



Application for Licence

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

Licence Number	L9451/2024/1
Applicant	Hedland Mining Pty Ltd
ACN	650 697 368
File number	DER2024/000451
Premises	Poondano Iron Ore Project Part of mining tenement M45/1189I PIPPINGARRA WA 6722 As defined by Schedule 1 and 2 of the issued licence
Date of report	18 December 2024
Decision	Licence granted

**A/MANAGER, RESOURCE INDUSTRIES
INDUSTRY REGULATION (STATEWIDE DELIVERY)**

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 operations of the premises. As a result of this assessment licence L9451/2024/1 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 available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary and overview of premises

On 22 August 2024, Hedland Mining Pty Ltd (the applicant) applied for a licence under section 57 of the *Environmental Protection Act 1986* (EP Act) for the Poondano Iron Ore Project (the premises). The premises is situated in Pippingarra, within mining tenement M45/1189I, approximately 25 kilometres (km) southeast of Port Hedland. The mining tenement was acquired by Poondano Mining Company Ltd in 2023 and an agreement was executed with the applicant to operate the premises.

Works approval W6853/2023/1 was granted at the premises on 14 March 2024 for the construction and time limited operations of a mobile crushing and screening plant and putrescible landfill. Construction of the infrastructure associated with the mobile crushing and screening plant was completed in October 2023 and an Environmental Compliance Report was submitted and assessed by the department. Time limited operations of the plant commenced on 5 August 2024.

This decision report assesses the risk associated with the continued operations of the mobile crushing and screening infrastructure installed under works approval W6853/2023/1. At the time of writing, construction of the putrescible landfill had not commenced therefore it was not included in the scope of the assessment.

Table 1 shows the prescribed premises category and proposed throughput sought in the licence application submitted to the department. Description of the premises category and assessed design capacity are also shown on the licence. All prescribed premises categories are defined under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations).

It is noted that works approval W6853/2023/1 had assessed crushing and screening activities at a throughput of up to 300,000 tonnes per annum, while the applicant has proposed an operational throughput of up to 1,200,000 tonnes per annum for licence L9451/2024/1. As such, the department has assessed the potential risk of impact associated with the proposed activities at the higher throughput.

Infrastructure, equipment and associated activities outlined on the licence have been assessed in accordance with *Guideline: Risk Assessments* (DWER 2020b).

Table 1: Prescribed premises categories

Classification of Premises	Description	Proposed throughput
Category 5	<p>Processing or beneficiation of metallic or non-metallic ore: premises on which —</p> <ul style="list-style-type: none"> metallic or non-metallic ore is crushed, ground, milled or otherwise processed; or tailings from metallic or non-metallic ore are reprocessed; or tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam. 	1,200,000 tonnes per annum

2.2.1 Project history

Between 2011 and 2015 several instruments were granted under Part V, Division 3 of the EP Act for the construction and operation of infrastructure at the Poondano Iron Ore Project. Over time, several leaseholders including Process Minerals International Ltd and Polaris Metal Pty Ltd operated the premises. Operations encompassed Poondano Southwest and Poondano Central with open pits and mesas mining respectively. Poondano West was part of the project however mining never commenced. In 2014 the premises was placed in care and maintenance and land rehabilitation of Poondano West commenced.

2.2.2 Operations

Iron ore is sourced from mesas 2, 3, 4 and 9 and surface boulder scree located to the east of the processing plant. The ore is loaded into haul trucks and delivered to a temporary run of mine (ROM) pad adjacent to the crushing and screening circuit. The scree is then processed through the plant with the resulting fines and lump-sized ore stockpiled and subsequently transported via covered road trains to Port Hedland. The waste material generated is stockpiled at the premises to be used for future rehabilitation purposes. The crushing and screening plant operates 24 hours per day and an approximate throughput of 200 tonnes per hour is expected. The life-of-mine is predicted to be approximately 12 months.

Additional activities occur within the project area, however as their throughput / aggregated quantities do not trigger a prescribed category under Schedule 1 of the EP regulations, they are not listed and regulated under the licence accompanying this decision report. Should activities throughput or description change to meet those listed under Schedule 1 part 1 and 2 of the EP Regulations the applicant must contact the department and seek an amendment of the licence. Under section 56(1) of the EP Act, *it is an offence to cause or increase emissions when not done in accordance with the licence and any conditions to which the licence is subject to*. Table 2 lists the activities at the premises that have the potential to trigger a category under Schedule 1 of the EP Regulations if their throughput / aggregate quantity changes.

Table 2: Other activities within the premises that do not currently meet a prescribed category under Schedule 1 and 2 of the EP Regulations

Activity description	Potential category	Current throughput / aggregate quantity	Trigger production / design capacity under Schedule 1 of the EP Regulations
Bulk Storage of hydrocarbons and other chemicals	73	Aggregate quantity below 1,000 cubic meters (m ³)	1000 m ³ in aggregate
Sewage Facility - Small leach drain system to manage wastewater	85	Below 20 m ³ per day	More than 20 m ³ but less than 100 m ³ per day
Electric power generation using a fuel	52	Approximately 2 megawatts (MW)	10 MW or more in aggregate using a fuel other than natural gas

2.2.3 Description of Infrastructure

The Mobile plant consists of a three-stage, track-mounted, hydraulic unit comprising a jaw crusher, a cone crusher and a horizontal screener. Radial stackers stockpile the material. The ore is reclaimed by a front-end loader from the ROM pad on the south, east and western sides. The ore is loaded onto the dump hopper of the jaw crusher with a grizzly feeder controlling the level of crushed ore in the primary crusher chamber. Smaller, sand-sized material bypasses any additional crushing and is stockpiled. The remaining material is transferred to the horizontal screener where it is separated with fine ore and lump stockpiled by independent radial stackers. All oversized material (i.e. particles sized over 40 mm) is fed into the cone crusher followed by the horizontal screener in a closed loop crushing circuit. A mobile crushing and screening plant process flow chart is shown in Figure 1.

Dust minimisation measures have been fitted on individual components and include spray bars, covered transfer chutes and an encapsulated tail of jaw and under cone crusher. These measures are expected to be actively used to reduce the risk of dust to surrounding sensitive receptors.

A stormwater diversion bund surrounding the processing area, ROM pad and ore stockpile area directs any contaminated runoff to two catchment sumps where runoff is left to evaporate. Regular inspections are undertaken to determine whether the removal of sediments is required.

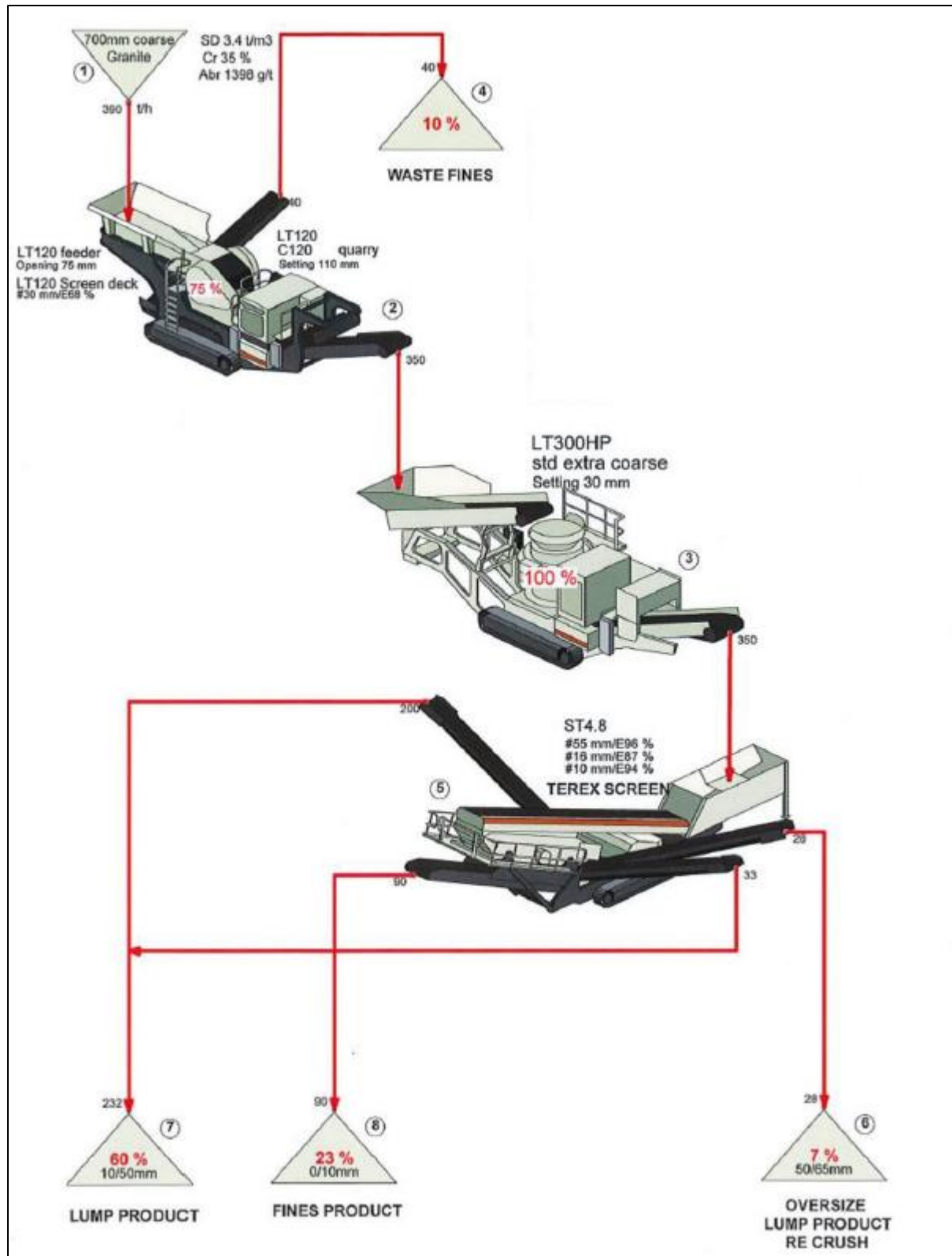


Figure 1: Mobile crushing and screening plant process flow chart

2.3 Other Approvals

2.3.1 Mining Act 1978

Recommencement of the Poondano Iron Ore Project started in Q1 2024 under existing mining proposals, registration IDs 28231, 34032 and 39069. The applicant did not submit a mining proposal to the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) for Poondano Iron Ore crushing and screening activities as the project does not meet the definition of “mining” activities as defined under the *Mining Act 1978*.

The Delegated Officer notes that a mining proposal for a small mining campaign of direct shipping ore to the east of the premises was undergoing assessment at the time of writing (registration ID 120077).

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 2020b).

To establish a risk event there must be an emission, a receptor exposed to that emission through an identified actual or likely pathway, and a potential adverse effect on that receptor from the exposure.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathways considered in this decision report and associated with the premises operations are detailed in Table 3.

Table 3: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Operation			
Dust	Crushing and screening of material, vehicle movements on unsealed roads, loading and unloading activities	Air / windborne pathway	Plant individual components fitted with dust-minimising measures such as water sprays and hydraulically driven water pumps. Water carts used to minimise visible dust including that surrounding ROM pads. Vehicle speed limit restrictions in use, and speed reduced when considerable dust is present.
Sediment-laden / contaminated stormwater		Overland runoff, infiltration	Stormwater bunds used to direct non-contaminated stormwater away from the crushing and screening infrastructure. Stormwater bunds used to direct contaminated stormwater to catchment sumps located to the north of the processing plant. Drainage structures monitored regularly including following heavy rainfall events.
Light		Air pathway	On the application for a licence the applicant did not propose any controls for light

Emission	Sources	Potential pathways	Proposed controls
			<p>emissions, however, this was taken to be an oversight as controls for light emissions were proposed and agreed to during the assessment of the works approval application.</p> <p>The controls below were proposed as part of the application for a works approval and have been considered when assessing the risks associated with light emissions to receptors (Table 5).</p> <p>Use of four light towers for night operations with light directed downwards and partially shielded.</p> <p>Implementation of mitigation measures to control light spill, use of timers and motion sensors.</p> <p>Implementation of National Light Pollution Guidelines for Wildlife (DCCEE, 2023).</p>
Noise / Vibration	Crushing and screening of material, general operational activities (including pumps, diesel generators etc.), warning alarms and sirens (including that from transport).	Air and ground pathway	<p>All equipment maintained and operated in accordance with manufacturer specifications.</p> <p>Awareness and implementation of requirements under <i>the Environmental Protection (Noise) Regulations 1997</i>.</p> <p>All engines and generators fitted with sound-attenuating measures.</p> <p>Noise awareness included in site induction.</p>
Hydrocarbon spill	Spills when refueling, faulty vehicles and equipment	Overland runoff and infiltration	<p>All hydrocarbon storage designed and constructed in accordance with Australian Standards: AS1940–2004, AS/NZS 3833:2007 or AS3780- 2008 as applicable and the <i>Dangerous Good Safety Act 2004</i>.</p> <p>Spill kits - located at strategic locations throughout the project area - used.</p> <p>Bowser and fuel delivery inlet with drip trays used for refuelling with sumps collecting any spillages.</p> <p>Hydrocarbon wastes segregated and removed from the premises for disposal by a licensed contractor.</p> <p>Spills-related incidents reported and investigated.</p> <p>Equipment and vehicles subject to regular maintenance to reduce the risk of spills and leaks.</p>

3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020b), the Delegated Officer has excluded the applicant's employees, visitors and contractors from its assessment. Protection of these parties generally involves different exposure risks and prevention strategies regulated under other state legislation.

Table 4 summarises potential human and environmental receptors that could be impacted by the emission and discharges at the premises. For the avoidance of doubt, all receptors within and surrounding the premises that may be reasonably thought of, have been listed. However, in accordance with *Guideline: Environmental Siting* (DWER 2020a) where a potential or likely pathway to exposure does not exist, receptors have not been considered further on the risk assessment table (Table 5). An explanation of the reasoning behind the exclusion from Table 5 is shown in Table 4.

Table 4: Sensitive human and environmental receptors and distance from prescribed activities

Human receptors	Distance from prescribed activity
Pippingarra Station homestead	Approximately 4 km to the west of the processing area. <i>Given the separation distance, the homestead is unlikely to be affected by the operations. As an actual or likely pathway does not exist this receptor has not been considered further in this assessment.</i>
Environmental receptors	Distance from prescribed activity
<u>Flora</u> Pre-European remnant vegetation Three priority 3 taxa <i>Euploca mutica</i> . <i>Triodia chichesterensis</i> . <i>Gymnanthera cunninghamii</i> . <u>Fauna</u> Endangered under the <i>Environmental Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) and <i>Biodiversity Conservation Act 2016</i> (BC Act): <i>Dasyurus hallucatus</i> (Northern Quoll) Priority 4 under the EPBC Act: <i>Pseudomys chapmani</i> (Western Pebble-mound Mouse)	Surrounding the proposed activities area. Within the mining tenement, approximately 7 km east of the crushing and screening plant area. <i>Given the separation distance, these priority 3 taxa are unlikely to be affected by the proposed activities. As an actual or like pathway does not exist these receptors have not been considered further in this assessment.</i> Across the mining tenement. 480m from the project area.

<p><u>Fauna</u> (cont'd)</p> <p>Vulnerable under the EPBC Act and BC Act</p> <p><i>Rhinonictoris aurantia</i> (Pilbara Leaf-nosed Bat)</p> <p><i>Macroderma gigas</i> (Ghost Bat)</p>	<p>Across the mining tenement.</p>
<p><u>Groundwater</u></p> <p>Proclaimed groundwater area regulated under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act).</p> <p>The depth of groundwater at Poondano Iron Ore Mining Project is approximately 11 – 13 meters below ground (mbgl). Its salinity ranges between 1000 and 3000 mg/L.</p>	<p>Underlying.</p>
<p><u>Surface water</u></p> <p>Proclaimed surface water area under the RIWI Act (Pilbara surface water area)</p> <p>Locally significant watercourse:</p> <p>Petermarer Creek</p> <p>Beebingarra Creek and tributaries</p> <p>Several smaller drainage lines of ephemeral nature.</p>	<p>Within the project area.</p> <p>Approximately 7 and 3 km east of the project area respectively.</p> <p><i>Given the separation distance, they unlikely to be affected by the proposed activities. As an actual or like pathway does not exist these receptors have not been considered further in this assessment.</i></p> <p>Within the project area.</p>

3.2 Risk ratings

In accordance with *Guideline: Risk Assessments* (DWER 2020b), risk ratings have been assessed for each identified emission source and give consideration to potential source-pathway-receptor linkages as identified in Section 3.1. Where linkages are incomplete, they are not 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. Any need for additional controls is documented and justified in Table 5.

Licence L9451/2024/1 accompanying this decision report authorises emissions associated with the operation of the premises.

The conditions in the issued licence, as outlined in Table 5 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 5: Risk assessment of potential emissions and discharges from the premises during operation

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				
Operation								
Crushing and screening of material, vehicle movements on unsealed roads, loading and unloading and general operational activities including the use of warning alarms and sirens	Dust	Pathway: Air / windborne pathway Impacts: Deterioration of native vegetation health and consequently fauna.	Pre-European native vegetation, threatened, vulnerable and priority fauna	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1 and 2	Applicant's proposed controls have been conditioned on the licence in accordance with DWER Guideline: Risk Assessments (DWER 2020b). The Delegated Officer has not deemed necessary to add any additional regulatory controls to those proposed by the applicant.
	Noise	Pathway: Air / ground pathway Impacts: Displacement of native fauna	Threatened, vulnerable and priority fauna	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	N/A	Distance to the nearest recorded threatened fauna is of approximately 480m therefore the disturbance to habitat is likely to be minimal. No regulatory controls are required under the licence.
	Light	Pathway: Air pathway Impacts: Reduced feeding, hunting and travel of native	Threatened, vulnerable and priority fauna	Refer to Section 3.1	C =Slight L = Unlikely Low Risk	Y	Condition 1	Applicant's proposed controls have been conditioned on the licence in accordance with DWER Guideline: Risk Assessments (DWER 2020b). Minimal onsite and offsite impact from light emissions on fauna receptors is expected due to the short operating life of the project (12 months).

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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				
		fauna impacting daily activity and reproduction						The Delegated Officer has not deemed necessary to add any additional regulatory controls to those proposed by the applicant for works approval W6853/2023/1.
	Sediment laden stormwater	Pathway: Overland runoff Impacts: Deterioration of flora and fauna health and contamination of surface water	Native vegetation, threatened, vulnerable and priority fauna, drainage lines within the project area.	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition 1	Applicant's proposed controls have been conditioned on the licence in accordance with DWER Guideline: Risk Assessments (DWER 2020b). The Delegated Officer has not deemed necessary to add any additional regulatory controls to those proposed by the applicant.
Hydrocarbon storage and refueling activities	Contamination of land and water	Pathway: Overland runoff and infiltration Impacts: Contamination of soil, surface water and groundwater	Soil, surface and groundwater	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	N/A	No regulatory controls are required as the general provisions of the <i>Environmental Protection (Unauthorised Discharge) Regulations 2004</i> apply. Hydrocarbon storage is regulated under the <i>Dangerous Goods Safety Act 2004</i> .

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

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

4. Consultation

Table 6 provides a summary of the consultation undertaken by the department.

Table 6: Consultation

Consultation method	Comments received	Department response
The application was advertised on the department's website on 16 September 2024	No comments were received.	N/A
The Local Government Authority was advised of the proposal on 11 September 2024	No comments were received.	N/A
The applicant was provided a copy of the draft report and licence on 15 November 2024.	<ul style="list-style-type: none"> The applicant confirmed that the current electrical power aggregate throughput is approximately 2 MW. The applicant clarified that category 5 throughput will be approximately 1,200,000 tonnes per annum. The applicant requested to amend the first sentence of section 2.2.2 to clarify that <i>'Ore is sourced from mesas 2, 3, 4 and 9 and surface boulder scree located to the east of the processing plant'</i> The applicant requested the following sentence to be placed on section 2.3.1 of the decision report: <i>'Recommendation of the Project started in Q1 2024 under existing mining proposals (Reg ID 28231, Reg ID 34032, Reg ID 39069)'</i>. The applicant requests to wave the consultation period and requests the licence to be issued as soon as possible. 	<p>Decision report amended.</p> <p>Licence and decision report amended. The risk assessment (Section 3.2) was updated to consider production capacity up to 1,200,000 tonnes per annum. No additional conditions were included in the licence as a result of the updated risk assessment.</p> <p>Decision report amended.</p> <p>Decision report amended.</p> <p>Noted.</p>

The following agencies were consulted during the assessment of the related works approval (W6853/2023/1):

- Local Government Authority
- Department of Mines, Energy, Industry, Regulation and Safety
- Department of Biodiversity, Conservation and Attractions

Details of the comments received, and departmental responses can be found on the decision report supporting the works approval (A2263025).

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

- Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- Department of Water and Environmental Regulation (DWER) 2020a, *Guideline: Environmental Siting*, Perth, Western Australia.
- DWER 2020b, *Guideline: Risk Assessments*, Perth, Western Australia.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW, 2023) *National Light Pollution Guideline for Wildlife*. Canberra, Australian Capital Territory.