

# Environmental Assessment

## Huntly Bauxite Mine & Pinjarra Alumina Refinery

Interim Update: **June 2023**



### Overview

#### Who we are

Alcoa Australia has been operating as an integrated bauxite miner and alumina producer in the south-west of Western Australia since 1963. Our bauxite mines (Huntly, Willowdale) and alumina refineries (Kwinana, Pinjarra, Wagerup) add considerable value to the nation, state, and local economies.

Our end product, aluminium, is important in the transition towards a decarbonised future and is essential to modern lives (smart phones electric vehicles, new energy generation and storage).

We value our place in the communities where we operate and where we directly employ around 4,000 people.

#### The Project

We proactively referred the project to State and Commonwealth regulators in mid-2020 for environmental assessment. Securing these approvals will help sustain operations at our Huntly mine and Pinjarra and Kwinana refineries for approximately 10 years.

#### \*The Project consists of:

##### Huntly mine

Transition the Huntly Mine to the proposed Myara North and Holyoake mine regions within ML1SA (inclusive of bauxite for the Pinjarra Alumina Refinery and the Kwinana Alumina Refinery); and

##### Pinjarra refinery

Increase production at the Pinjarra Alumina Refinery by 5 per cent from 5.0 Million tonnes per annum (Mtpa) to 5.25 Mtpa including development of water storage ponds and associated borrow pits.

\*Amendment to the Proposal: We recently submitted an amendment to the regulators to:

- remove the bauxite export component from the assessment
- reduce the total clearing in Myara North by 950ha
- reduce the total infrastructure corridor in Myara North by 3,599ha
- relocate a 519ha portion of the infrastructure corridor in Holyoake

### Fast facts **Proposed clearing ~8,300 hectares\***

#### Provides

~10 years supply of bauxite to Pinjarra and Kwinana refineries

#### Creates

~300 construction jobs

#### Sustains

~3,000 jobs across Huntly mine, and Pinjarra and Kwinana refineries

# Assessment process

The project will be assessed by the State and Commonwealth regulators in accordance with:

- Environmental Protection Authority (EPA) (State) Environmental Protection Act 1986; and
- Department of Climate Change, Energy, the Environment and Water (Commonwealth) Environment Protection and Biodiversity Conservation Act 1999.

The assessment has been set at the highest level being **Public Environmental Review** and the Commonwealth assessment will run in parallel with the State under one process to be led by the EPA.

Our Environmental Review Document (ERD) will be open to a 10-week public comment period as part of the assessment process.

# Environmental studies

To inform our ERD and understand potential impacts of the project, we have undertaken extensive studies into the seven environmental factors outlined below.



## Terrestrial Fauna

Fauna studies for new mine areas including for threatened species such as black cockatoos and chuditch.



## Terrestrial Environment Quality

Terrestrial quality studies for new mine areas to protect the environmental values of the soil.



## Surface and Groundwater

Hydrological and water quality assessment in new mine areas and assessment of future water requirements for the refinery.



## Social Surrounds

Noise management, Aboriginal and European cultural heritage surveys, recreational tracks and trails.



## Flora and Vegetation

Vegetation surveys for new mine areas including conservation-significant flora.



## Air Quality

Emissions to the atmosphere including dust and an updated refinery health risk assessment.

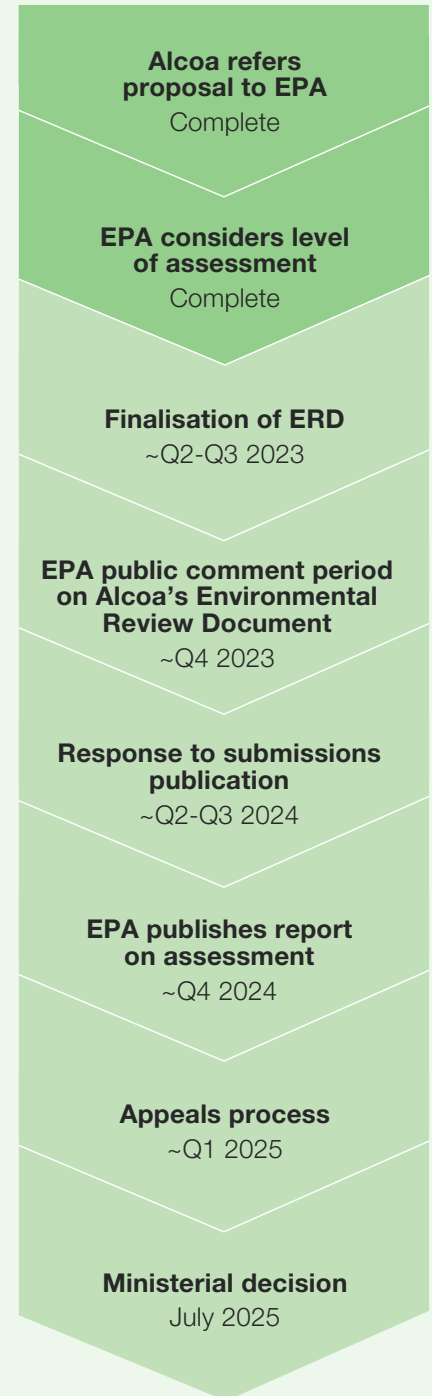


## Greenhouse Gas Emissions

Potential impacts from mining and refinery production.

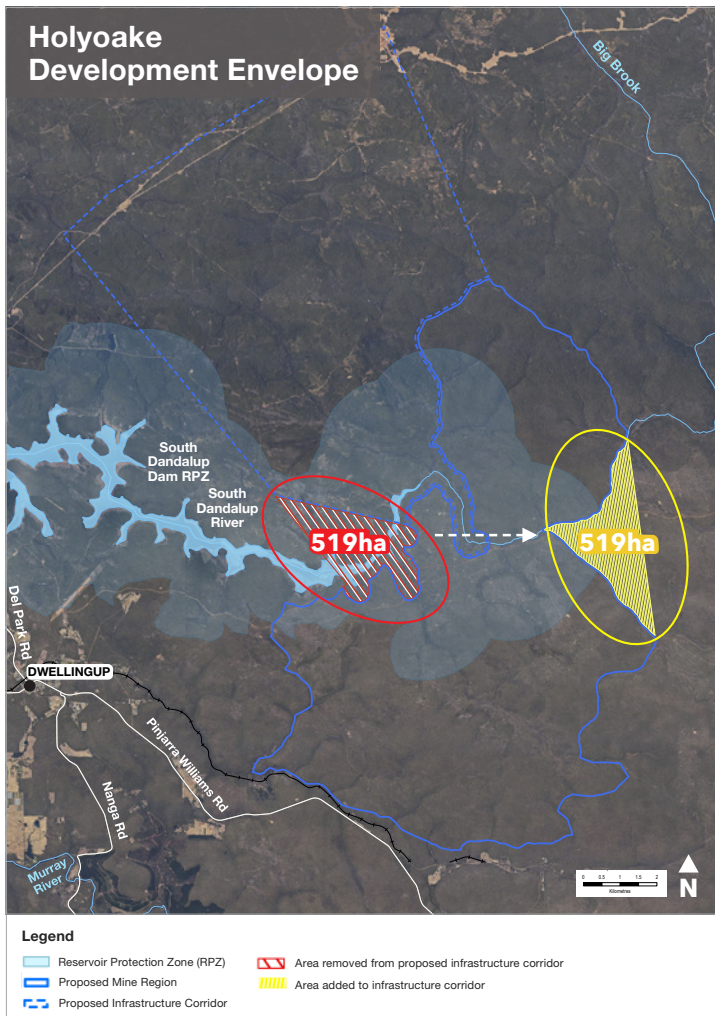
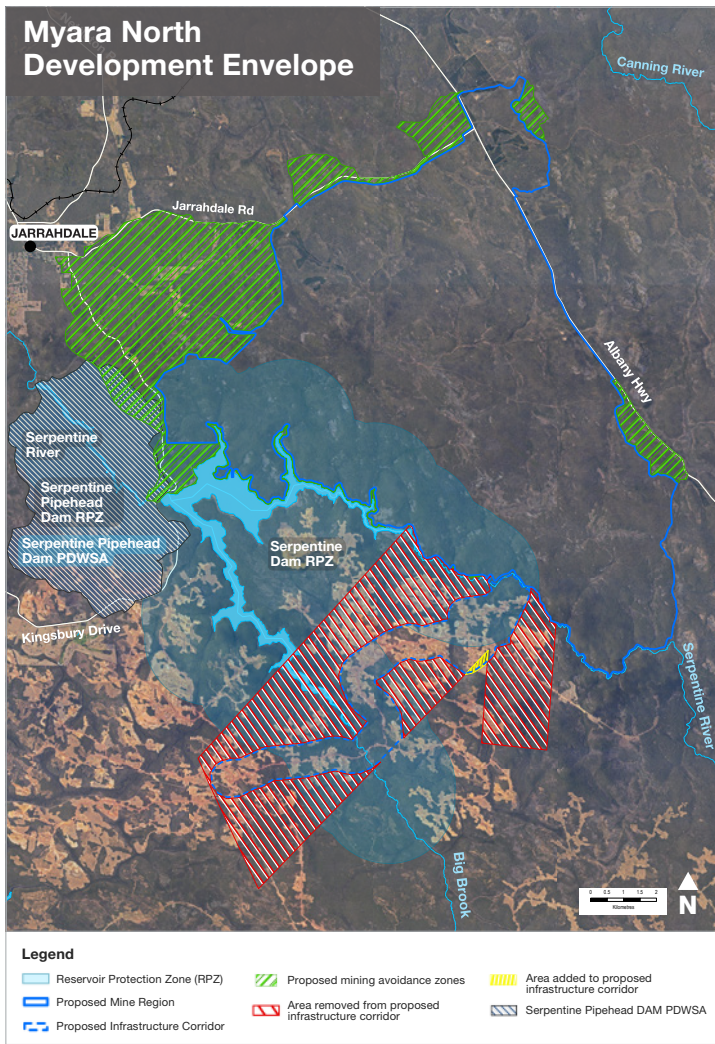
# Assessment timeline

Following is the current indicative timeline for the assessment.

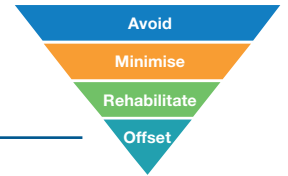


*Subject to change*





# Mitigation Hierarchy



## Minimising environmental impacts

The ERD will detail the work we have done to analyse potential impacts from our Proposal and how we propose to minimise them using the Mitigation Hierarchy.

Using this framework we will describe how we will avoid, minimise, rehabilitate, and then offset significant residual impacts of our project – in that order of priority.

### Avoid

We recently submitted an amendment to the regulators to:

- Reduce the Myara North Mine Development Envelope
- Create Mining Avoidance Zones in Myara North
- Relocate a portion of the infrastructure corridor in the Holyoake Development Envelope
- Remove bauxite exports

Subject to approval, the amendment will:

- Reduce the total amount of clearing in Myara North by **950 hectares**
- **Permanently exclude** this area from our resource plan
- Increase the distance between Jarrahdale townsite and our mining operations from **1.4 kilometres to 5.3 kilometres**
- Reduce the total infrastructure corridor in Myara North by **3,599 hectares**
- Avoid a **519 hectare** section of the South Dandalup River
- Move mining infrastructure **further away** from the **Dwellingup townsite and reservoir**
- Reduce potential social and environmental impacts across Myara North and Holyoake mine areas
- See **100 per cent** of the bauxite mined, refined in WA refineries

### Minimise

Management plans that address all phases of our operations are being developed to mitigate potential impacts and will be shared during the public comment period.

These will cover the following areas:

- Recreational Trails and Facilities
- Noise
- Flora and Vegetation
- Inland Waters
- Terrestrial Fauna
- Air Quality
- Greenhouse Gas Emissions

# Rehabilitate

## A proven track record

Alcoa has a proven track record in establishing and restoring a diverse, healthy and resilient eco-system in the Northern Jarrah Forest.

## Informed by more than 50 years of research, our rehabilitation is:

**Progressive** rehabilitation carried out every year

**Sustainable** rehabilitation which shows ongoing growth and ecosystem development and resilience to fire

**Adaptive** practices and standards which are responding to the pressure of a drier climate

more than **50 yrs**  
research and knowledge  
of the Jarrah Forest

**90%**  
average botanical species  
return over the past 20 years

since **1988**  
only native species, including Jarrah  
and Marri trees have been returned

in 2022 **570,000** native Jarrah Forest  
seedlings planted

**2.1** tonnes of seed spread

# Offset

Any significant impacts that remain will be addressed through the development of our offset strategy – helping to safeguard the forest for future generations.

Shaped by six guiding principles the strategy will deliver meaningful measures which support the conservation priorities for the Northern Jarrah Forest.



### Increase conservation areas

Protect and enhance diverse habitats for threatened fauna and flora species.



### Be scalable

Deliver on a framework that takes into consideration the implementation of future offset requirements and/or other regional-scale initiatives.



### Enhance connectivity

Protect and enhance connectivity to maintain existing ecological linkages to support wildlife and its recovery.



### Enable partnerships

Provide opportunities to collaborate with government, researchers, the community and conservation and other interest groups to build knowledge and understanding which can be applied in the on-ground management activities and shared more broadly.



### Social co-benefits

Contribute to supporting positive economic and social outcomes for communities and Aboriginal people by creating direct and indirect 'green' employment, eco-tourism opportunities and nature areas that can be enjoyed by all.



### Provide landscape scale outcomes

Deliver sizeable offsets that support broader forest and ecosystem resilience and facilitate connectivity of areas over time.