

Huntly mine transition and Pinjarra refinery production increase

Environmental assessment



Flora and vegetation



Alcoa has been operating in Western Australia since 1963. Our Huntly and Willowdale mines send mined bauxite to our Pinjarra and Wagerup refineries where it's refined into alumina, the material used to make aluminium.

Aluminium plays a key role in decarbonisation. It's found in solar panels, wind turbines, electric vehicles, medical equipment and more. We continue to rely on it every day.

The assessment

We are seeking approval to transition Huntly Bauxite Mine to new operating areas and increase alumina production at Pinjarra Alumina Refinery by 5%. This requires assessment by the Environmental Protection Authority (EPA) and approval by the State and Commonwealth Governments to ensure it meets environmental standards and minimises impacts to the environment, cultural values and local communities.

Transitioning to new mine regions is essential for the continued operation of the Huntly mine and Pinjarra refinery. This project will protect thousands of ongoing local jobs, helping sustain the regional economy.

We've undertaken studies to understand the environment and how our activities might affect it and used these in preparing our Environmental Review Document. For flora and vegetation, this includes surveys to prepare and protect conservation significant native plants.

EPA environmental objective aims to

protect flora and vegetation to maintain biodiversity and keep ecosystems healthy.

Key terms

Flora – Native plants found in a specific area.

Vegetation – How different plant species group together across the landscape based on environmental conditions.

Riparian vegetation – Plants that are adapted to grow along the banks of rivers and streams.

Proposed activities

Alcoa's proposed mining activities that could impact flora and vegetation include:

Transitioning mining areas into new locations.

Clearing land for roads, infrastructure, and mining areas.

Operating mining and haulage equipment.

Storing and handling hazardous substances.

Potential impacts

Mining activities have the potential to impact local flora and vegetation in the following ways:

Disturbance – Clearing of vegetation.

Weeds and disease – Spread of weeds and dieback from soil disturbance.

Groundwater changes – Changes to groundwater flow and availability.

Dryland salinity – Rising groundwater levels may increase salinity levels of the soil.

Dust and chemicals – Dust emissions and spills or leaks from hazardous materials.

Managing impacts

Alcoa is working toward the goal of no net loss of biodiversity for major expansion projects and only clears in areas that have been previously logged. We manage potential impacts on flora and vegetation through application of the mitigation hierarchy – avoidance, minimisation, and rehabilitation.

Avoid

- No clearing in high-conservation areas, including old growth forests, national parks, conservation reserves, threatened ecological communities, and conservation category wetlands.
- No clearing of threatened flora, including a 50m buffer around any threatened species found.
- Maintain 100m buffers around mapped riparian vegetation near rivers, streams, and wetlands.
- Clearing will be limited to no more than 32% of the development envelope.
- Weed and disease assessments are undertaken, and appropriate management implemented before clearing to prevent the spread of invasive species and dieback.
- Hygiene measures like vehicle and equipment cleaning and restricting the movement of soil are implemented to minimise the spread of dieback.
- Limit vehicle movement to designated roads and apply dust suppression on high-traffic areas to prevent dust build up on plants.

Minimise

- Limit clearing of streamzone vegetation and mapped granite ecosystems.
- Limit clearing of any priority flora found (as defined by DBCA) to no more than 2% of a population, or no more than 10% if more than 100 individuals exist.
- Limit clearing of groundwater-dependent vegetation and sensitive plant communities for critical infrastructure only.
- Control groundwater levels and baseline salinity in sensitive vegetation areas.

Rehabilitate

For decades, we have continued to develop and follow leading science-based rehabilitation practices.

- We propose rehabilitation rates will match the clearing undertaken for mining and short-term infrastructure on a rolling 3-year basis.
- This progressive rehabilitation uses native seeds collected from within the Northern Jarrah Forrest and nursery-grown seedlings sourced from Alcoa's nurseries.
- Rehabilitation will be prioritised near environmentally significant areas.

How Alcoa monitors potential impacts

Flora and vegetation monitoring – Weed assessments at selected high-traffic locations and vegetation composition and condition monitoring at both impacted and non-impacted sites to allow comparison.

Rehabilitation tracking – Monitoring rehabilitation growth to check against completion criteria.

Clearing limits/extent – Clearing reconciliation conducted to ensure we comply with our clearing limits and extents.



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