Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Works Approval Amendment

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

Works Approval Number	W6831/2023/1
Works Approval Holder	Image Resources NL
ACN	063 977 579
File Number	APP-0026275
Premises	Atlas Project Munbinea Road NAMBUNG WA 6521 Legal description – Part of mining tenement M 70/1305 As defined by the premises maps attached to the revised works approval
Date of Report	24/03/2025
Decision	Revised works approval granted

Kang Tam
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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

Works approval W6831/2023/1 is held by Image Resources NL (the works approval holder) for the Atlas Project (the Premises), located at Munbinea Road, Nambung.

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 W6831/2023/1 has been granted.

The revised works approval issued as a result of this amendment supersedes the existing works approval previously granted in relation to the Premises.

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 Amendment summary

On 5 November 2024, the works approval holder submitted an application to the department to amend works approval W6831/2023/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- The removal of nighttime restrictions on mining activities (currently in place to manage noise emissions);
- The removal of noise verification conditions;
- Authorisation of mine voids as discharge points for the slimes tailings;
- Authorisation to construct additional solar drying ponds on the mine path; and
- The reduction of the freeboard of the solar drying ponds (SDPs) from 1 m to 0.5 m.

This amendment does not require a change to the assessed Category 8 (i.e. mineral sands mining and processing) throughput of the operation.

Time limited operations at the premises have commenced under existing works approval W6831/2023/1, with daytime mining activities commencing in the southern-most area of the pit. In this area, the mining has reached the base of the pit and mining activities are progressing northwards. Processing activities have also commenced under time-limited operations.

2.2.1 Removal of nighttime mining restrictions

Noise sensitive receptor classifications

The existing works approval identified four potential noise sensitive receptors within 4 km of the premises (refer to Figure 1). The works approval holder is seeking to remove some conditions relating to noise management and monitoring from the existing works approval, on the basis that the receptors are either sufficiently distanced from the mining operations to be compliant with assigned levels in the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations), or agreements have been entered into which mean that the properties are no longer defined as sensitive receptors for the purposes of the Noise Regulations.

Noise modelling conducted by Lloyd George Acoustics in 2022 (LGA 2022) provided as part of the application for the works approval, indicated that the northernmost property (3121 Munbinea Road) was of a sufficient distance from the mining activities for noise levels to be compliant with

the Noise Regulations at all times.

However, the modelling also indicated that controls would be required to meet the assigned levels of the Noise Regulations at the three nearer residential receptors. Therefore, the works approval holder proposed restrictions on heavy machinery use (i.e., mining activities) during nighttime operations, which were conditioned in the existing works approval. Noise monitoring conditions to verify compliance with assigned levels were also conditioned at the time.

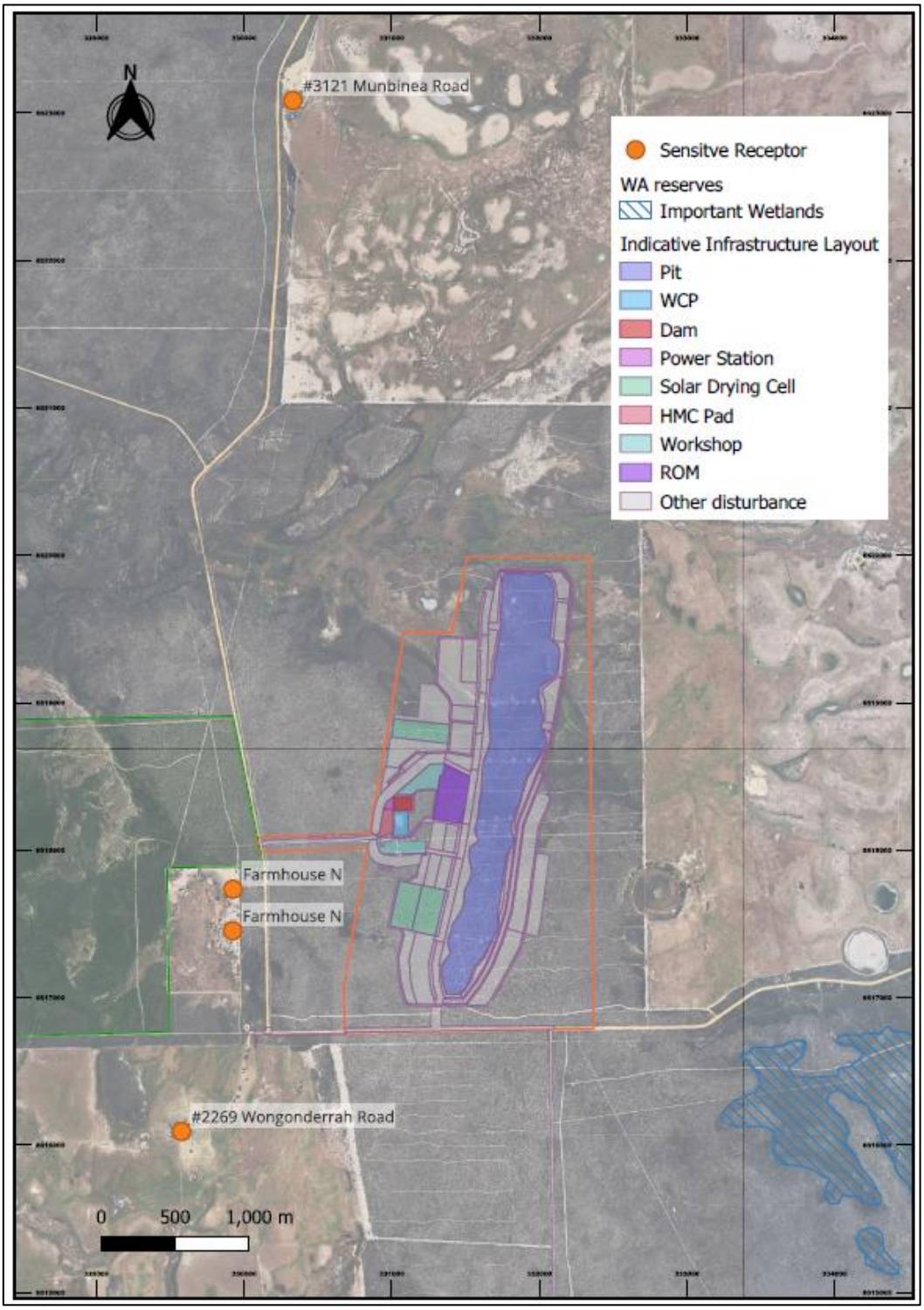

Figure 1: Noise sensitive receptors around the Atlas Project prescribed premises

Since the granting of works approval W6831/2023/1 in 2024, the works approval holder has

entered into a lease agreement with the property owners of 3700 and 3672 Munbinea Road (labelled Farmhouses N, above) until 1 October 2026, with the provision that the properties will remain unoccupied for the duration of the lease. As there will be no one residing at these properties, the department agrees that, under these conditions, these properties do not constitute a noise sensitive receptor for the duration of the lease.

This leaves only 2269 Wongonderrah Road as a noise sensitive premises that may potentially be impacted by noise levels from the operation. It is understood that the works approval holder has purchased the property at 2269 Wongonderrah Road and has leased it back to the former owners through an Occupancy Deed. The property includes a house as well as an active caravan park business. The Nambung Station Stay and Caravan Park, located on 2269 Wongonderrah Road, holds a current license issued under the *Caravan Parks and Camping Grounds Act 1995*. As such, both the caravan park and the residential dwelling at 2269 Wongonderrah Road continue to meet the definition of a noise sensitive premises for the purpose of the Noise Regulations, and the relevant assigned levels must be met at this location.

As part of this application to amend works approval W6831/2023/1, the works approval holder has also submitted an excerpt from the Occupancy Deed indicating that the proprietor of the caravan park acknowledges that there will be a mine operating 24 hours per day, 7 days per week, and acknowledges the potential for inconvenience and nuisance caused by the mining operation.

The department supports companies engaging with stakeholders that have the potential to be impacted by their operations, as the risk assessment framework may consider whether an application is likely to cause a high level of community concerns or complaints (DWER 2020b). However, with this application, given that the protection of human health from excess noise emissions is a key factor, only amenity agreements that result in a residence being unoccupied for the duration of the impactful activities will result in related premises being removed as a noise sensitive receptor in the risk assessment.

Noise modelling

The LGA (2022) noise modelling indicated that only the daytime assigned noise levels could be met at the Wongonderrah Road property when tonality penalties were included. The department's experience at similar mineral sands operations has consistently shown that there is a tonal component from both fixed and mobile activities at these types of operations, and therefore the assessment is required to assume tonality will be a factor. The works approval holder subsequently revised the noise modelling (LGA 2025) with specific details of the mobile fleet that is operating at the premises, which is quieter than the mobile fleet assumptions that were used in the initial noise modelling (LGA 2022).

The revised modelling divides the pit into three distinct zones that were modelled independently (refer to Figure 2). The revised modelling indicated that, at the Wongonderrah Road property, the nighttime assigned noise levels (35 dB) will comfortably be met when mining activities occur in the "north area" of the pit. Furthermore, it shows that the evening and Sunday assigned noise levels (40 dB) (but not the nighttime assigned levels) will be met at this property when mining activities in the "south" and "middle" areas of the pit.

The department agrees that it is appropriate to modify the conditions on the works approval to reflect the refined noise modelling results. This will allow for mining at any time of day in the north of the pit, and an expansion of mining hours in the evenings and on Sundays in the middle and southern areas of the pit.

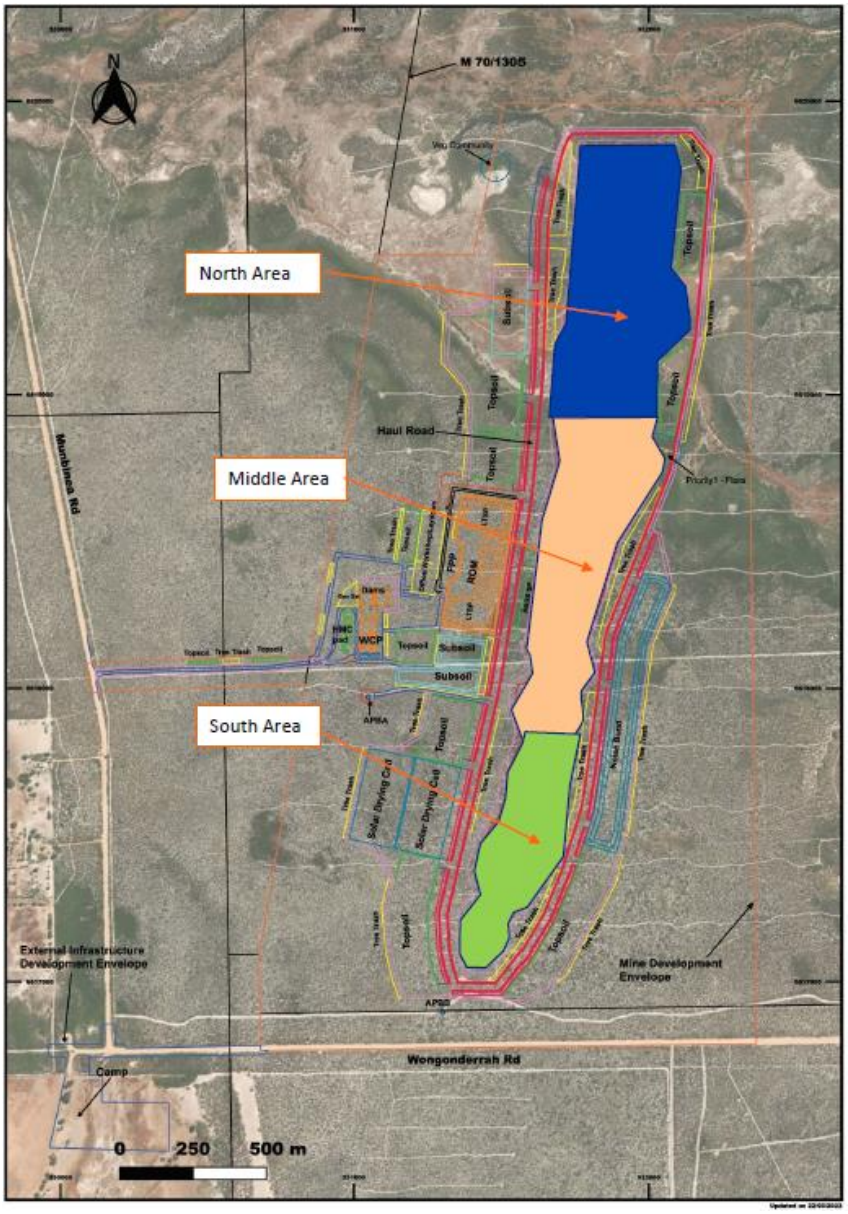

Figure 2: Depiction of mining areas used for noise modelling scenarios in LGA (2025)

Dust impacts

The department notes that the removal of nighttime mining restrictions, to allow for mining 24-hours per day, is likely to result in additional dust generation which has the potential to impact nearby receptors. In 2022, the works approval holder undertook a dust assessment for the proposed activities, which included modelling of total suspended particulate (TSP), PM_{10} and $PM_{2.5}$ dust emissions and their predicted impacts to the closest receptors (Ramboll 2022). The modelling considered daytime-only mining and 24-hour mining and identified mining activities, including topsoil and overburden stripping, hauling (i.e., wheel generated dust), and stockpiling of material as the highest risk activities for dust generation.

These activities were considered likely to exceed the *National Environment Protection (Ambient Air Quality) Measure (NEPM)* PM_{10} air quality standard of 50 µg/m^3 (24-hour average) at sensitive human receptors, if controls are not implemented at the premises. Dust generation is likely to be higher during the windy, dry, summer months (October to April) as rainfall during the winter months is likely to significantly inhibit dust liftoff.

The modelling assumed that the dust controls outlined in Table 3 are fully implemented at the

operation. These controls have already been conditioned in the existing works approval. The modelling compared emissions against standards set out in the department's draft *Guideline: Dust Emissions*.

The results for 24-hour mining at the premises indicate that, when added to estimated background levels, PM_{10} concentrations would only reach about 36% of the 24-hour guideline value and 48% of the annual guideline value at the nearest receptors (3121 Munbinea Road, 2269 Wongonderrah Road). The modelling suggested that $PM_{2.5}$ emissions are expected to reach 24% of the 24-hour guideline value and 53% of the annual guideline value at the same two sensitive receptors. This is comparable to the levels predicted at the nearest receptors (Farmhouse N, which is no longer a sensitive receptor; refer to section 2.2.1 above) in the original works approval.

The works approval holder has also proposed to monitor dust emissions during operations to ensure that dust controls are effective. The dust monitoring program will utilise real-time air quality monitors for PM_{10} and $PM_{2.5}$ emissions, linked to alerts for operating staff when elevated levels are recorded. Although these monitors do not meet the relevant Australian Standards (AS), they will be calibrated against a second dust monitor on site that can comply with *AS 3580.9.6: Methods for sampling and analysis of ambient air – Determination of suspended particulate matter PM_{10} high volume sampler with size selective inlet – Gravimetric method*. The works approval holder will also conduct an analysis of the composition of the dust to confirm that heavy metals in the dust are below hazardous levels.

Results from the monitoring conducted during time-limited operations will need to be submitted with the subsequent licence application, when on-going dust controls and monitoring will be reviewed. This information will be used to understand the effectiveness of the dust controls that have been implemented at the project and will be used to inform licence conditions.

2.2.2 Solar drying ponds

The works approval holder is also seeking to amend the works approval conditions relating to the construction and operation of the solar drying ponds (SDPs) to allow for:

- The discharge of slimes into the mining voids for co-disposal with the sand tailings or in dedicated in-pit settlement cells;
- The construction of SDPs on the mine path ahead of the mining activities; and
- A reduction in the minimum freeboard of the solar drying ponds from 1 metre (m) to 0.5 m.

By optimising clay slimes management in this manner, the works approval holder is expecting to be able to reduce the disturbance footprint of SDPs off the mining path and anticipates beneficial outcomes for both the groundwater table recovery and the rehabilitation strategy. The works approval holder intends to monitor and manage the additional SDPs in accordance with the existing works approval conditions.

Clay slimes disposal to mine voids

Existing works approval W6831/2023/1 authorises the disposal of sand tailings into mine voids (via cyclone stakers), while slime tailings were disposed in solar drying ponds. The proposed co-disposal of the clay slimes tailings with the sand tailings to the mine voids is unlikely to significantly increase the seepage risks from the mine voids compared with the disposal of sand tailings alone.

Acidic or metalliferous drainage risks from the disposal of the slimes tailings directly to the mine voids is considered unlikely to increase the risk of groundwater quality deterioration, given existing requirements for the management of potential acid sulfate soils (PASS) included in the existing works approval. Furthermore, groundwater quality downstream of the mining area will be monitored during time-limited operations to detect any potential impacts under existing

conditions.

SDP construction

Where SDPs will be constructed at or near the natural ground level, whether on the mine path or off mine path, the works approval holder has stated that the embankments will be constructed consistent with the design criteria set out in the *SDP Detailed Design Guidance* (REC 2023).

Where the SDPs are to be constructed in the mine voids, they will be constructed at a level above the natural water table but as low in the pit as practical. With the mine voids having an average depth of over 6 m, embankment construction will not be required, with pit walls providing the containment. At these depths, the voids will provide ample containment for the clay slimes and any rainfall, even during high rainfall events. The active pit, which will be downstream, at a greater depth than the SDPs, will provide a second level of containment for any runoff, spills or potential overtopping, further reducing the risk of environmental impacts associated with a loss of containment.

Freeboard

The works approval holder had initially committed to maintaining a 1 m freeboard across all of the SDPs at the operation. The department acknowledges that this strategy is more stringent than standards set out by the Department of Mines, Industry Regulation and Safety (DEMIRS) minimum freeboard requirements. To optimise the SDP construction requirements, the works approval holder is now proposing to operate the SDPs with a minimum total 0.5 m freeboard. The department notes that DEMIRS requires structures such as the SDPs (i.e., with the decant pond located against the embankment and with no upstream catchment) to operate with a minimum total freeboard of 0.5 m "*plus an allowance for an inflow corresponding to the 1-in-100-year 72-hour Average Recurrence Interval (ARI) rainfall event falling in the catchment of the pond, assuming that no decant recovery takes place for the duration of the rainfall event*" (DMP 2015).

The department also notes that the works approval conditions currently allow for the active recovery of decant water from the SDPs to the process water ponds, should the SDPs be at risk of overtopping. While the reduction in freeboard increases overtopping risks from the SDPs, the department views the risk as manageable, given the works approval allows for alternative management pathways. Effectively, instead of reducing the risk of overtopping by maintaining an excess freeboard, this risk will instead be managed through active freeboard management. It will fall to the works approval holder to ensure that the SDPs are managed appropriately to prevent unauthorised discharges.

2.3 Part IV of the EP Act

The Atlas Project was referred to the Environmental Protection Authority (EPA) on 3 September 2021. The EPA decided to assess the proposal at the level of a Public Environmental Review with a six-week public review period under Part IV of the EP Act.

Report number 1759 was issued in March 2024 relating to the proposal, which identified flora and vegetation, terrestrial fauna and inland waters as key environmental factors for the project. Impacts to fauna and vegetation, such as clearing, rehabilitation and the management of groundwater drawdown to minimise potential impacts to the nearby groundwater dependent vegetation are managed under Ministerial Statement (MS) 1220 and are not considered in this assessment.

The works approval assessed under Part V of the EP Act regulates construction and operations at the premises to ensure that there are no adverse impacts from the disturbance of acid sulfate soils, tailings disposal, noise generation and dust generation.

There is some regulatory overlap between Part IV and Part V of the EP Act with regards to dewatering, discharges to groundwater and groundwater monitoring for this project. The

Delegated Officer has taken into consideration the objectives of the Groundwater Operating Strategy and Drawdown Management Plan, which are implemented under MS 1220, and will only regulate matters that are not already regulated under MS 1220.

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 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 existing control measures on the current works approval, in addition to further controls that the works approval holder has proposed to assist in controlling these emissions.

Table 1: Works Approval Holder controls

Emission	Sources	Potential pathways	Proposed controls and existing conditions on the works approval
Construction			
Dust	Earthworks, clearing, construction and installation of evaporation ponds and pipelines.	Air / windborne pathway	Existing conditions: Watercart to be used for dust suppression during construction. Compaction, grading and wetting down of the construction areas during construction works. Minimise earthworks during high wind (dusty) conditions.
Noise	Earthworks, clearing, construction and installation of evaporation ponds and pipelines.	Air / windborne pathway	Existing conditions: Restriction of topsoil and overburden stripping to daytime only. Requirement for broadband reversing alarms.
Sediment laden stormwater	Clearing and earthworks for the evaporation ponds and pipelines.	Stormwater runoff to surface water and vegetation	Existing/proposed conditions: Compaction, grading and wetting down of the construction areas during construction works. Requirement to construct a bund around the northern mining area prior to the construction of SDPs in this area.

Emission	Sources	Potential pathways	Proposed controls and existing conditions on the works approval
Operation			
Noise	Operation of mobile machinery for mining 24-hours per day	Air / windborne pathway	Existing conditions: Broadband start-up alarms and reversing alarms to be utilised. Pump placement to attenuate noise. Pumps to be enclosed if required. Generator sets to be enclosed to attenuate noise. Speed limit of 25km/hr for HMC trucks on site. Monitoring at the nearest receiver to verify that noise limits are met.
Dust	Erosion of cleared areas and stockpiles during high winds Mining and earthworks Wheel generated dust	Air / windborne pathway	Existing conditions: Watercart, covers, chemical stabilisers and sprinklers to be used for dust suppression. Compaction, grading and wetting down of the operational areas. Minimise earthworks during high wind (dusty) conditions. Speed limits of 50km/hr for haul trucks on site. Suspension of dust generating activities during High Wind conditions when there is a risk of dust impacting sensitive receptors. Regular inspections to ensure dust controls are effectively being implemented.
Process water (including slimes waste stream)	Overtopping of solar drying ponds Pipeline spills	Spill to soils and vegetation	Existing/proposed conditions: Pipelines to be constructed in bunding or with leak detection systems. Daily inspections of pipelines, solar drying ponds and process water ponds. Surface solar drying ponds to be operated with a 0.5 m freeboard.
Seepage	Seepage from solar evaporation ponds, relocated to the mine voids.	Seepage to groundwater	Existing conditions: Groundwater monitoring to detect potential impacts. Relocating solar evaporation ponds unlikely to alter seepage risks.
Acidification of groundwater or soils	Disposal of clay slimes stream to the mining voids or to on-path SDPs	Acidification of soils and groundwater	Existing conditions: On-going sampling and analysis of overburden and ore for PASS. Selective handling of PASS materials. Monthly testing of process water and

Emission	Sources	Potential pathways	Proposed controls and existing conditions on the works approval
			neutralisation if pH <4. Routine testing of tailings and slimes for PASS Neutralisation of tailings, if required. Relocating solar evaporation ponds unlikely to alter acidification risks.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020b), the Delegated Officer has excluded employees, visitors and contractors of the works approval holder 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 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 2020a)).

Table 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
3700 Munbinea Road (Farmhouse N)	300 m southwest of haul road 860 m west of premises boundary (Screened out as a receptor now that the premises will not be occupied for the duration of a two-year lease)
3672 Munbinea Road (Farmhouse N)	500 m southwest of haul road 850 m west of premises boundary (Screened out as a receptor now that the premises will not be occupied for the duration of a two-year lease)
2269 Wongonderrah Road Nambung Station Stay and Caravan Park	1.3 km southwest of prescribed premises boundary 1.7 km southwest of mining area
3121 Munbinea Road	3.3 km northwest of premises boundary and mining area
Environmental receptors	**Distance from prescribed activity**
Nambung National Park	850 m west of the prescribed premises boundary. Visitor centre is about 10 km southwest of the prescribed premises boundary.
Threatened Ecological Community – *Banksia Woodlands of the Swan Coastal Plain* (endangered) (groundwater dependent)	Premises is entirely within this vegetation community.
Threatened Ecological Community – *Claypans of the*	Within the prescribed premises boundary.

Swan Coastal Plain (critically endangered)	
Species of cultural interest – Moodjar (*Nuytsia floribunda*)	Within the prescribed premises boundary.
17 priority flora species	Within the prescribed premises boundary.
Carnaby's Cockatoo (endangered)	High value foraging habitat within the prescribed premises boundary.
Mount Jetty creek line, which feeds the Nambung River.	About 200 m north of the mining area. Prescribed premises is within the creek catchment area, which flows into conservation significant karst habitat in the Nambung National Park.
Environmentally significant wetlands	1 km east-southeast of premises boundary.
Groundwater: brackish at 2 to 8 m below ground level.	Site is within the prescribed Jurien Groundwater Area.
Areas of Aboriginal cultural significance, including Moodjar trees and Bibby and Jetty Creeks. (Note that there are no registered Aboriginal Cultural Heritage Sites in the area)	Moodjar trees within the prescribed premises boundary but excluded from the disturbance footprint of MS 1220. Mount Jetty Creek 200 m north of the mining area. Bibby Creek 2 kms north of the mining area.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020b) 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 W6831/2023/1 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 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. category 8 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 surface solar drying ponds within the mine path	Dust	Air/windborne pathway causing impacts to health and amenity	Residences 3.3 km north and 1.3 km southwest of the premises	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 2, 3, and 4.	General dust management conditions are existing on the works approval.
	Noise			Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 5	General noise conditions are existing on the works approval.
	Sediment laden stormwater	Contaminated run-off	Mt Jetty Creek 200 m north of the premises Surrounding soil and priority vegetation	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1	Existing condition for an earthen bund around mining area also applied to SDP construction, should construction occur in the flood prone area of the mine path.
	Acidic seepage or drainage	Disturbance and use of PASS materials causing contamination	Surrounding soils Groundwater	Refer to Section 3.1	C = Major L = Unlikely **Medium Risk**	Y	Condition 1	Existing condition requiring the screening of material used in embankment construction for PASS reduces the likelihood of this event.
Operation (including time-limited-operations operations)								
Discharge of clay slimes into mined out voids	Seepage	Seepage from mine voids causing groundwater mounding	Priority vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	N/A	NA	This risk does not change with co-disposal of clay slimes with the tailings. Groundwater levels are managed and monitored under the Ministerial Statement 1220.
	Acid or metalliferous	Deterioration of groundwater quality due to	Surrounding soil and priority	Refer to Section 3.1	C = Major L = Unlikely	Y	Condition 16, 17, and 20.	The existing conditions and monitoring on the works approval are considered sufficient

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**				
	drainage	acidic or metalliferous seepage	vegetation Groundwater		**Medium Risk**			to manage risk.
Operation of surface solar drying ponds on the mine path	Process water	Spills Overtopping of ponds	Surrounding soil and priority vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 10 and 11	Freeboard requirement and inspections provide sufficient protection. The existing controls on the works approval are considered sufficient to manage risk.
	Seepage	Seepage from ponds causing groundwater mounding	Priority vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	Seepage from this structure is likely to assist with water infiltration objectives under the Ministerial Statement 1220. No regulatory controls required
	Acid drainage	Deterioration of groundwater quality due to acidic seepage	Surrounding soil and priority vegetation Groundwater	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 20	The existing conditions on the works approval are considered sufficient to manage risk.
Reduction of minimum freeboard for solar drying ponds from 1 m to 0.5 m	Process water	Spills Overtopping of ponds	Surrounding soil and priority vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 10 and 11	The reduction of the minimum freeboard to 0.5 m maintains a sufficient level of protection when coupled with inspections. The works approval holder is able to use other management strategies to ensure that the facilities do not overtop.
Additional 12 hours nightshift mining, including overburden and ore removal and handling, vehicle movements.	Noise	Air / windborne pathway causing impacts to amenity	Residence 1.3 km southwest of the premises	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	**Modified conditions 13 and 14** Condition 5 and 15.	Noise modelling shows the operation will comply with nighttime assigned levels under the EP Noise Regulations when mining in the north area of the pit. However, nighttime assigned levels remain unlikely to be met when operating in the southern regions of the pit, but Daytime, Sunday and Evening assigned levels will be met. Conditions 13 and 14 have been modified to allow mining operations during Sunday and Evening times when mining in the southern area and at any time when mining in the

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**				
								northern area. Given that modelling demonstrates compliance will be achieved, including penalties for tonality, noise verification conditions can be removed from the works approval.
	Dust	Air / windborne pathway causing impacts to health and amenity	Residences 3.3 km north and 1.3 km southwest of the premises	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 15 and 21	Dust controls and monitoring conditions included on the works approval are considered sufficient to manage additional dust from extended mining operations.
	Sediment laden stormwater	Contaminated run-off	Mt Jetty Creek 200 m north of the premises Surrounding soil and priority vegetation	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Condition 1	This risk does not change with additional mining and existing controls on the works approval are considered sufficient.
	Acid drainage	Deterioration of soil quality and/or groundwater quality due to oxidation of PASS from dewatering and earthworks	Surrounding soil and priority vegetation Groundwater	Refer to Section 3.1	C = Major L = Rare **Medium Risk**	Y	Condition 1, 16 and 17	This risk does not change with additional mining and existing controls on the works approval are considered sufficient.

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

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
Adjacent landowner advised of proposal on 3 December 2024	None received.	N/A
Works Approval Holder was provided with draft amendment on 21 March 2025	None received. On 21 March 2025, works approval holder waived the remainder of the consultation period.	N/A

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
1, Table 1, item 4	Clarification of surface solar drying pond requirements and authorisation of SDP construction on the mine path.
1, Table 1, item 10	Clarification that mining bund is required to be constructed prior to SDP construction on the mine path north of the initial disturbance boundary.
10	Change to SDP minimum freeboard to 0.5 m
11	Change to SDP minimum freeboard to 0.5 m
12	Authorisation of slimes tailings disposal to the mine voids
13	Change to allow mining activities during daytime, Sundays, public holidays and evenings when operating in the southern areas of the pit, and to allow mining at anytime in the northern area of the pit.
14	Change to the hours when only processing activities may occur.
19	Added reporting requirement for discharge of slime tailings to mine voids
22-25 (existing)	Removed noise verification monitoring requirements (refer to section 3.2).

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: Environmental Siting*, Perth, Western Australia.
3. DWER 2020b, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Department of Mines and Petroleum (DMP) 2015, *Guide to the preparation of a design report for tailings storage facilities (TSFs).*
5. REC 2023, *SDP Detailed Design Guidance*, prepared for Image Resources NL.
6. Lloyd George Acoustics (LGA) 2022, *Environmental Noise Assessment*, prepared for Image Resources NL.
7. Lloyd George Acoustics (LGA) 2025, *Environmental Noise Assessment*, prepared for Image Resources NL.
8. Ramboll 2022, *Atlas Project – Air Quality Assessment*, prepared for Image Resources NL.