



Application for Works Approval Amendment

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

Works Approval Number	W6284/2019/1
Works Approval Holder	Robe River Mining Co. Pty Ltd
ACN	008 694 246
File Number	DER2019/000437
Premises	<p>Mesa A/ Warramboe Iron Ore Mine</p> <p>Legal description –</p> <p>ML248SA, G08/82, G08/85, G08/90, L08/166, L08/178 and L08/177</p> <p>As defined by the Premises maps attached to the Revised Works Approval</p>
Date of Report	04 December 2023
Decision	Revised works approval granted

A/MANAGER, RESOURCE INDUSTRIES

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Works Approval W6284/2019/1 is held by Robe River Mining Co. Pty Ltd (Works Approval Holder) for the Mesa A/ Warrambo Iron Ore Mine (the Premises).

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the construction and operation of the Premises. As a result of this assessment, Revised Works Approval W6284/2019/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment 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

On 25 August 2023, the Works Approval Holder submitted an application to the department to amend Works Approval W6284/2019/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The amendment being sought is to change the location of the proposed landfill from the Mesa A waste dump to the Mesa C waste dump. The alternative location will meet all requirements for the design, construction, and operation of a landfill under the Works Approval.

The Works Approval Holder identified that the original landfill location at Mesa A waste dump would not have sufficient capacity to encapsulate the approved 1,000 tonnes of waste annually on an ongoing basis.

Mesa C waste dump landfill will operate as an inert landfill, accepting Inert Type 1 (conveyor belts, concrete and steel) and Type 2 (tyres and plastics) wastes. The Mesa C waste dump landfill is not proposed to be used for general putrescible wastes (except wooden packaging and pallets which are considered putrescible waste under the *Landfill Waste Classification and Waste Definition 1996* (as amended December 2009)).

This amendment is limited only to changes to Category 64 activities from the existing Works Approval. It should be noted that changes are related only to the location of the landfill and no change in production capacity for this category.

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 2020a).

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 Amendment Report are detailed in Table 1 below.

Table 1 also details the proposed control measures the Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Works Approval Holder controls

Sources / Activities	Emissions	Potential pathways	Proposed controls
Construction			
Construction of landfill facility at Mesa C waste dump	Dust	Air / windborne pathway	Existing conditions 1, 8 and 9 under W6284/2019/1 apply
Operation			
Disposal of inert and putrescible (wooden packaging and pallets only) waste into the landfill facility at Mesa C waste dump	Leachate	Leaching / seepage through base and embankments to soil and groundwater	Existing conditions 19, 20, 21, 26, and 27 under W6284/2019/1 apply
	Windblown waste	Air / windborne pathway	

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020a), the Delegated Officer has excluded employees, visitors, and contractors of the Works Approval Holder's 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 environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020b)).

Table 2: Sensitive environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Priority Ecological Communities (PECs)	<p>The following PECs are located within the prescribed premises:</p> <ul style="list-style-type: none"> Priority 1 <i>Subterranean invertebrate communities of mesas in the Robe Valley region adjacent to the proposed landfill location</i> Priority 1 <i>Subterranean invertebrate communities of pisolitic hills in the Pilbara</i> Priority 3 <i>Sand sheet vegetation (Robe Valley)</i>.
Threatened and Priority Fauna	<p>Within approximately 1 km and within the prescribed premises (managed under Ministerial Statement (MS) 1112) are:</p> <ul style="list-style-type: none"> Northern quoll (<i>Dasyurus hallucatus</i>) - Endangered Pilbara Leaf-nosed Bat (<i>Rhinonictis aurantia</i> (Pilbara form)) - Vulnerable Ghost Bat (<i>Macroderma gigas</i>) - Vulnerable Mesa A Paradraculoides (<i>Paradraculoides anachoretus</i>) - Vulnerable Mesa A Lagynochthonius pseudoscorpion (<i>Lagynochthonius asema</i>) - Priority 1 Mesa B/C Paradraculoides (<i>Paradraculoides blythius</i>) – Vulnerable ~0.35 km from the proposed landfill location

Environmental receptors	Distance from prescribed activity
	<ul style="list-style-type: none"> Fortescue grunter (<i>Leiopotherapon aheneus</i>) - Priority 4.
Vegetation and Flora	<p>The locally significant riparian communities of the Robe River and Warrambo Creek are located within and adjacent to the Premises.</p> <ul style="list-style-type: none"> <i>Abutilon</i> sp. Onslow (F. Smith s.n. 10/9/61) Priority 1, approximately 4 km west of the prescribed premises boundary <i>Triodia pisolitica</i> Priority 3 within the prescribed premises <i>Rhynchosia bungarensis</i> Priority 4 within the prescribed premises ~2.2 km northeast from the proposed landfill location <i>Goodenia nuda</i> Priority 4 within the prescribed premises
Surface water	<p>The Robe River passes adjacent to the east and intersects the eastern boundary of the Premises.</p> <p>Warrambo Creek intersects the south-western portion of the Premises.</p> <p>Other minor ephemeral tributaries are located within the Premises.</p>
Groundwater	<p>Groundwater monitoring bores at Mesa C indicate highest seasonal groundwater levels of 72 mRL.</p> <p>The Works Approval Holder states that '<i>the area will be progressively backfilled with mineral waste to 75 mRL before disposing of waste to fulfill this requirement</i>'. This relates to waste and the highest seasonal and expected post mining groundwater is no less than 3 m (waste dump).</p>
Proclaimed Groundwater and Surface Water Areas	<p>The Premises is located within the Proclaimed Pilbara Groundwater and Surface Water Areas.</p>
Acid sulphate soils	<p>No known risk within the prescribed premises boundary</p>

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020a) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Works Approval Holder 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 Works Approval Holder'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 Works Approval Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

The Revised Works Approval W6284/2019/1 that accompanies this Amendment Report authorises construction and time-limited operations. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence amendment is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the Premises i.e., landfill facility activities. A risk assessment for the operational phase has been included in this Amendment 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 Event					Risk rating ¹ C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
Construction								
Construction of landfill facility at Mesa C waste dump	Dust	Air/windborne pathway Dust deposition on vegetation affecting photosynthesis	Surrounding vegetation	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	Conditions 1, 8 and 9	N/A
Time limited Operation								
Disposal of inert and putrescible (wooden packaging and pallets only) waste into landfill facility at Mesa C waste dump	Leachate	Leaching / seepage through base and embankments to soil and groundwater Soil and groundwater contamination	Soil Groundwater Surrounding vegetation	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	Conditions 19, 20, 21, 26, and 27	N/A
	Windblown waste	Air/windborne pathway Impacts to adjacent native vegetation	Surrounding vegetation					

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

Note 2: Proposed Works Approval Holder's 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
Works Approval Holder was provided with draft amendment on 27 November 2023	No comments were received, only to request to waive the remaining consultation period.	-

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Works Approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 5 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

Table 5: Summary of works approval amendments

Condition no.	Proposed amendments
Works approval history	Inclusion of the proposed amendment for the change in location of the landfill from the Mesa A waste dump to the Mesa C waste dump.
Figures 1, 6, 9, 11, 12, and 15	Update figures to remove the original landfill location at Mesa A waste dump and include the new proposed landfill location at Mesa C waste dump.

References

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

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY					
Application type					
Works approval	<input type="checkbox"/>				
Licence	<input type="checkbox"/>	Relevant works approval number:		None	<input type="checkbox"/>
		Has the works approval been complied with?			Yes <input 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 submitted?			Yes <input type="checkbox"/> No <input type="checkbox"/>
		Date Report received:			
Renewal	<input type="checkbox"/>	Current licence number:			
Amendment to works approval	<input checked="" type="checkbox"/>	Current works approval number:	W6284/2019/1		
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		25/08/2023			
Applicant and Premises details					
Applicant name/s (full legal name/s)		Robe River Mining Co. Pty Limited			
Premises name		Mesa A / Warrambo Iron Ore Mine			
Premises location		State Agreement Mining Lease ML248SA, General Purpose Leases G08/82, G08/85 and G08/90 and Miscellaneous Licences L08/166, L08/177 and L08/178.			
Local Government Authority		Shire of Ashburton			
Application documents					
HPCM file reference number:		DER2019/000437			
Key application documents (additional to application form):		<p>Cover letter with Table 1: Overview of requirements of Works Approval W6284/2019 relevant to the design, construction, and operation of the proposed waste dump landfill.</p> <p>Figure – Indicative Location of the Proposed Waste Dump Landfill at Mesa C</p>			

Scope of application/assessment		
Summary of proposed activities or changes to existing operations.	<p>Amendment to change the location of the landfill under works approval W6284/2019/1, from the Mesa A waste dump to the Mesa C waste dump. Alternative location will meet all requirement for the design, construction, and operation of a landfill under the works approval.</p> <p>Mesa C waste dump landfill will operate as an inert landfill, accepting Inert Type 1 (conveyor belts, concrete and steel) and Type 2 (tyres and plastics) wastes. The Mesa C waste dump landfill is not proposed to be used for general putrescible wastes (except wooden packaging and pallets which are considered putrescible waste under the <i>Landfill Waste Classification and Waste Definition 1996 (as amended December 2009)</i>).</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 capacity	Proposed changes to the production capacity (amendments only)
Category 5: Processing or beneficiation of metallic or non-metallic ore	35,000,000 tonnes per annual period	No change
Category 6: Mine dewatering	7,000,000 tonnes per annual period	No change
Category 64: Class II or Class III putrescible landfill site	1,000 tonnes per annual period	Only change related to the location of a landfill, but no change to production capacity.
Category 73: Bulk storage of chemicals etc.	620 m ³ in aggregate (below threshold currently)	No change
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"/>	Referral decision No: N/A Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 1112 EPA Report No: 1640
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: EPBC 2016/7843
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:

Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: Expiry date: If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
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"/>	No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Licence / permit not required.
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"/>	Name: N/A Type: Proclaimed Groundwater Area/Surface Water Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: North West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <u>WQPN 25</u>)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <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>Iron Ore (Robe River) Agreement Act 1964</i> <i>Mining Act 1978</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Classification: N/A Date of classification: N/A