

Maxwell Underground Project – MOD2

**Extraordinary CCC Meeting
17 February 2022**

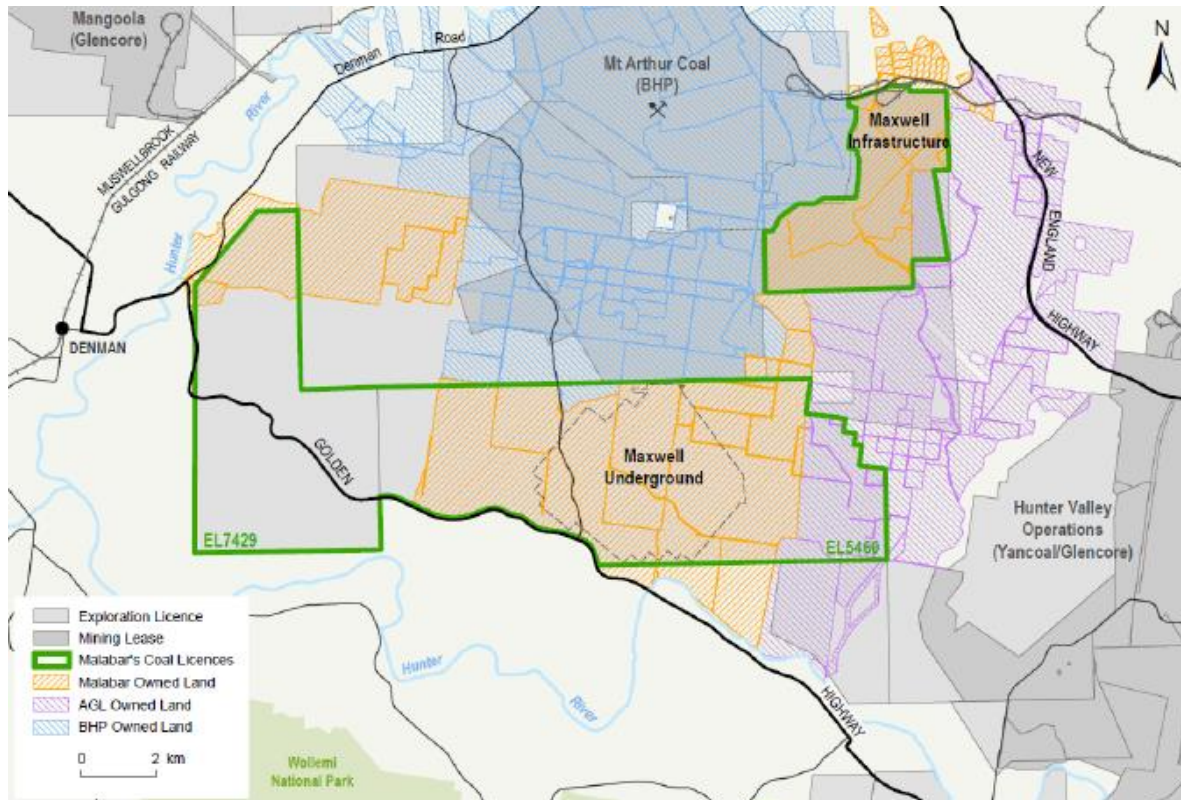
Agenda

1. Introduction
2. Modification 1 – Mine Entry Area
3. Modification 2 – Longwall Reorientation
4. Project Timing

Introduction

Development of the Maxwell UG Project

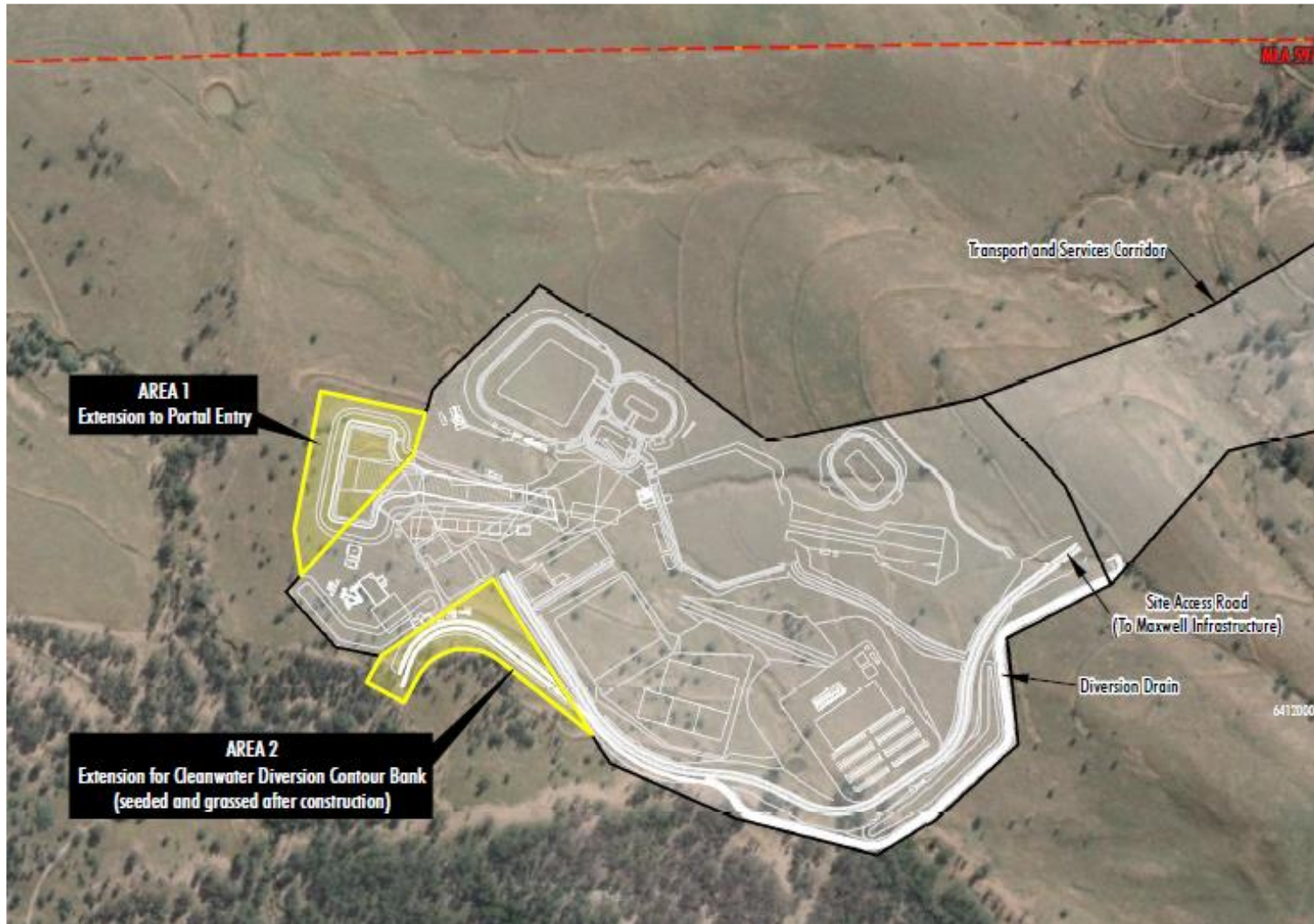
Malabar is committed to developing the Project to co-exist with our neighbours and contribute positively to the local region and NSW.



- ✓ May 2017 – We announced we would develop the Project solely as an **underground mine**.
- ✓ December 2017 – EL5460 was renewed by the NSW Government after Malabar **voluntarily relinquished** that portion of the licence that was south of the Golden Hwy and **voluntarily** proposed conditions on the title to **prohibit open cut mining**.
- ✓ December 2017 – Malabar also publicly supported the NSW Government's amendment to Mining SEPP to **prohibit open cut mining** in this location.
- ✓ 28 February 2018 – transfer of ownership occurred.
- ✓ March 2018 – **rehabilitation recommenced** at former Drayton Mine.
- ✓ 14 August 2019 – **EIS on exhibition**.
- ✓ 30 September 2020 – **NSW DPIE's Assessment Report** states the project is approvable and refers it to the **Independent Planning Commission (IPC)**.
- ✓ 22 December 2020 – **IPC approves the Project**.
- ✓ 10 March 2021 – **Federal Minister approves the Project under EPBC Act**.

Modification 1 – Mine Entry Area

MOD1 Overview – Indicative MEA Layout



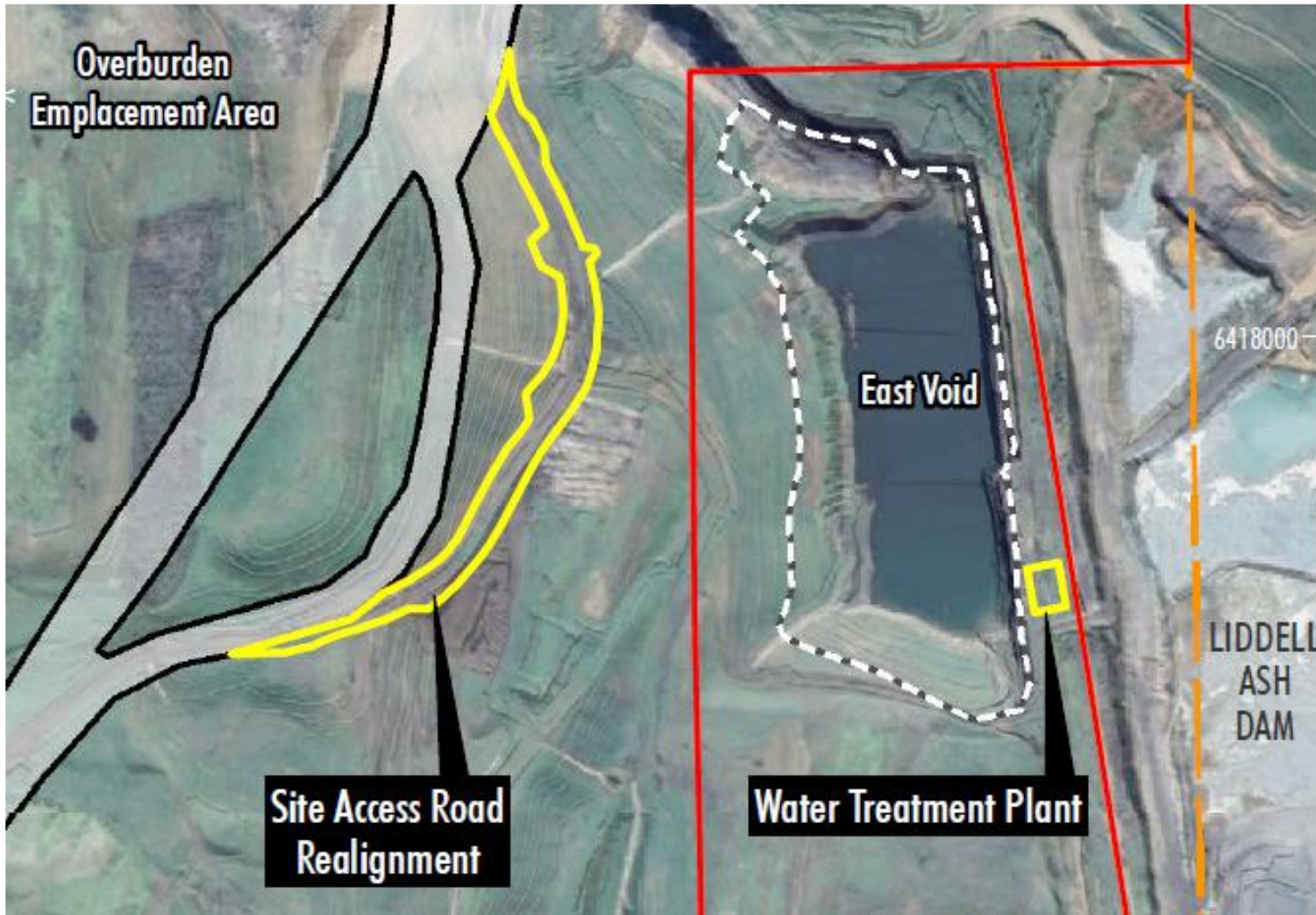
Extension to Portal Entry

- ✓ Removes the need for a bend in the drift conveyor
- ✓ Revised location provides better water management outcomes – reduced risk of ingress to underground workings
- ✓ Simplifies surface ROM coal handling by removing a surface conveyor
- ✓ Reduction in the grade of the drift provides various operational and safety benefits
- ✓ Reduction in total capital cost for drift

Clean Water Diversion

- ✓ Provides improved separation between clean water from natural catchment and mine water management system

MOD1 Overview – Indicative Maxwell Infrastructure Layout



Relocation of Water Treatment Plant

- ✓ Reduces costs and lowers environmental risks associated with pumping brine from MEA to Maxwell Infrastructure

Site Access Road Realignment

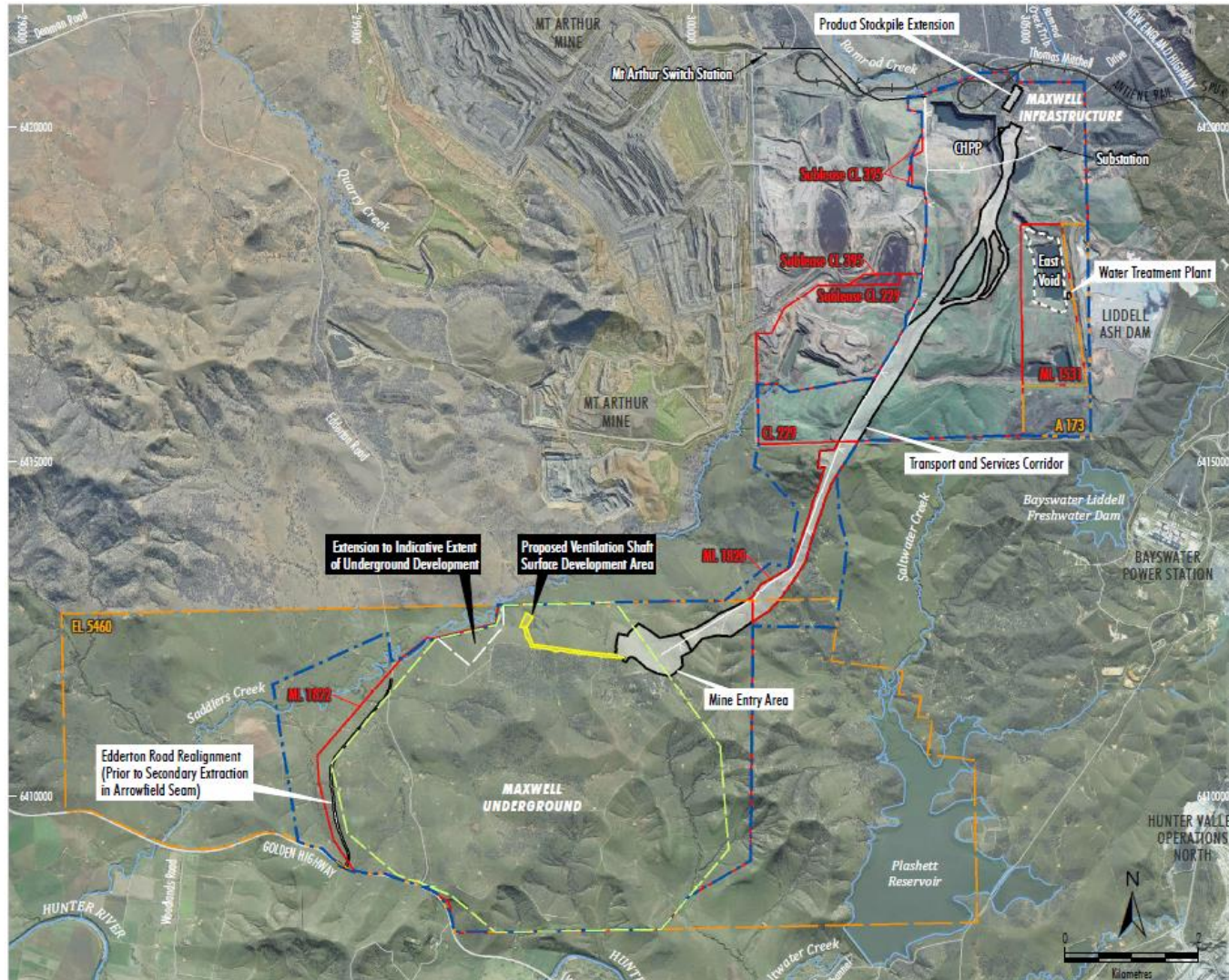
- ✓ Makes use of existing haul road and minimises impacts to existing rehabilitation

Modification 2 – Longwall Reorientation

Introduction

- Malabar has continued to evaluate options to optimise the underground mining layout to improve efficiency and safety, including input from Malabar's expanding technical and engineering team.
- An improved underground mine layout has been identified that achieves:
 - Safer working conditions
 - Lower capital cost to first production
 - Quicker ramp up to longwall mining (and associated economic and community benefits)
 - Minimal net incremental environmental impact relative to the approved underground mine layout.

MOD2 - Overview



- The proposed modification is wholly within Development Application Area.
- Key changes are:
 - Re-orientation of longwall panels to better align to geotechnical conditions
 - Commencing production in the Woodlands Hill seam initially with 145m wide longwall panels, and then increasing the longwall to 300m wide. (The EIS commences with a 300m wide longwall at the outset).
 - Relocation of the Woodlands Hill seam ventilation shaft to suit this revised mine layout.

- Approved Maxwell Underground Mine Development Application Area
- Indicative Extent of Underground Development
- Indicative Surface Development Area
- CHPP Reject Emplacement Area
- 66 kV Power Supply
- Proposed Modification
- Modified Indicative Extent of Underground Development
- Indicative Modification Surface Survey Area

MOD2 – revised longwall layout

Approved



Proposed



Benefits of revised longwall layout (orientation and narrower initial panels)

- ✓ Provides a safer environment for our people and equipment for the mine life (+25 years).
- ✓ Mine plan aligns more favourably to the geotechnical environment.
- ✓ Reduction in longwall retreat metres effecting subsidence impacts on Edderton Rd.
- ✓ Initial three longwalls extracted without undermining Edderton Road (undermining of the road with the initial panel of the Approved EIS plan). Data collected during these initial panels will provide important information for future subsidence monitoring and management program for Edderton Road.
- ✓ Less development drivage to first longwall coal, resulting in the earlier commencement of longwall production (and associated economic and community benefits).
- ✓ Reduced capital expenditure to steady state production.
- ✓ Reduction in future capital cost by removing requirement to reconfigure longwall equipment.
- ✓ Initial longwall panels extracted in a lower gas regime providing additional time to develop gas management strategies, including beneficial re-use.

Benefits – ventilation shaft relocation

- ✓ Relocates the ventilation shaft for the Woodlands Hill Seam closer to “pit-bottom” of the surface-to-seam access drifts and the in-seam access. The benefits include:
 - ✓ Development drivage for the ventilation circuit will be completed more quickly so allowing the ventilation circuit to be functioning for the benefit of the underground working environment.
 - ✓ Minimises development drivage to complete the shaft ventilation circuit focusing the development drivage efforts towards first longwall coal.
 - ✓ Reduces life of mine ventilation pressures which improves ventilation efficiency and so minimizes the risk of spontaneous combustion.

Assessment Pathway

- The Modification application would be under section 4.55(2) of the *Environmental Planning and Assessment Act 1979*.
- Consideration of the following key environmental aspects would be required:
 - Subsidence
 - Groundwater
 - Biodiversity
 - Aboriginal cultural heritage
 - Visual amenity, and;
 - Surface water and flooding.
- The Modification would involve some additional surface disturbance for repositioning the ventilation shaft.
- EPBC process – variation of existing EPBC approval or lodge EPBC referral ('Not a Controlled Action' or assessed on Referral Information).

Planned Stakeholder Engagement

- Comprehensive consultation with Registered Aboriginal Parties as part of ACHA process
- Consultation with other agencies:
 - Biodiversity Conservation Division
 - DPIE – Water
 - Environment Protection Authority
 - Heritage NSW
 - Mining, Exploration and Geoscience
 - Muswellbrook Shire Council
 - Resources Regulator
 - Subsidence Advisory NSW
- Presentation to the Maxwell Community Consultative Committee
- Presentation to Coolmore and Woodlands Thoroughbred Studs
- Consultation with near neighbours

Project Timing

Update on Project Timing & Development

- All pre-construction environmental management plans approved in 2021.
- Established the Maxwell Community Consultative Committee in September 2021.
- Planning Agreement established with the Muswellbrook Shire Council in September 2021.
- ML1820 and ML1822 granted in November 2021.
- MOD1 – MEA Modification approved in November 2021.
- EPBC 2018/8287 Approval was varied in December 2021 following MOD1 approval.

Calendar years	2021				2022				2023				2024				2025 onwards			
Mining Leases & Management Plans	■	■	■	■																
Site readiness & Construction preparation				■	■	■	■													
Construction of Access Rd & MEA						■	■	■	■	■	■	■								
Construction of Mine Access Portals, Drifts & Vent Shaft						■	■	■	■	■	■	■								
Construction of site infrastructure						■	■	■	■	■	■	■								
Onboarding Workforce										■	■	■	■	■	■	■				
Development Coal produced to set up for Longwall production													■	■	■	■	■	■	■	■
Longwall ordered, manufactured, delivered and installed									■	■	■	■	■	■	■	■				
Design & Construction of overland conveyor										■	■	■	■	■	■	■				
Longwall production																	■	■	■	■

Benefits of our Project

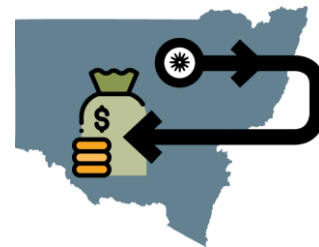
350 
new, direct jobs and many
more indirect jobs

\$55m 
annual wages


Certainty - there will never
be an open-cut mine
within EL 5460


better rehabilitation
outcomes

\$500 to 700m
annual export
income for NSW



\$1 to 1.2bn*
royalties to NSW
over initial 26 years

