

# Alcoa of Australia Senate Inquiry Submission

7 April 2017

## **Inquiry into the rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities.**

### **Introduction**

Alcoa of Australia Limited (Alcoa) has been mining bauxite within the Jarrah Forest of Western Australia's Darling Range for over 50 years. During this time, extensive research has been conducted to understand the environmental impacts of the mining operations in the Jarrah Forest with the scientific results informing management practices to minimise or eliminate identified impacts. In particular, Alcoa has spent the last 40 years undertaking extensive research on mine rehabilitation in an effort to meet the "Forest to Forest" objective of the operations. The vast amount of research undertaken to date has resulted in a mine rehabilitation process and standard that leads the resources industry and is recognised as world class. Alcoa is nationally and internationally renowned for its leading mine rehabilitation practices, which have been used by several different entities within Australia and globally in developing mine rehabilitation and closure standards, processes, regulations and policies.

More than twenty years ago the Western Australian Government established a Mining Management Program Liaison Group (MMPLG) as the regulatory mechanism through which Alcoa's Mining Operations are assessed and authorised or, where necessary, adjusted. This process represents an integrated government regulatory group that works with Alcoa to address a broad range of natural resource management considerations, including stakeholder interests. The MMPLG mechanism is seen by many in the Western Australian resources industry as a cornerstone model of collaborative industry/regulator environmental assessment and approval process.

### ***Terms of Reference B: The adequacy of existing regulatory, policy and institutional arrangements to ensure adequate and timely rehabilitation.***

Alcoa's mining operations in Western Australia are regulated by several State Agreement Acts, Ministerial Statement Approvals, Environmental Licences, Environmental Permits and agreements. The existing government mechanisms, supported by various natural resource management policies and guidelines sufficiently address all regulatory requirements for adequate and timely rehabilitation of Alcoa's mine sites. The WA Environmental Protection Authority (EPA) granted approval for the MMPLG to oversee Alcoa's mining operations in accordance with Ministerial Conditions, as assessed by the EPA under the WA *Environmental Protection Act 1986*. The MMPLG is chaired by the Department of State Development (DSD) with membership consisting of representatives from the Department of Mines and Petroleum (DMP), the Department of Parks and Wildlife (DPAW), the Department of Water (DoW), the Department of Environmental Regulation (DER), the Forest Products Commission (FPC), the Water Corporation and Alcoa.

The MMPLG process ensures that all regulatory agencies with a vested interest in Alcoa's Mining operations have a seat at the table to enable an inclusive assessment process resulting in an approval that has been granted on a whole-of-government basis. The MMPLG mining approval process includes annual updates on community priority issues including any complaints or concerns, as well as a progressive update on annual clearing and rehabilitation rates. A site visit is also part of the process whereby the MMPLG members can physically assess the rehabilitation and any areas of the mining operations of interest to them and their respective agencies.

Through the MMPLG process, and as a condition of The Minister for the Environment's approval (Ministerial Statement 728), a Completion Criteria document has been developed and agreed by all parties. The Completion Criteria document specifies the rehabilitation prescription and standards expected to be achieved by Alcoa in undertaking its mine site rehabilitation. This document is reviewed every 5 years, including a public consultation component. Once finalised, the Completion Criteria are made publically available and become the standard by which Alcoa's rehabilitation is assessed.

Through the MMPLG and Completion Criteria processes that regulate Alcoa's Mining operations, the rehabilitation standard is clear, publically available and constantly improving to ensure best practice is implemented, whilst the rehabilitation liabilities (open area) are assessed by the MMPLG annually to ensure potential State liability is continuously monitored and deemed acceptable.

***Terms of Reference D: The effectiveness of current Australian rehabilitation practices in safeguarding human health and repairing and avoiding environmental damage.***

Alcoa has been researching the mechanisms of mine rehabilitation within the northern Jarrah Forest of Western Australia for over 40 years. This extensive body of knowledge has continued to influence the mining rehabilitation process to better reflect an ecosystem as close to the prevailing Jarrah Forest as possible. With the introduction of the Completion Criteria document in the early 1990's, the rehabilitation standards are clearly defined and enable regulators to assess the effectiveness of Alcoa's specific standards in relation to safeguarding human health and avoiding environmental damage. The 5 yearly reviews, including the period of public comment undertaken on the Completion Criteria document, ensures that contemporary practices and stakeholder requirements are incorporated into this continuously improving rehabilitation standard. The outcomes of research undertaken between Completion Criteria reviews is also incorporated into the revision of the rehabilitation standards to ensure current best practices are implemented into the requirements.

In accordance with the principles of best practice, Alcoa was the first mining company in the world to achieve 100% species botanical richness in its rehabilitated mine areas. Species richness is a measure of the botanical species similarity within rehabilitated areas compared to that found in the natural adjacent Jarrah Forest ecosystem, illustrating the effective achievement of Alcoa's "Forest to Forest" rehabilitation objective. The internal target of 100% species richness for mining rehabilitation remains one of Alcoa's important environmental objectives, with continual research assisting rehabilitation processes in efficiently and effectively meeting this goal.

Other Completion Criteria include standards to ensure ongoing timber production, fauna habitat protection and reinstatement, water quality protection, safe forest management access and controlled burning requirements to name a few. With several government agencies having a vested interest within Alcoa's Mining operations, the Completion Criteria were developed to include all stakeholder post-mining rehabilitation requirements.

Incorporated as a new addition to the Completion Criteria during the last review (2015/2016) was a process for “rehabilitation liability relinquishment” which will result in large areas of Alcoa’s mine rehabilitation reverting back to the full management of the Department of Parks and Wildlife (DPaW) for reinstatement into the Forest Management Plan. This final stage of the rehabilitation process provides an end point to Alcoa’s environmental liability, a recognition that the rehabilitation met the required standards, and a reinvestment of the area back into the Forest Management Plan administered by DPaW, illustrating the achievement of a sustainable “Forest to Forest” mine rehabilitation process. Alcoa believes this is an excellent example of how current rehabilitation practices are repairing environmental impacts caused by mine clearing processes.

***Terms of Reference H: The potential social, economic and environmental benefits, including on matters of national environmental significance under the EPBC Act, of adequate rehabilitation, including job opportunities in communities affected by job losses in the mining and resources sectors.***

Alcoa of Australia is the largest employer in the Peel Region of Western Australia, with its mining operations located within the Shire of Murray, Shire of Harvey and Serpentine/Jarrahdale Shire. Rehabilitation of mined areas is a daily activity incorporated into the mine production process, providing employment for local residents and contractors. The social, economic and environmental benefits of Alcoa’s mine rehabilitation program extend into local communities, small businesses, academic institutions, schools, government departments, research organisations, scientific communities, international entities and throughout the mining and resources industry in Australia and globally.

Alcoa in Western Australia is known as a world leader in mine rehabilitation and is proud to showcase and share its knowledge and processes in an attempt to educate and create a bench mark for the industry. Alcoa continues to work collaboratively with governments and stakeholders in an effort to assist in the development and improvement of mine closure and rehabilitation policies and regulations.