Rehabilitation

In respect to Alcoa's Proposed mining expansion

Over 37,000ha of the Northern Jarrah Forest (NJF) **have already been cleared for bauxite mining.** If all planned bauxite mining proceeds,about **120,000 ha (1,200 square km) of the Northern Jarrah Forest will be cleared in the next 20 years.**

Alcoa claims that 75% of their mined areas are rehabilitated. They say they are the first mining company to achieve "100% plant species richness return in young rehabilitation".

OUR CONCERNS

1. **Definition of REHABILITATION used by Alcoa is different from RESTORATION.** Alcoa states that 75% of their mined areas has been rehabilitated. **They mean that rehabilitation** has started and that they have done the first 12 months of landscaping, topsoil return and seeding. Rehabilitation has NOT been completed.

Alcoa CANNOT restore a forest to its pre-mined state.

Rehabilitated site at Huntly mine, a few km east of Del Park Road, 2018. Area was burnt a year or so prior. High stem density of trees, not much diversity in understory vegetation and not many fire resprouted species. (Photo: Jeremy Perey)

Unmined Dwellingup forest

2. **Rehabilitation by Alcoa does NOT meet International Standards-** A recent analysis gave Alcoa **2 out of 5 stars** compared with Alcoa's 4-star medium-term goal.

REHABILITATION AREAS:

1. **do NOT return to a state similar to the forest before mining,**
2. **do NOT improve over longer time frames, and**
3. **do NOT show sustained improved outcomes.**[1]

3. **SouthWest WA has a drying climate with reduced rainfall.** This is a very different situation from when Alcoa first started their mining in the 1960s. Expert ecologists say it is unlikely that a mature Jarrah forest can be recreated in this drying climate[1].

4. It may take many years for soil micro organisms critical to forest health, especially fungi, to be completely regenerated to pre mining levels. This is a long time to wait in a drying climate and may be longer in future. [2]

5. Some plant species, such as **Grass trees, Bracken fern and Snottygobble are not easily re-established** – they are called ***recalcitrant species.*** The rehabilitated forest will not be the same as the pre-mined forest.

6. The **Northern Jarrah forest is being fragmented and is at risk of collapse[3].** It is one of 10 ecosystems in the world at such a risk[3].

7. Alcoa has only signed off a small part of its rehabilitation (~500ha) as completed after 60 years mining and rehabilitation.

Example; Grasstrees (balga, xanthorrhoea preissii) on the left which would be over a century old. Source – Campbell et al 2024 pg3

Example of fragmented Jarrah forest as a result of Bauxite mining. Source Jarrahdale Forest Protectors.

For these reasons the DDFD believes that Alcoa's mining proposal for expansion of mine sites (Holyoake, Myara and O'Neil) and Pinjarra refinery should be rejected by the EPA.

Have your say by signing on to WA Forest Alliance's submission with a quick and simple form or find out more about writing your own at endforestmining.org.au/alcoa.
The comment period is now open and closes on 21 August 2025.

References
1. Campbell et al. Standards-based evaluation inform ecological restoration outcomes for a major mining activity in a global biodiversity hotspot. Restoration Ecology 2024-11,Vol 32(8) p.n/a, Article e14236
2. Banning et al (2011) Soil Microbial community successional patterns during forest ecosystem restoration. Applied and Environmental Microbiology 2011 Vol77,6158-6164.
3. WA Forest Alliance A thousand cuts-Mining in the Northern Jarrah Forests 2022