

P-EA-101073343

(ML 100482)

Additional information to support application for  
environmental authority

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- ML100482 Regional Ecosystems Report
- ML100482 MSES Report

## Background

This was the first application to be made in the Copperfield State Forest and was carefully considered to minimise the impact on the Landholder and the State Forest. The application is located in the north eastern corner of the State Forest and was made over an area of 56.45 hectares.

## Request for additional information

In correspondence dated 22 April 2026, additional information to support the application for the application for an environmental authority.

This document provides a response to the information requested.

## Action Items

Provide a detailed description of the environmental values, the risks and magnitude of the environmental values, management practices and waste management

- 1. In accordance with section 125(1)(i)(A) of the EP Act, include a description of the environmental values that may be affected by the proposed activity. This must identify any MSES and ESAs, in proximity and within the ML boundary. This information is necessary for the department to assess the potential impacts on these environmental values and to evaluate the application against the environmental objectives under section 35 of the Environmental Protection Regulation 2019 (EP Reg).*
- 2. In accordance with section 125(1)(i)(C) of the EP Act, provide a description of the risks and the likely magnitude of impacts on the identified environmental values. This should include an analysis of how the proposed activity may affect the MSES and ESAs in proximity to and within the ML.*
- 3. As required under section 125(1)(l)(ii) of the EP Act, include information regarding the types of waste that will be produced by the proposed activity and how waste minimisation will be achieved. This should include strategies for managing and disposing of waste in an environmentally responsible manner.*

The application for ML 100482 is located within the Copperfield State Forest, a category C Environmentally Sensitive Area.

Care was taken in selecting the area of application to avoid identified Matters of State Environmental Significance (MSES). Riparian corridors subject to the layer **vegetation intersecting a watercourse** are not generally consented to for surface disturbing activities by Queensland Parks and Wildlife (QPWS) as the owner of **Reserve Land**.

We note that the application boundary is located within the preferred 1km buffer from category B environmentally sensitive areas (ESA), however this was done with consideration to the nature of the identified vegetation and the terrain. This application seeks to reduce the buffer to 15 metres.

Vegetation mapping in Queensland is largely done by desktop rather than on-ground surveys. Therefore, the information provided in government generated mapping and reports provides an indication of the environmental values, rather than a precise survey of the situation on the land itself.

The area surrounding the mining lease is generally flat without steep, sloping ground.

The method of operations for this permit consists largely of a “dig and detect” style operation. The proposed depth of the pits on the mining lease may be between 40cm to 8 metres depending on the depth of the loose soil. Dry blower operations may occur in some locations to enhance gold recovery.

It is worth noting that QPWS will not consent to wet processing operations within State Forest areas in Queensland. This prevents the risk of water runoff and reduces the risk of erosion around mined areas.

## Wetlands and Waterways

Areas which **may** contain wetlands or waterways are located outside of the permit application.

No wet processing operations are proposed to occur within the area of this mining lease.

The depth of the excavations is unlikely to have an impact on Groundwater, particularly given that operations are proposed to occur in the dry months of the year (April to November).

## Land Use

It is recognised that the area of this property is both a working cattle property and a State Forest. The environmental authority conditions provide that no more than 10 hectares of land may be disturbed at any time with the Eligibility criteria and standard conditions for mining lease activities. The Environmental Works Program, which is yet to be prepared for QPWS consideration will quite often provide for a much smaller footprint of disturbance. This provides little ongoing impact to the ability for cattle to graze and wildlife to continue to exist in the area of the mining lease.

This is demonstrated with existing operations in nearby Brigalow State Forest where wildlife co-exist with mining operations on a daily basis.

The open pit footprint is expected to remain relatively small with proposed 20 metre long pits being excavated at a time. The width of the pit will vary, possibly to 6 metres wide and the depth of the pit will depend on the payload. Each area will be backfilled post mining prior to moving onto the next area. This allows for rehabilitation to commence on excavated areas while mining continues in new areas.

Rehabilitation will be progressive and ongoing. Rehabilitation will consist of backfilling, replacing topsoil and original timber, taking into account erosion control and reseeding with natives that exist in the area if necessary. Rehabilitation will be in accordance with the requirements of the DETSI eligibility criteria and standard conditions for a mining lease. All ground will be in a rehabilitated state at the time of mine closure.



Figure 1. Emu's on a granted mining lease in Brigalow State Forest.



Figure 2. A Kookaburra having caught a snake on a granted mining lease in Brigalow State Forest.

## Acoustic

The seasonal operation is likely to add to the localised noise in a minor way and generally by use of the excavator and dry blower.

The nature of the operation is relatively remote with the requirement to remain a minimum distance of 200 metres from restricted area such as houses, schools and other infrastructure. The nearest dwelling to this permit is over 450 metres to the north.

Information located whilst searching online provides that noise generated by an excavator is typically between 80 – 110 decibels (dB).

A comparison of similar dB readings is provided below (source: <https://second-handexcavator.com/excavator-noise-levels/>) .

- **80 dB:** This is roughly how loud a loud vacuum cleaner or heavy traffic is.
- **90 dB:** This is comparable to a blender or the noise level from a lawn mower.
- **100 dB:** This is comparable to the sound of a chainsaw or a jackhammer.
- **110 dB:** At this intensity, the noise is like the roar of a rock concert or a thunderclap.

An online **Decibel Distance Calculator** (<https://ctrlcalculator.com/physics/decibel-distance-calculator/>) indicates that sound travelling from the mining lease to the nearest dwelling may

reach around 66.94 dB. This does not factor in the buffer of the protected vegetation which is likely to reduce the sound to a negligible level.

### Decibel Distance Calculator

Initial Distance (meters):

Initial Decibel Level (dB):

10

100

Final Distance (meters):

450

Calculate

Reset Values

At 450 meters, the sound level will be approximately 66.94 dB.

Table 1. Decibel Distance Calculator

In terms of noise produced by the mining operations, figures for typical surface operations were provided in Queensland Government publication QGN 22 Guidance Note for Management of Noise in Mines (2014).

### Surface mining

| Operation/task                                                                                                                             | Sound level<br>dB(A) | Maximum<br>unprotected<br>exposure time |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------|
| Coal preparation plant <ul style="list-style-type: none"> <li>beside crusher mill</li> <li>beside operator of vibrating screens</li> </ul> | 102<br>98            | 10 mins<br>24 mins                      |
| Processing plant equipment <ul style="list-style-type: none"> <li>vacuum pumps</li> <li>chutes and hoppers</li> </ul>                      | 96–100<br>100–108    | 15 – 38 mins<br>2–15 mins               |
| Earthmoving equipment <ul style="list-style-type: none"> <li>front end loader</li> <li>dragline engine room</li> </ul>                     | 104–108<br>92–101    | 2–6 mins<br>12–100 mins                 |
| Surface mining equipment                                                                                                                   |                      |                                         |
| Electric shovels                                                                                                                           | 75–90                | 0–2.5 hrs                               |
| Haul trucks                                                                                                                                | 84–109               | 9 hrs–11 secs                           |
| Grader                                                                                                                                     | 85–100               | 8 hrs–15 mins                           |

Adapted from Coal Services, 2013, Managing noise in the coal industry to protect hearing, NSW Government.

Table 2. Example of noise exposure levels in mining operations.

The mining lease is located adjoining to McDonald's Flat Road which sees both general road users and station access on a daily basis. The American Academy of Audiology describes traffic noise as 70dB. Diesel Trucks (Cattle carrying) can reach 80dB.

The applicant proposes that machinery operation only takes place between 8am and 5pm, Monday to Saturday. The nature of the operation provides that machinery is not consistently in use all day, every day. There will be times when activities which create less noise will be carried out.

## Air Quality

It is a given that there will be some localised dust generation with earthworks and processing operations. As this is not a hard rock operation disturbance is low risk for newly fractured particles considered with respirable dust.

With the tree coverage surrounding the lease as well as remaining within the lease boundaries, dust is not expected to travel far. Less distance than dust generated by the unsealed gazetted road and station roads in the locality.

Due to QPWS not allowing wet processing, dust suppression mechanisms such as water trucks are impractical.

## Waste Management

There is little waste generated in this type of mining operation.

All chemicals on site will be secured in appropriately in bunded storage areas to reduce risk of contamination. All waste, be it general waste, or chemical containers, greases etc, will be regularly removed to the nearest Council waste transfer facility.

Any on site spills will be cleaned up upon discovery. Any contaminated soils will be removed from site. Machinery is routinely maintained and risk of spills is low.

This site and the nature of operations do not have any acid producing activities.

## Public Interest Considerations

*Provide an assessment of the proposal against the standard criteria outlined in section 176 and Schedule 4 of the EP Act. This must include an explanation of how the proposed activity aligns with public interest considerations, given the ML's location within the Copperfield State Forest, a Category C ESA.*

Application was made to vary the standard conditions to allow for activities to occur within 15 metres of a category B environmentally sensitive area. Activities are also proposed to be carried out within Copperfield State Forest. Applicants for mining leases within State Forest Land, managed by QPWS are subject to additional conditions of consent by the State. These are negotiated prior to grant of a permit and consent for the **reserve land**. The mining lease area is effectively sterilised from public use for the term of grant. Consideration was made

with respect to the location, size and shape of the application to minimise the impact of this specific permit application to the Landholder and the State Forest area. This operator intends to operate the mining lease in a way that provides minimum impact to the land, by way of small open disturbance areas and ongoing progressive rehabilitation. The way in which the permit is mined provides that a return the State of Queensland by way of **Mineral Royalties** is likely.

The Timber rights in this area belong to the State of Queensland. Pre-clearing consultation is required to be undertaken prior to operations commencing to ensure that timbers of value can be harvested by authorised persons.

This application does not affect any nearby General Permission Areas that allow for Public Fossicking opportunities.

## Rehabilitation Measures

*In accordance with section 125(1)(i)(E) of the EP Act, provide a description of how the land subject to the application will be rehabilitated. This information must demonstrate compliance with the performance objectives outlined in section 36 of the EP Reg.*

Rehabilitation, as previously provided for is progressive with the pits being backfilled before mining operations move to a new area of the lease. The excavation area is backfilled and revegetation encouraged. With the State Forest being a protected area, it is impractical to bring in seeds from outside the area, so revegetation is encouraged with seeds and grasses local to the mining lease.

This operator holds a permit in Brigalow State Forest and is demonstrating his commitment to sound environmental practices with regard to progressive rehabilitation.

Additional measures are in place with regard to quality of rehabilitation with permits in State Forest having consent conditions that allow Park Rangers to check in from time to time to check on the adherence to the Environmental Works Program Conditions and sound rehabilitation practices.



Figure 3. Post mining excavation site on ML 100400 following 1 wet season. Timber regrowth is being encouraged in this area. Grass has already been established.



Figure 4. Saplings are establishing in areas worked by the Miner in late 2025.

## Conclusion

The variation of standard conditions does not provide additional environmental risks and does not compromise the environmental values of the area.

The Applicant already operates within State Forest Land and is experienced with the requirement for additional consultation with regard to environmental authority conditions.

The information provided in this document and attachments further supports information previously provided with the application lodgement.

The applicant is committed to meeting the conditions of the permit upon grant of tenure.