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Residential town of Pannawonica	6 km north-east of the Premises. The Delegated Officer considers that due to distance there is no likely impact on the town of Pannawonica, so they are not considered receptors under this assessment.
Environmental receptors	Distance from prescribed activity
Surface water sources	Robe River is located 900 m south-east of the proposed landfill boundary.
Groundwater sources	The depth to groundwater is approximately 20 m below ground level at the proposed landfill location. The Bungaroo Creek Water Reserve (P1) is located 4.5 km to the south-west of the premises boundary. Groundwater directional flow The Delegated Officer considers this is an adequate separation distance to prevent subsurface seepage impacting groundwater. Groundwater is not considered a receptor under this assessment.
Priority flora	Two priority species have been located within a 10 km radius of the premises boundary. <ul style="list-style-type: none"> • One Priority 3 species <i>Triodia pisoliticola</i> • One Priority 4 species <i>Rhynchosia bungarensis</i> Neither species have been located within the proposed landfill area. The vegetation within the landfill area is of degraded quality. The Delegated Officer considers the proposed construction works are not likely to impact these priority flora species.
Threatened fauna	Three threatened fauna species have been located within a 10 km radius of the premises boundary, however were not located within the proposed landfill area: <ul style="list-style-type: none"> • <i>Rhinonictis aurantia</i> (Pilbara Leaf-nosed Bat) • <i>Dasyurus hallucatus</i> (Northern Quoll) • <i>Liasis olivaceus barroni</i> (Pilbara Olive Python) Neither species have been located within the proposed landfill area. The vegetation within the landfill area is of degraded quality. The Delegated Officer considers the vegetation does not represent ideal habitat for the threatened fauna, and that proposed construction works are not likely to impact these threatened fauna species.
Aboriginal heritage sites of	There are several registered sites adjacent to the proposed landfill area, however they are outside the landfill area and will not be

significance	impacted by the proposed works. The Delegated Officer considers that there is no likely impact upon these sites of significance, so they are not considered receptors under this assessment.
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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 4.

Licence L9419/2023/1 that accompanies this decision report authorises emissions associated with the operation of the premises.

The conditions in the issued licence, as outlined in Table 4 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4: Risk assessment of potential emissions and discharges from the premises during operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Operation (including time limited operations)								
Operation of landfill	Windblown rubbish	Wind dispersion causing impacts to amenity and fauna	Fauna	See section 3.1	C = Slight L = Unlikely Low Risk	Yes	Conditions 1, 5, 6	N/A
Operation of waste storage areas	Contaminated stormwater	Overland flow impacting surface water bodies	Robe River		C = Minor L = Unlikely Medium Risk	Yes	Condition 1	N/A
	Unauthorised fires	Air / windborne pathway causing impacts to surrounding native vegetation	Surrounding vegetation		C = Slight L = Unlikely Low Risk	Yes	Condition 1, 4, 5, 7	N/A

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 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 15 December 2023	None received	N/A
Local Government Authority advised of proposal on 15 December 2023	The Shire of Ashburton replied on 5 January 2024 confirming that the Shire raises no objection to the proposal any impacts to the Robe River and camping and recreational sites along the river (Pannawonica Gorge, Deepdale etc) should be considered.	The delegated officer notes the shires comments. Sensitive receptors are considered in the departments risk assessment for the application.
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advised of proposal on 15 December 2023	None received	N/A
Applicant was provided with draft documents on 2 April 2024	<p>The applicant responded on 18 April 2024 requesting:</p> <ul style="list-style-type: none"> Condition 3 be removed as the condition is considered overly prescriptive and an unnecessary administrative requirement for the operations team. Table references be corrected Change condition 10 report submission date to the 30 April to align with the other instruments held by the Licence Holder 	<p>The delegated officer agrees the draft condition 3 is overly prescriptive for the premises activities, and has replaced this condition with a less prescriptive standard condition. The updated condition still requires appropriate storage and prompt removal of non-conforming waste types but does not require detailed record keeping of each load.</p> <p>Table references updated.</p> <p>Report submission date updated in condition 10 as well as condition 11.</p>

5. Conclusion

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

Based on the premises having no sensitive receptors for odour and dust emissions, outlined in Table 3, the applicants request to have the daily cover requirements of putrescible waste reduced to weekly in the licence has been granted. Weekly cover of putrescible waste is considered suitable for the premises.

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.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY						
Application type						
Works approval	<input type="checkbox"/>					
Licence	<input checked="" type="checkbox"/>	Relevant works approval number:	W6484/2020/1	None	<input type="checkbox"/>	
		Has the works approval been complied with?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?		Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
		Date Report received: 20/09/2023				
Renewal	<input type="checkbox"/>	Current licence number:				
Amendment to works approval	<input type="checkbox"/>	Current works approval number:				
Amendment to licence	<input type="checkbox"/>	Current licence number:				
		Relevant works approval number:		N/A	<input type="checkbox"/>	
Registration	<input type="checkbox"/>	Current works approval number:		None	<input type="checkbox"/>	
Date application received		13/11/2023				
Applicant and Premises details						
Applicant name/s (full legal name/s)		Robe River Mining Co Pty Ltd				
Premises name		Pannawonica Landfill				
Premises location		Part of Mining Tenement ML 248SA				
Local Government Authority		Shire of Ashburton				
Application documents						
HPCM file reference number:		DER2023/000731				
Key application documents (additional to application form):		Licence application form Proof of occupier status Authorisation to act as rep of occupier Premises map Siting and location – flora Siting and location – fauna Licence application letter				
Scope of application/assessment						
Summary of proposed activities or changes to existing operations.		<p>Ongoing operation of a Category 64 class II or III putrescible landfill site (15,000 tonnes per annum capacity) and Category 62 solid waste depot (800 tonnes per annum capacity) as assessed and constructed under works approval W6484/2020/1. Key operational activities are specified in works approval W6484/2020/1.</p> <p>The applicant is requesting the cover requirements for putrescible wastes be revised from daily to weekly. The daily coverage of putrescible waste presents an operational challenge. Weekly covering of putrescible wastes will manage any potential dust and odour emissions from the facility and aligns with the low-risk rating</p>				

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity
Category 64 Class II or III putrescible landfill site	15 000 tonnes per annum
Category 62 Solid waste depot	800 tonnes per annum

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Mining lease / tenement <input checked="" type="checkbox"/> Expiry: 30/10/2033
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CPS No: 5639/4 Clearing permit amendment granted on 06/05/2021 for 145 hectares.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Licence not required.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Licence GWL 107677
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004</i> , <i>Environmental Protection (Controlled Waste) Regulations 2004</i> , <i>State Agreement Act xxxx</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Mining Act 1978</i>

<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	