

WA Bauxite Rehabilitation Overview

Rehabilitation

Huntly Mine

06 March 2017



Visit Agenda

13:00 – 13:05	Arrive at Myara Mine
13:05 – 13:30	WA Mining Rehabilitation Overview presentation
13:30 – 14:05	Tour active mining operations
14:05 – 14:45	Site visit: Rehabilitation (4 & 7 years)
14:45 – 15:30	Site visit: Huntly Lookout (mature rehabilitation)
15:30	Tour Complete



Your safety today



Fall from Height

Confined Space

Electric Shock

Mobile Equipment

Crane / Lifting

Uncontrolled Release of Energy

Haul Trucks

Critical Risks 6 + 1

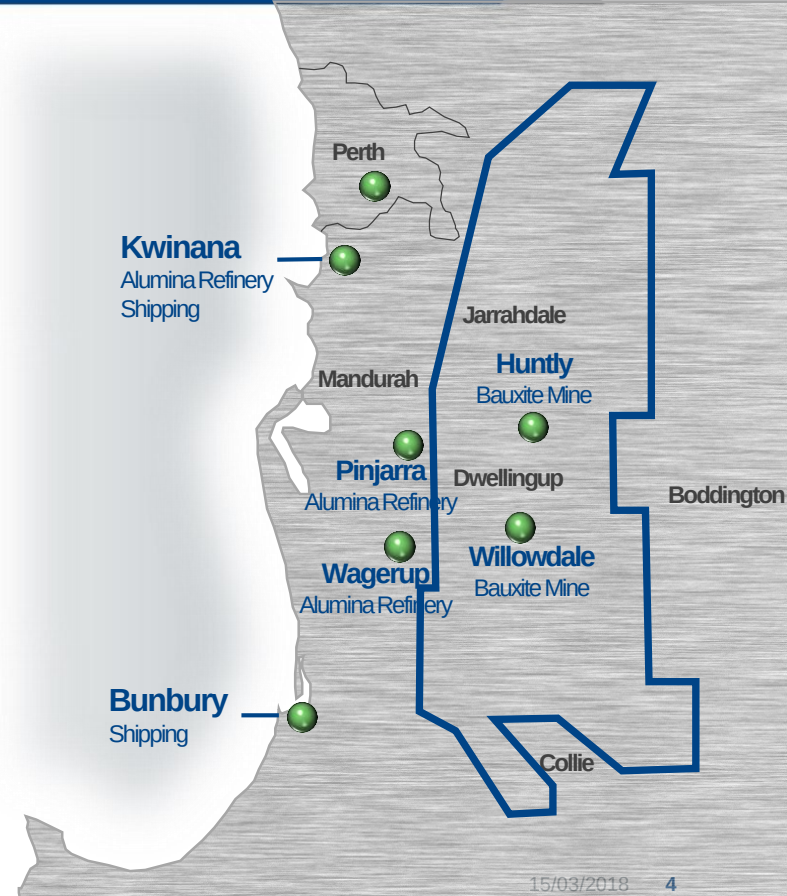


- ☐ PPE required
- ☐ Know the Muster Point
- ☐ Stay close and together!



World class integrated mining and refining system underpinned by a secure mineral lease

- **Three alumina refineries:** Kwinana, Pinjarra and Wagerup
- **Two dedicated port facilities:** Kwinana and Bunbury
- **Two bauxite mines:** Huntly, 2nd largest bauxite mine in the world, 26 million tonnes a year; and Willowdale 10.2 million tonnes a year
- Mineral Lease of 7,129 km² granted under State Agreement. Less than 10% of lease planned to be mined
- Exclusive rights to mine bauxite 1961-2045, with option to extend
- Access to bauxite contingent on preserving and restoring recreation, water catchment, timber resource and conservation land-use values
- To the end of 2016; 24,556ha cleared for mining, 18,927ha of which is under rehabilitation with ~14,500 ready for handback



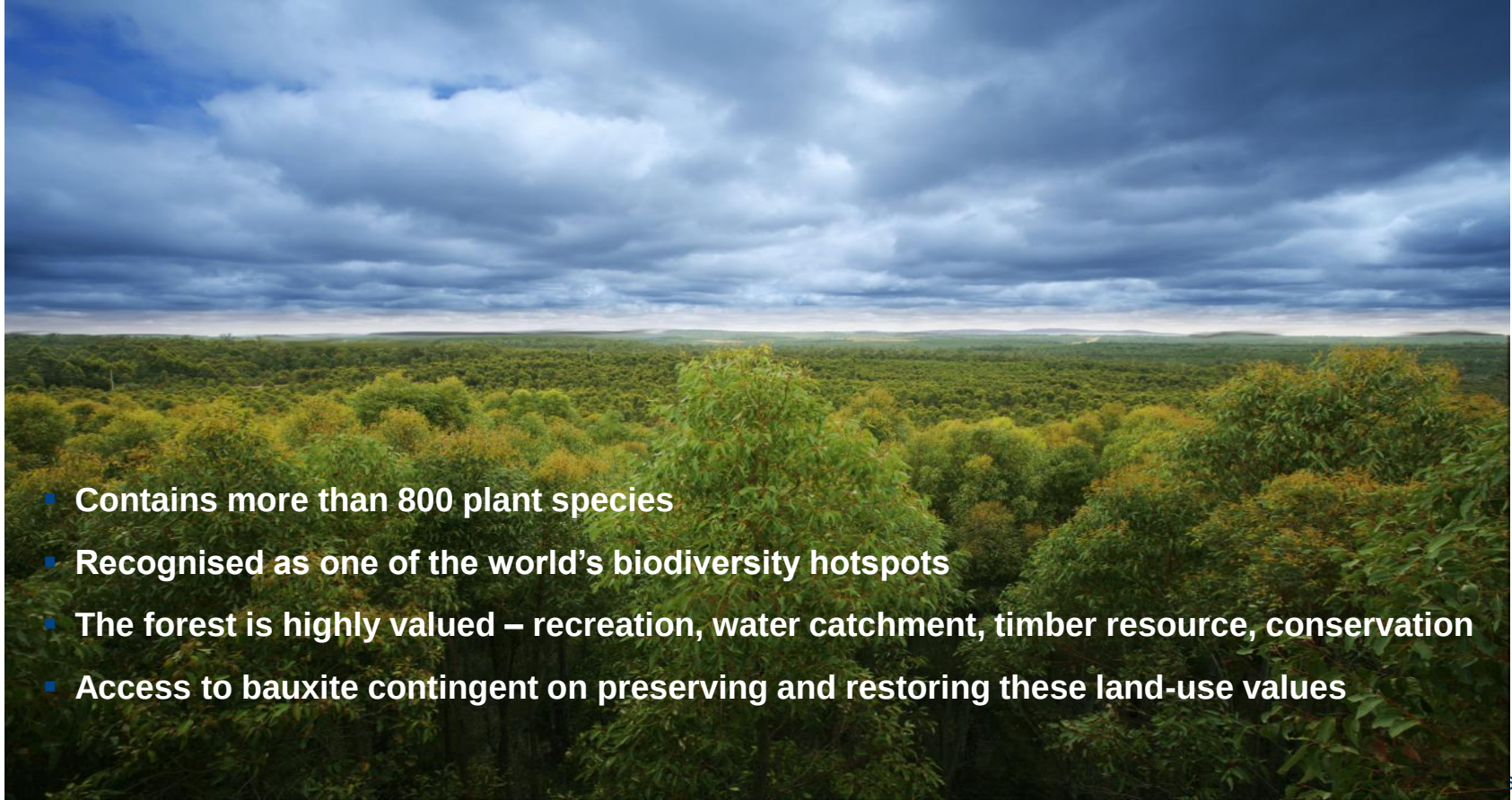
Huntly Bauxite Mine: the second largest bauxite mine in the world



Overview

- Established in 1976 (Jarrahdale 1963 – 1998)
- Produces around 26 million tonnes per year
- Bauxite via overland conveying system to Pinjarra Refinery
- Bauxite via overland conveying system and rail to Kwinana Refinery
- Current crusher location at Myara – east of North Dandalup
- Approximately 600 employees and over 100 contractors
- Recognised work leader in mine site rehabilitation

Privileged to mine in the world's only natural jarrah forest



- Contains more than 800 plant species
- Recognised as one of the world's biodiversity hotspots
- The forest is highly valued – recreation, water catchment, timber resource, conservation
- Access to bauxite contingent on preserving and restoring these land-use values

Stage 1: Development

- Dieback Mapping
- Drilling
- Pre-Mining Surveys
 - European Heritage
 - Aboriginal Heritage
 - Fauna
 - Flora
- Logging & Clearing – Forest Products Commission
- Wood Waste



Stage 2: Pre-mining



Top soil/Overburden



Ripping



SOBR



Blasting

Stage 3: Load and haul



Stage 4: Crushing, conveying and refining



Rehabilitation process

Landscaping



Pre-ripping



Soil Return



Contour Ripping



Planting



Fertilising

Completion criteria and mine closure

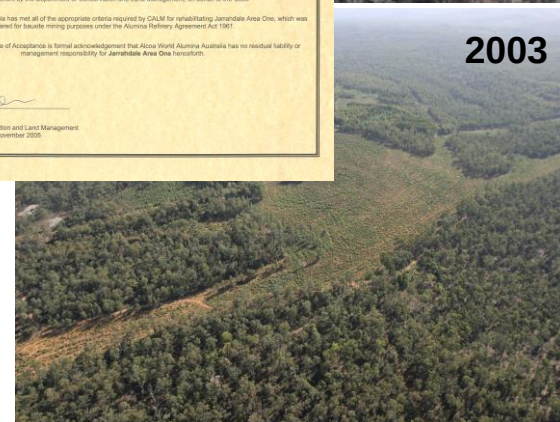
- **1996** First completion criteria for 'post-1988' rehabilitation developed
- **2001** Jarrahdale Mine decommissioned and rehabilitated
- **2002** Completion criteria for 'pre-1988' rehabilitation approved
- **2005** First Certificate of Acceptance for 975ha of rehabilitation at Closed Jarrahdale Mine issued
- **2007** 2nd revision of 'post-1988' rehabilitation completion criteria
- **2015** 3rd revision of 'post-1988' rehabilitation completion criteria
- **2016** Current program of rehabilitation sign-off commenced



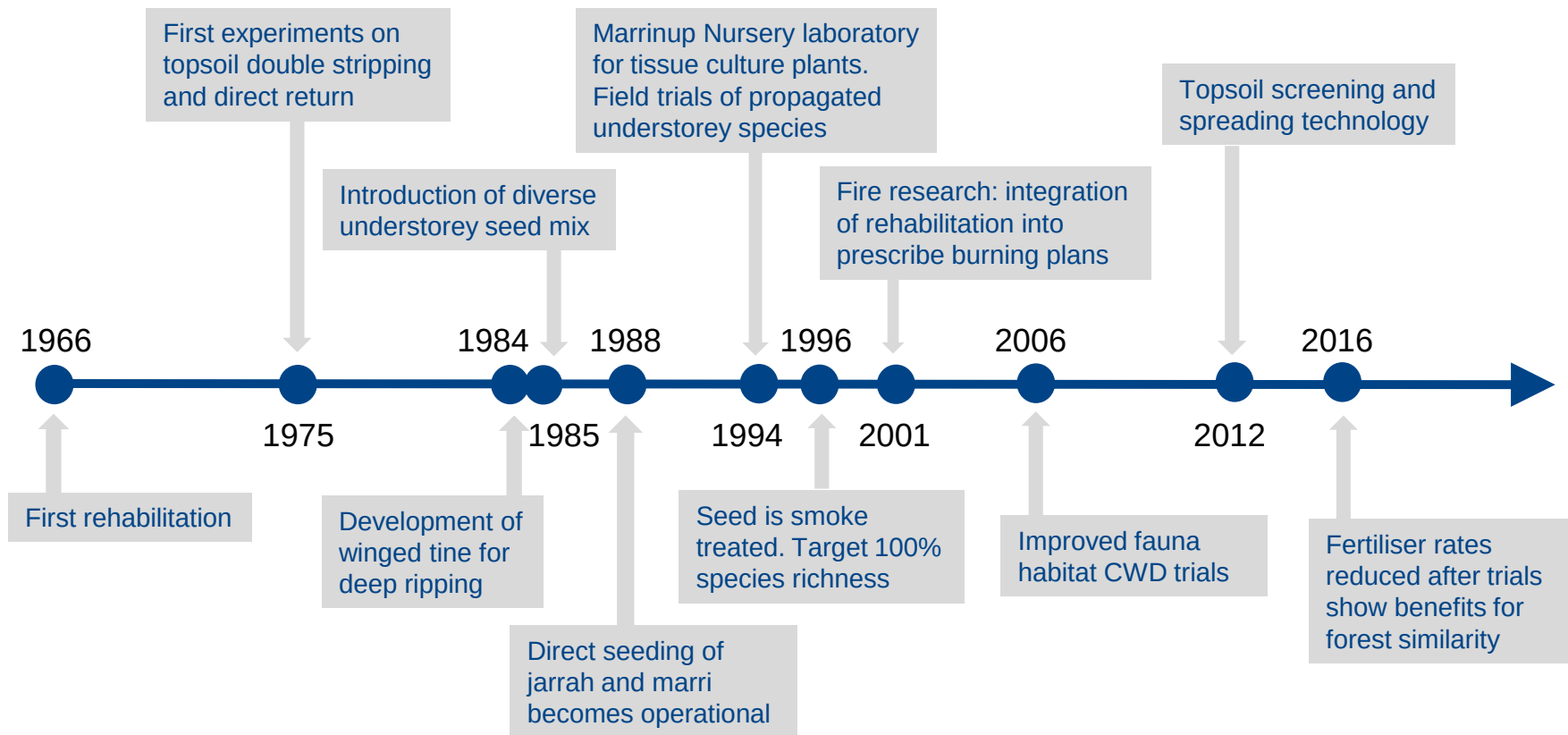
1998



2003

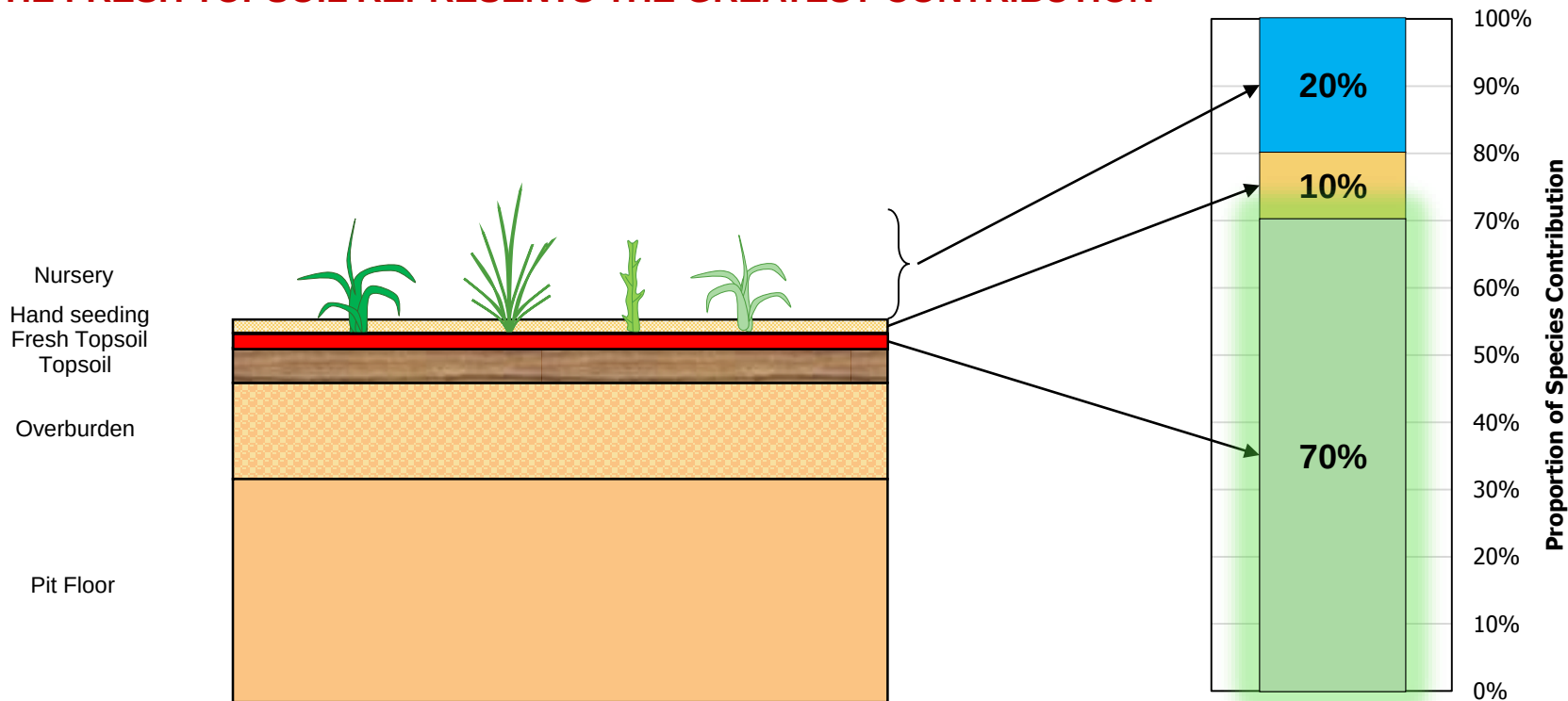


Research has been integral to improving rehabilitation



Species Contribution Breakdown

THE FRESH TOPSOIL REPRESENTS THE GREATEST CONTRIBUTION



1984



2016

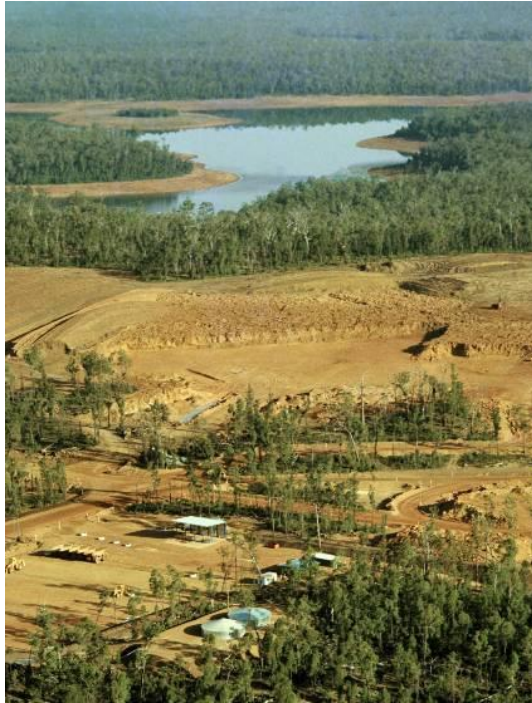


Returning a self-sustaining jarrah forest ecosystem to enhance or maintain water, timber, recreation & conservation values

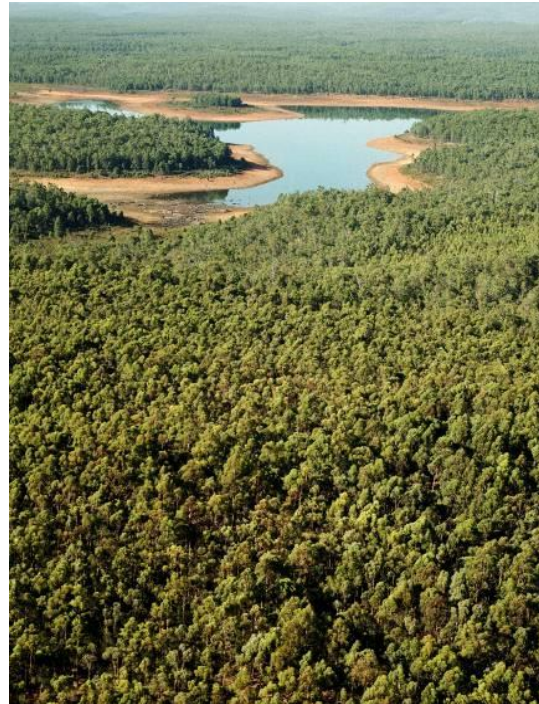


Achieved 100% plant species richness in rehabilitated areas and 100% marsupial, 89% reptile, 90% bird return rates

Del Park 1980



Del Park 2001



Del Park 2017

