



Application for Licence

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

Licence Number	L9337/2022/1
Applicant	Atlas Iron Pty Ltd
ACN	110 396 168
File number	DER2022/000284
Premises	Miralga Creek Direct Shipping Ore Project Abydos Link Road East Mining tenement M45/1282 MARBLE BAR WA 6760 As defined by the premises maps attached to the issued licence
Date of report	18 August 2022
Decision	Licence granted

Terrel MacGregor

A/Manager, Resource 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 L9337/2022/1 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

The application is to seek a licence relating to the operation of an iron ore crushing and screening facility, approximately 100 km south-east of Port Hedland. The construction of the iron ore crushing and screening facility was approved under works approval W6494/2021/1 issued on 9 April 2021. Compliance with conditions 1, 2 and 3 of the works approval relating to the construction phase was confirmed on 18 March 2022.

On 6 June 2022, the applicant submitted an application for a licence to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The crushing and screening facility is located on the site's Run of Mine (ROM) pad, along side a diesel refuelling station, chemical storage facilities, a workshop used for vehicle and equipment maintenance and washdown, diesel generators and office facilities. Stormwater diversion structures have been constructed to divert uncontaminated stormwater around the ROM pad, while water collected from within the ROM pad area all drains to a sedimentation basin.

To the south of the ROM pad and within the prescribed premises boundary is an open pit mine and waste rock dump. The applicant is also seeking to bury a quantity of used tyres in the waste rock formation. Although the quantity is below the prescribed amount to trigger category 63 under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations), it has been assessed as part of this application as the disposal of tyres is classified as a prescribed alteration of the environment.

The premises relates to the category and assessed design capacity under Schedule 1 of the EP Regulations which are defined in licence L9337/2022/1. 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 licence L9337/2022/1.

2.3 Part IV of the EP Act

This application relates to a small part of a proposal that has been assessed under Part IV of the EP Act (EPA report 1689) and was approved in November 2020 under Ministerial Statement number 1154 (MS 1154). As part of the assessment by the Environmental Protection Authority (EPA), it was also assessed on behalf of the Commonwealth regarding matters of national environmental significance.

The EPA assessed the following activities at Miralga East, Miralga West and Sandtrax sites:

- above watertable mining from five open pits (three at Miralga East)
- construction of three waste dumps

- construction of supporting infrastructure (access roads, mine operation centre, laydown areas, administration areas, explosive magazine, fuel storage area, haulage road and ROM stockyard)
- processing of ore (mobile crushing and screening plant)
- use of existing borefields
- clearing of 219.8 hectares (ha) of native vegetation within a 556.8 ha development envelope
- six separate development envelopes

The scope of this assessment under Part V of the EP Act is limited to assessing a category 5 activities (crushing and screening of iron ore) at the Miralga West operation.

The EPA identified the following key environmental factors during the course of its assessment of the proposal:

- Flora and Vegetation – potential impacts from clearing of 219.8 ha of native vegetation, including impact to priority species, indirect impacts from dust, hydrocarbon spills, weeds, fragmentation, reduced groundwater levels from borefield operations and changes to fire regimes.
- Terrestrial Fauna – direct and indirect impacts to conservation significant habitats and fauna, including ghost bats, Pilbara leaf-nosed bats and northern quolls, as a result of mining.

Within the prescribed premises relating to this licence application at Miralga West, priority flora and significant fauna species were identified. The EPA report notes that the bats in the area may be impacted by nighttime noise and light emissions. It also notes that the Shaw River which passes through the prescribed premises, is utilized by a number of significant fauna species.

On 19 February 2021, EPA Services confirmed that the works approval application to construct the Miralga Creek Direct Shipping Ore Project crushing and screening facility is consistent with the key characteristics specified in the proposal approved under MS 1154.

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 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
Operation			
Dust	Crushing of material, vehicle movements, lift-off from stockpiles and/or stored product.	Air / windborne pathway	Use of water carts Speed limits on unsealed roads Operation of water sprays on crushing and screening facility All transfer chutes to be covered Regular inspections and maintenance of dust suppression equipment Dust generating activities to cease if there is a major malfunction of dust suppressing equipment
Noise	Crushing and screening of material	Air / windborne pathway	Crushing and screening facility will operate 12 hours per day, day shift only.
Contaminated stormwater - sediment	Crushing and screening of material	Contamination of runoff	Stormwater diversion around the crushing and screening facility Stormwater from the ROM pad to be directed to the sedimentation basin Sedimentation basin to accommodate a 5% Annual Exceedance Probability (AEP) event
Contaminated stormwater - hydrocarbons	Operation of machinery	Contamination of runoff	All hydrocarbons to be stored in impermeable bunds. Storage tanks and piping to have secondary containment. Diesel generators and pumps to be banded. Spill kits available at hydrocarbon storage areas and on service trucks.
Waste to land	Tyre disposal	Burial	Tyres to be disposed of in a waste rock landform, as follows: <ul style="list-style-type: none"> • In batches separated from each other by at least 100 mm of soil and each consisting of not more than 40 m³ of tyres reduced to pieces; or • In batches separated from each other by at least 100 mm of soil and each consisting of not more than 1,000 whole tyres. As soon as practicable following completion of the final waste levels in the area of tyre disposal, a 500 mm cover of soil will be applied.

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

Human receptors	Distance from prescribed activity
Panorama Homestead	20 km south-east of the plant (not considered a receptor due to distance)
Environmental receptors	Distance from prescribed activity
Cultural sites (not registered)	Within premises boundary (not considered a receptor as they are not expected to be impacted by this activity)
Shaw River	Within premises boundary – 700m east of the ROM pad
Threatened and priority flora	Within premises boundary – 400m west of the ROM pad
Threatened fauna Including ghost bats, Pilbara leaf-nosed bats and northern quolls	Species have been recorded within the project area and are known to use the Shaw River watercourse for habitat. Vulnerable species of bats have colonised a cave system approximately 4kms to the south of the ROM pad, near the open pit mining area.

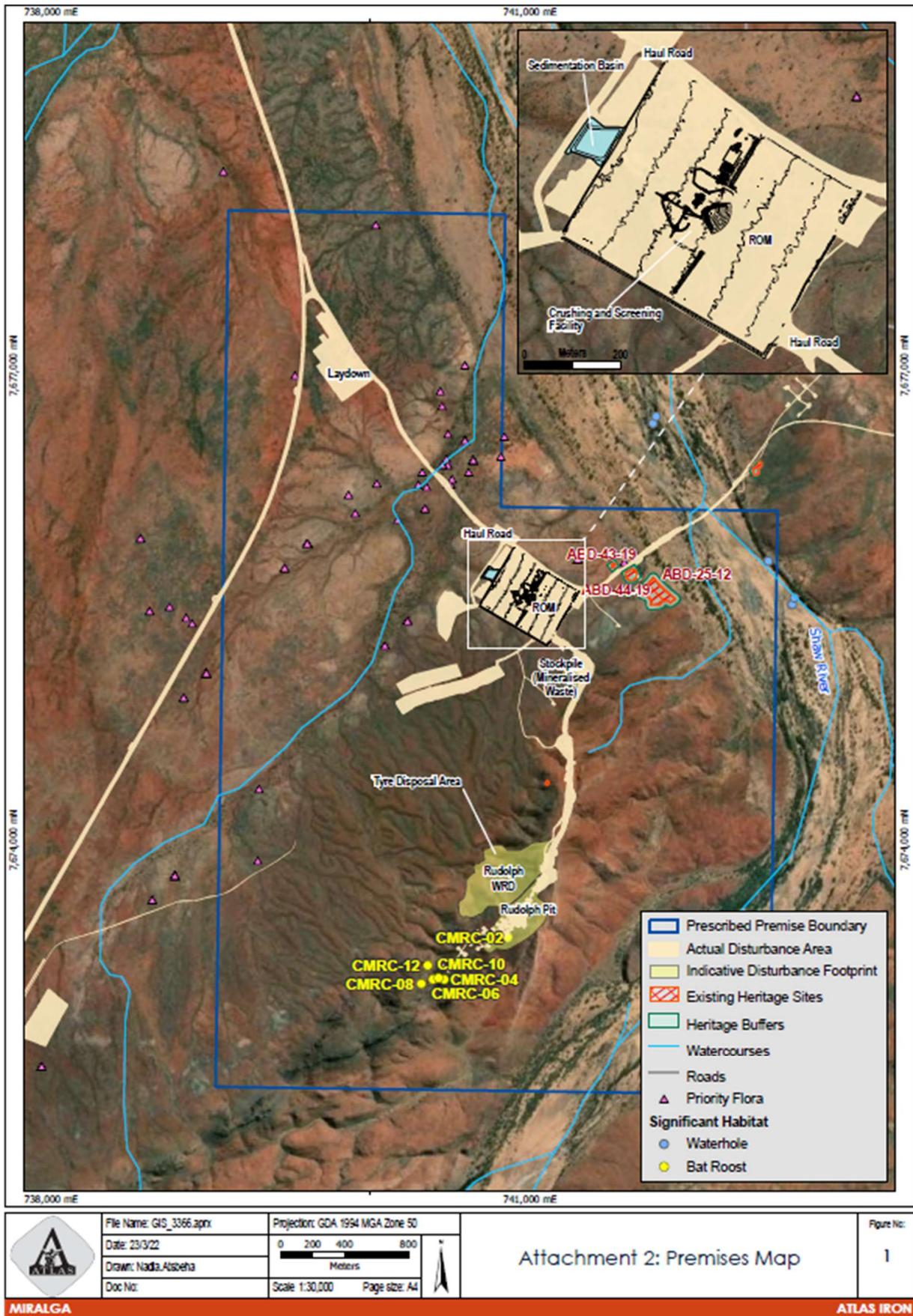


Figure 1: Distance to sensitive receptors

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.

Licence L9337/2022/1 that accompanies this decision report authorises emissions associated with the operation of the premises i.e. category 5 activities.

The conditions in the issued licence, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

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

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Operations								
Screening, crushing, unloading, loading and storage of material Vehicle movements	Dust	Air / windborne pathway causing sedimentation of watercourse or impacting flora	Shaw River Adjacent priority flora	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	Condition 1	N/A
	Noise	Air / windborne pathway impacting fauna behaviour patterns	Bats (vulnerable species)		C = Minor L = Rare Low Risk			
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Shaw River Priority flora		C = Minor L = Possible Medium Risk			
	Hydrocarbons	Direct discharge to soil or contamination of stormwater used for dust suppression potentially causing ecosystem disturbance or impacting surface water quality	Shaw River Adjacent priority flora		C = Minor L = Rare Low Risk		N/A	
Disposal of used tyres	Contaminated fire water	Discharge to land or surface water causing	Shaw River Priority flora		C = Minor L = Rare		Condition 1	

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
		contamination			Low Risk			

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
EPA Services advised of works approval application on 10 February 2021 for this premises	Response received 17 February 2021 that the application was in alignment with the approval granted under MS 1154	Noted
Application advertised on the department's website on 18 July 2022	None received	N/A
Local Government Authority (LGA) advised of licence application on 26 July 2022	Response received 27 July – The LGA has no objections or comments	Noted
Applicant was provided with draft documents on 17 August 2022	Responded 17 August 2022 with no comments	N/A

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.

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 1: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)						
Application type						
Licence	<input checked="" type="checkbox"/>	Relevant works approval number:	W6494/2021/1	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 checked="" type="checkbox"/>	
		Environmental Compliance Report submitted?			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Date report received:		8 February 2022 and 17 March 2022		
Date application received		6 June 2022				
Applicant and premises details						
Applicant name/s (full legal name/s)		Atlas Iron Pty Ltd (110 396 168)				
Premises name		Miralga Creek Direct Shipping Ore Project				
Premises location		M45/1282				
Local Government Authority		Shire of East Pilbara				
Application documents						
HPCM file reference number:		DER2022/000284				
Key application documents (additional to application form):		MIR Crusher Supplementary Info ASIC certificate				
Scope of application/assessment						
Summary of proposed activities or changes to existing operations.		<p><i>Licence application</i></p> <p>Operation of a crushing and screening facility at the Run of Mine pad where ore will be crushed, screened and stockpiled prior to being transported by road train to the existing Utah Point port facility.</p> <p>The applicant has also applied to dispose of tyres in the Miralga West waste rock dump (within the prescribed premises).</p>				
Category number/s (activities that cause the premises to become prescribed premises)						
Table 1: Prescribed premises categories						
Prescribed premises category and description		Proposed production or design capacity				
Category 5: Processing or beneficiation of metallic or non-metallic ore		Design capacity 7,008,000 tonnes per annum Expected production rate of 2,500,000 tonnes per annum				
Legislative context and other approvals						
Has the applicant referred, or do they intend to refer, their proposal to the EPA		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Referral decision No:		

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
under Part IV of the EP Act as a significant proposal?		Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" 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: 1154 EPA Report No: 1689
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: 2019/8601
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input checked="" type="checkbox"/> Expiry: 23/03/2042 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? Mining tenure
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"/>	CPS No: N/A Authorised under MS 1154
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"/>	N/A
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"/>	Application reference No: Licence/permit No: GWL176408(4) and GWL168045(7)
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: Pilbara Type: Proclaimed Groundwater Area/Surface Water Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
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: P1 / P2 / P3 / N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)

<p>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>)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p><i>Dangerous Goods Safety Act 2004</i> <i>Environmental Protection (Controlled Waste) Regulations 2004</i> <i>Environmental Protection Regulations 1987</i> <i>Native Title Act 1993</i></p>
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</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>	<p>Classification: N/A</p>