

MAXWELL UNDERGROUND PROJECT

IPC BRIEFING



Overview



Who we are

Malabar Resources is an independent Australian-owned mining company based in the Hunter Valley.

Malabar owns:

- The Maxwell Underground Project exploration licence (EL 5460);
- The Spur Hill Underground Project exploration licence (EL 7429);
- The now-closed Drayton Mine and the associated infrastructure – re-named “Maxwell Infrastructure”; and,
- The Maxwell Solar Farm.

We are industry leaders in underground, longwall coal mining.

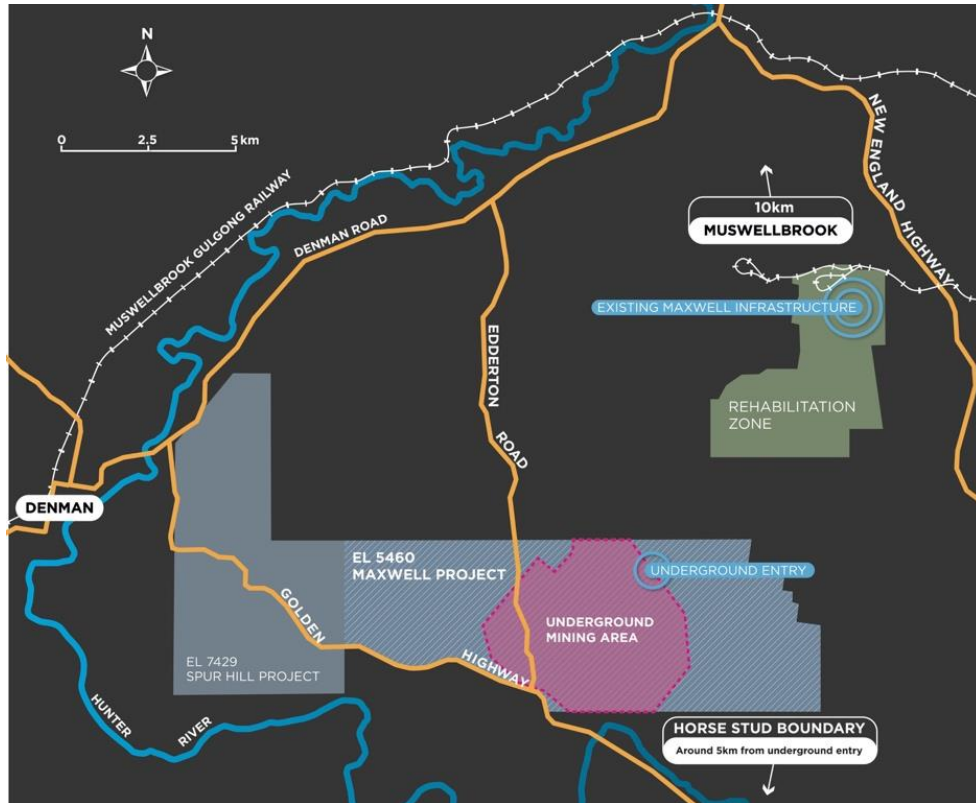
Collectively, our principals have more than 300 years experience in the coal industry.

Our principals have designed, commissioned, and operated six underground coal mines in NSW.



The Maxwell Project

.....a long life underground coal mine located east of Denman and south of Muswellbrook.



- We are planning on producing high quality coals with at least 75% of coal produced capable of being used in the steel manufacturing industry. The balance would be export thermal coals suitable for the new generation High Efficiency, Low Emission (HELE) power generators.
- Underground mining means significantly lower impacts than an open-cut mine.
- We have carefully placed the mine's entry for the underground project in a valley c.5 km north of the Golden Highway. This means it cannot be seen from the Highway or the local horse studs.

We believe this very different approach addresses concerns that were raised in relation to past proposals for the area.

The benefits of our project

350 

new, direct jobs and many more indirect jobs

\$55m 

annual wages



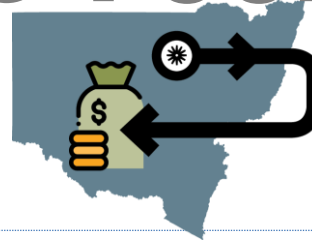
Certainty - there will never be an open-cut mine within EL 5460



better rehabilitation outcomes

\$500 to 700m

annual export income for NSW



\$1 to 1.2bn*

royalties to NSW over initial 26 years



On-going support for local businesses

Community groups we have supported include:



* undiscounted

Our philosophy



Angus-Charolais cross steers on rehabilitation

- ✓ Being aware of our neighbours points of view and proactively enhancing our interactions.
- ✓ Maintaining and **enhancing agricultural activity** on our land that is not required for mining activities.
- ✓ **Supporting local employment** (particularly the younger generations) and businesses.
- ✓ Developing a **sustainable long-term enterprise**.

Our philosophy has driven key decisions for the Maxwell Project:

- ✓ Commitment to underground only.
- ✓ Minimising additional surface infrastructure (use of substantial existing Maxwell Infrastructure).
- ✓ Locating the underground mine entry in an area shielded by ridgelines.
- ✓ Access point from Thomas Mitchell Drive in the north (purposely constructed for access to mines).
- ✓ No direct subsidence of the Hunter River or Saddlers Creek.
- ✓ Transport of longwall coal via conveyor to existing CHPP.
- ✓ Sealing the access road.



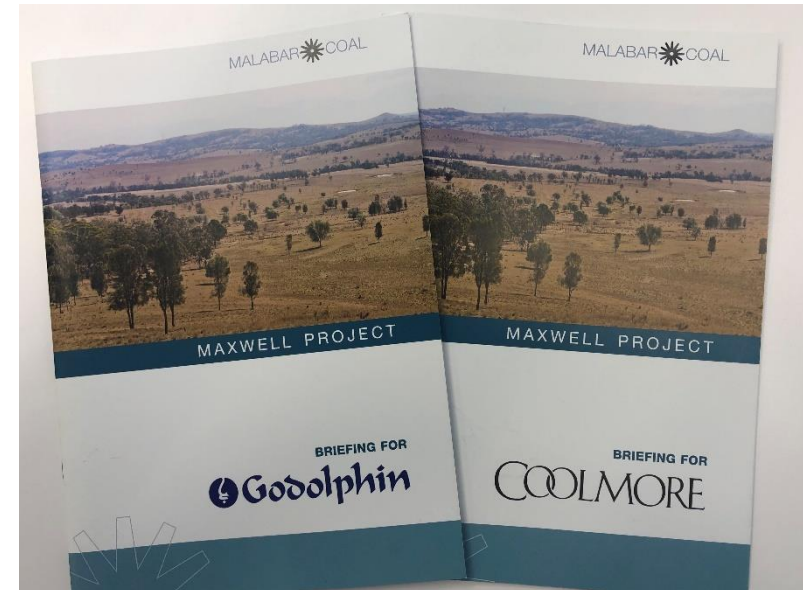
Community Perspective



Extensive community consultation

A comprehensive community consultation programme was undertaken for the Social Impact Assessment. Malabar has also continued to consult with the community following submission of the EIS.

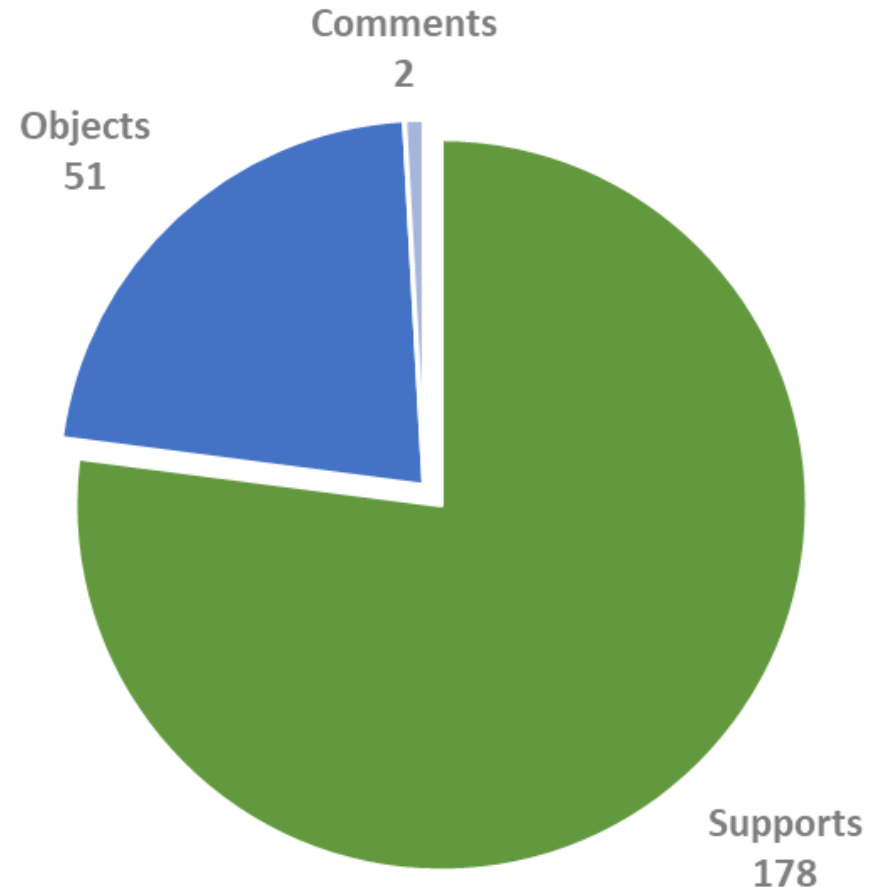
- ✓ Malabar prepared property specific booklets for all properties within 2.5 km, including the Coolmore and Godolphin Woodlands studs.
- ✓ Coolmore and Godolphin booklets explained Project design measures and addressed issues raised for Drayton South and during the Maxwell Project EIS consultation.
- ✓ Malabar hosted a site visit for Coolmore executives.
- ✓ Site visit offered to Godolphin team.
- ✓ Landholder booklets explained key property-specific impacts in plain English.
- ✓ Malabar met with a number of landholders to walk them through the booklets and discuss any issues.



Public feedback

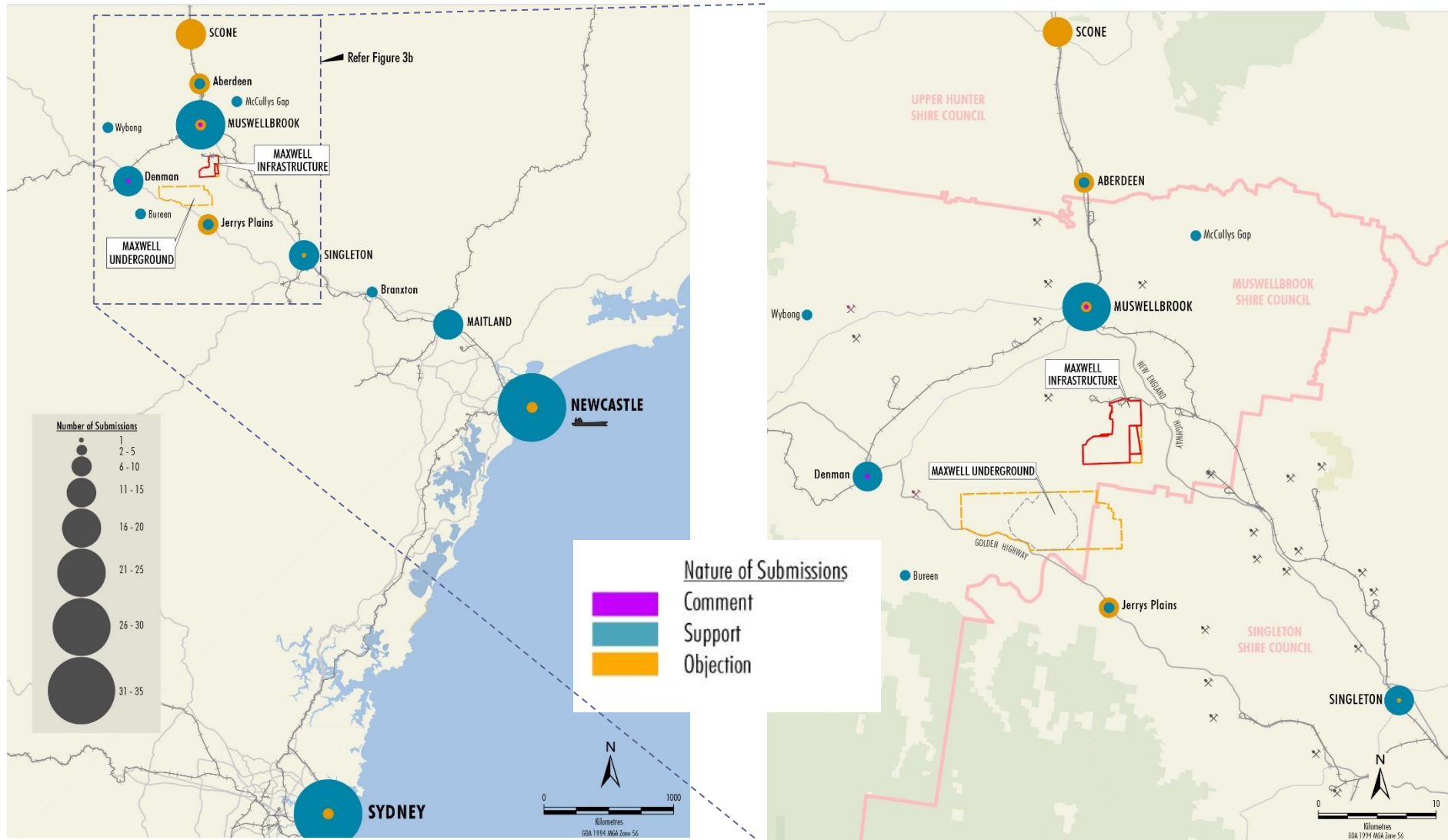
A total of 231 public submissions were received from individuals and organisations with 77% of submissions expressing support for the Project.

- ✓ The local community understand the benefits and trade offs associated with coal mining, and the benefits win out.
- ✓ To continue to be a vibrant community, **we need a wide range of jobs, for a wide range of people.** The locals we speak with want new opportunities to keep families and young people working in the region.



Strong support in local communities

The majority of submissions received from organisations and members of the public in Muswellbrook, Denman and Singleton were supportive of the Project.



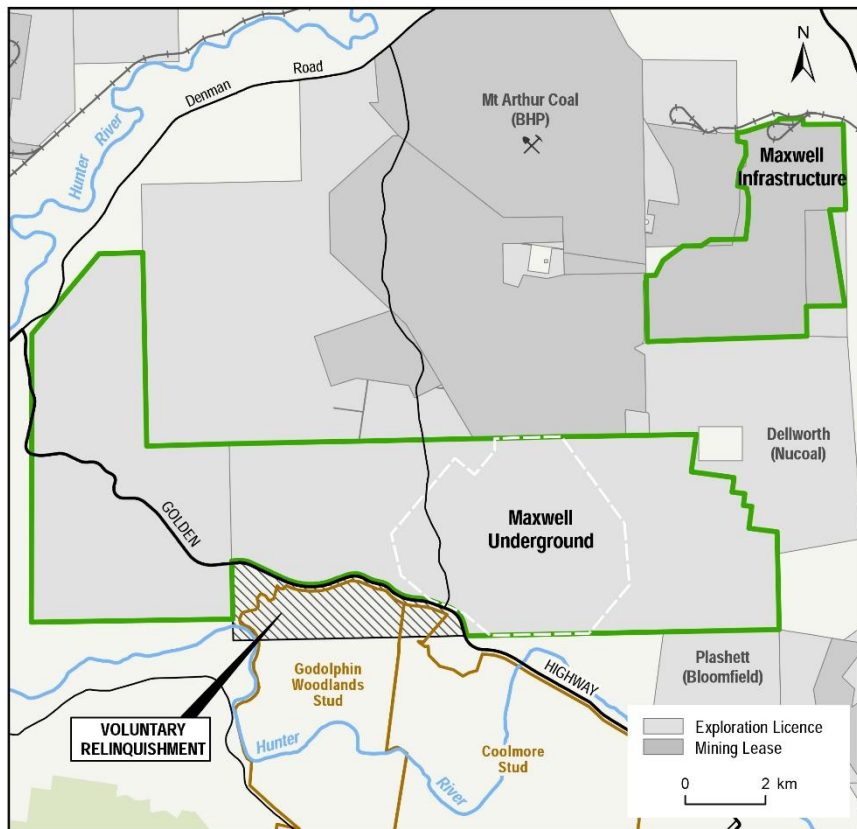


The Project in Detail



Project history

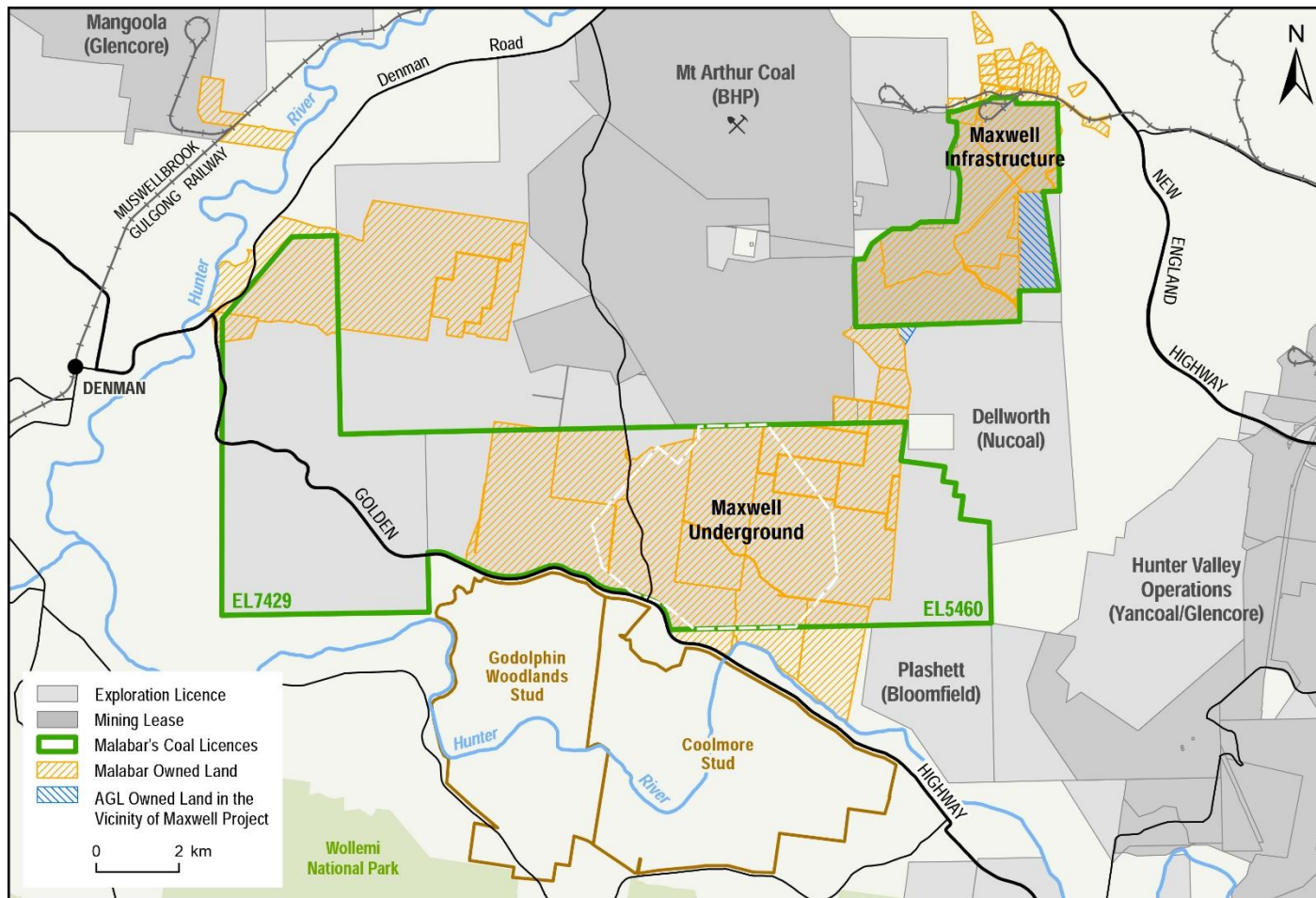
Malabar is committed to developing the Project to co-exist with our neighbours and contribute to the region and NSW.



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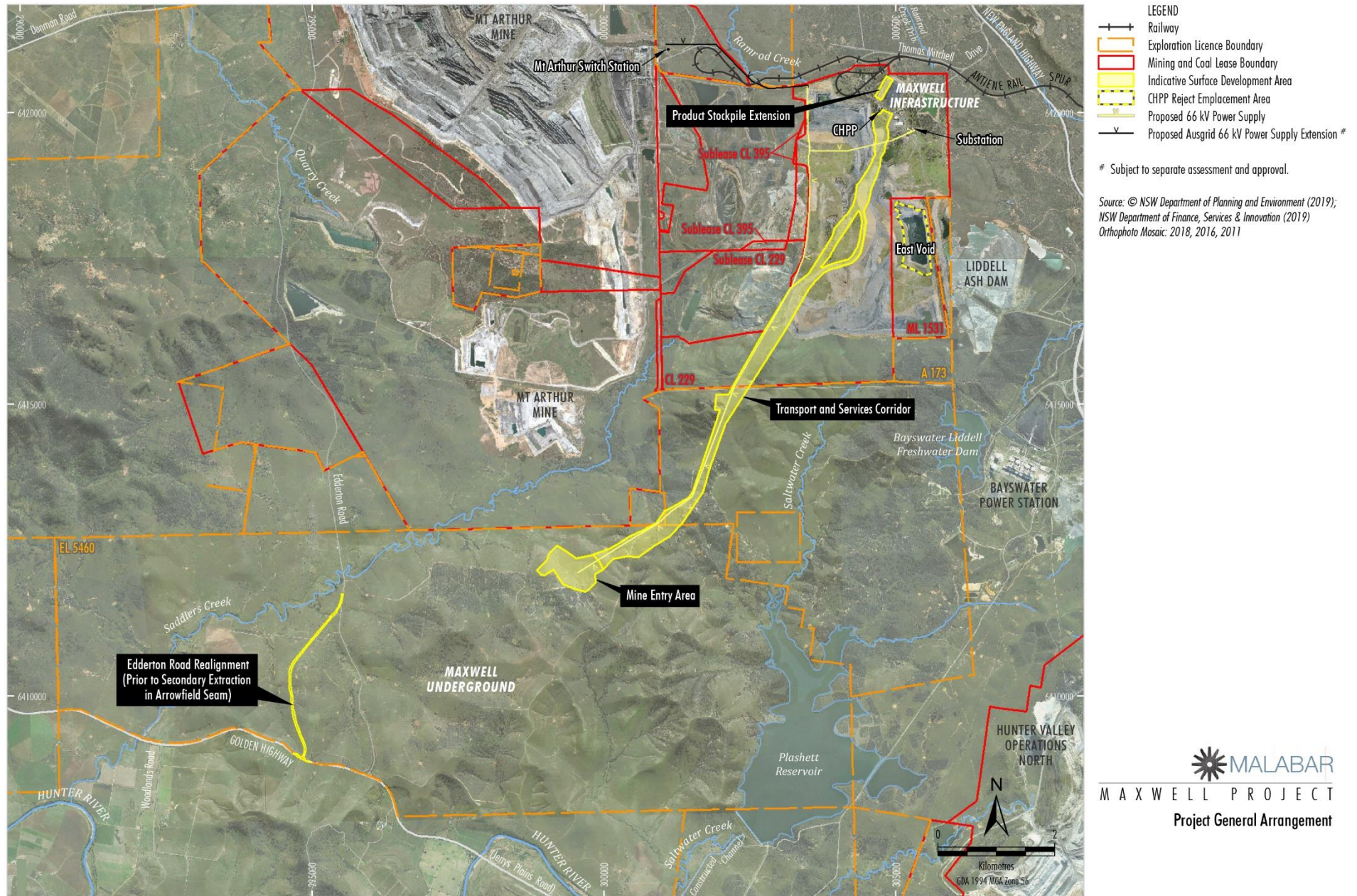
- ✓ May 2017 – Malabar announced it would develop the Project solely as an **underground mine**.
- ✓ December 2017 – EL5460 renewed with **voluntary relinquishment** of a portion south of the Golden Highway and **voluntary** conditions to **prohibit open cut mining**.
- ✓ December 2017 – Malabar publicly supported the Mining SEPP amendment to **prohibit open cut mining**.
- ✓ 28 February 2018 – transfer of ownership formally completed.
- ✓ March 2018 – **rehabilitation activities recommenced** at former Drayton Mine.
- ✓ 14 August 2019 – **EIS on exhibition**.
- ✓ Ongoing – regular meetings, site visits and other contact with near neighbours.

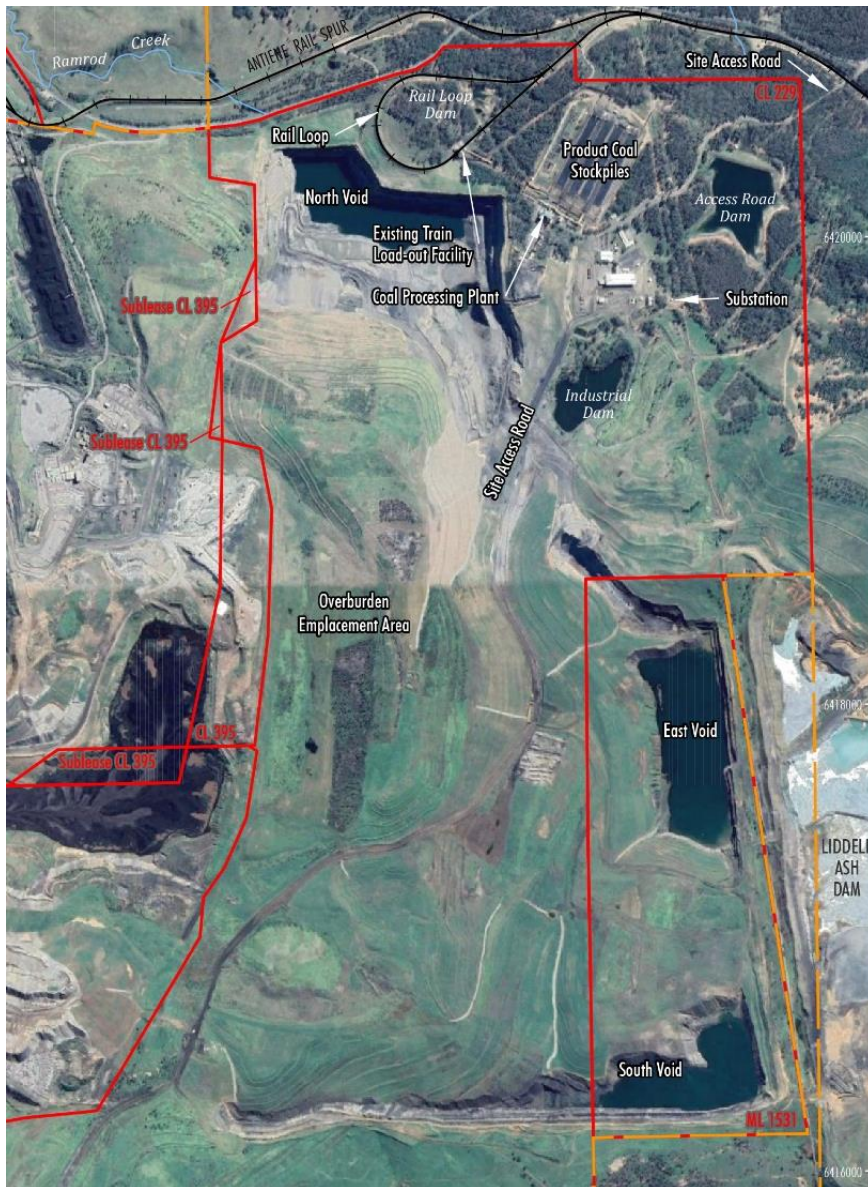
Land ownership



- Area hatched in orange shows land owned by Malabar.
- We will mine under land we own.
- Mine infrastructure will primarily be located on land owned by Malabar (exception is a small portion owned by AGL).

Project boundary

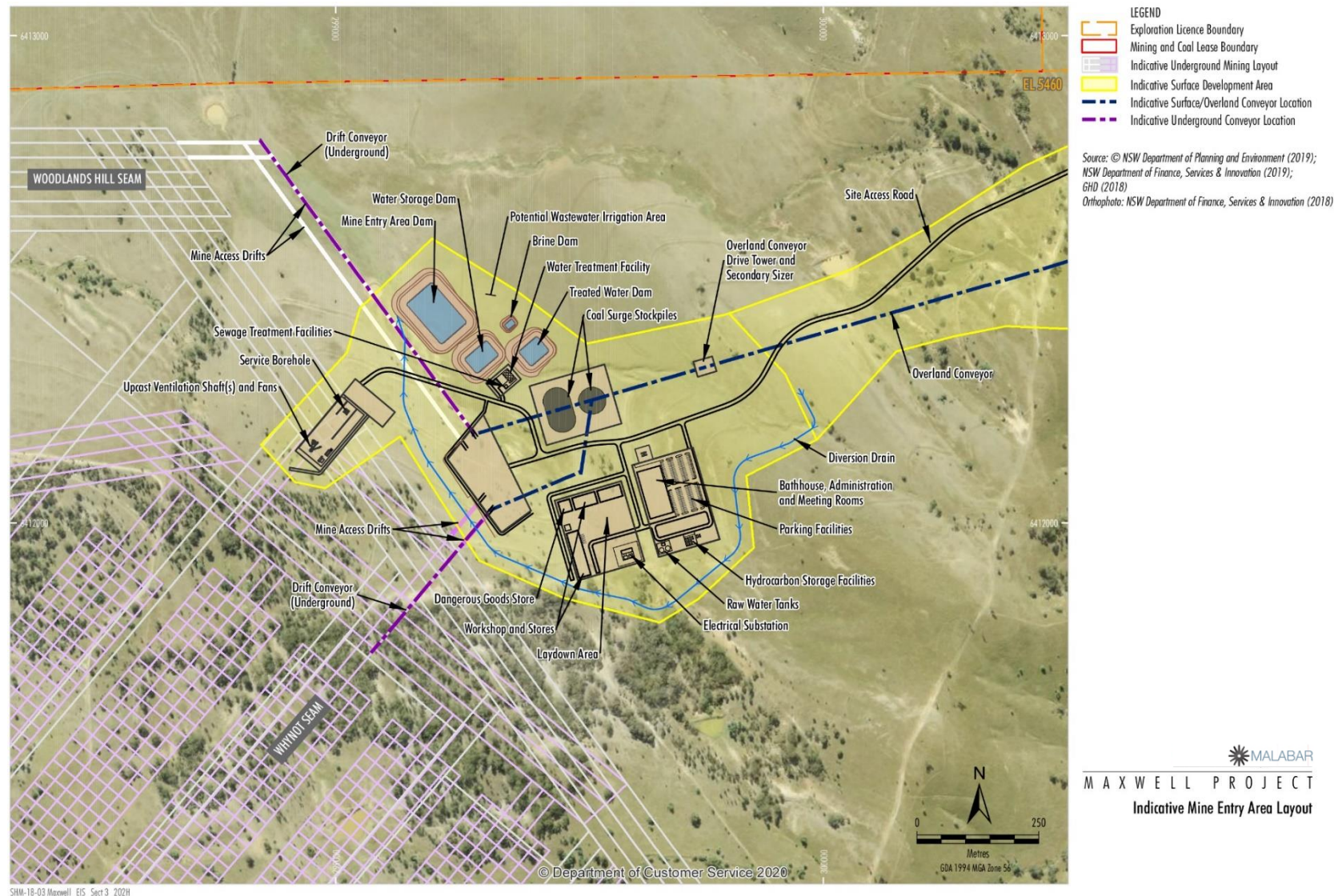




Former Drayton Mine is now known as 'Maxwell Infrastructure'.

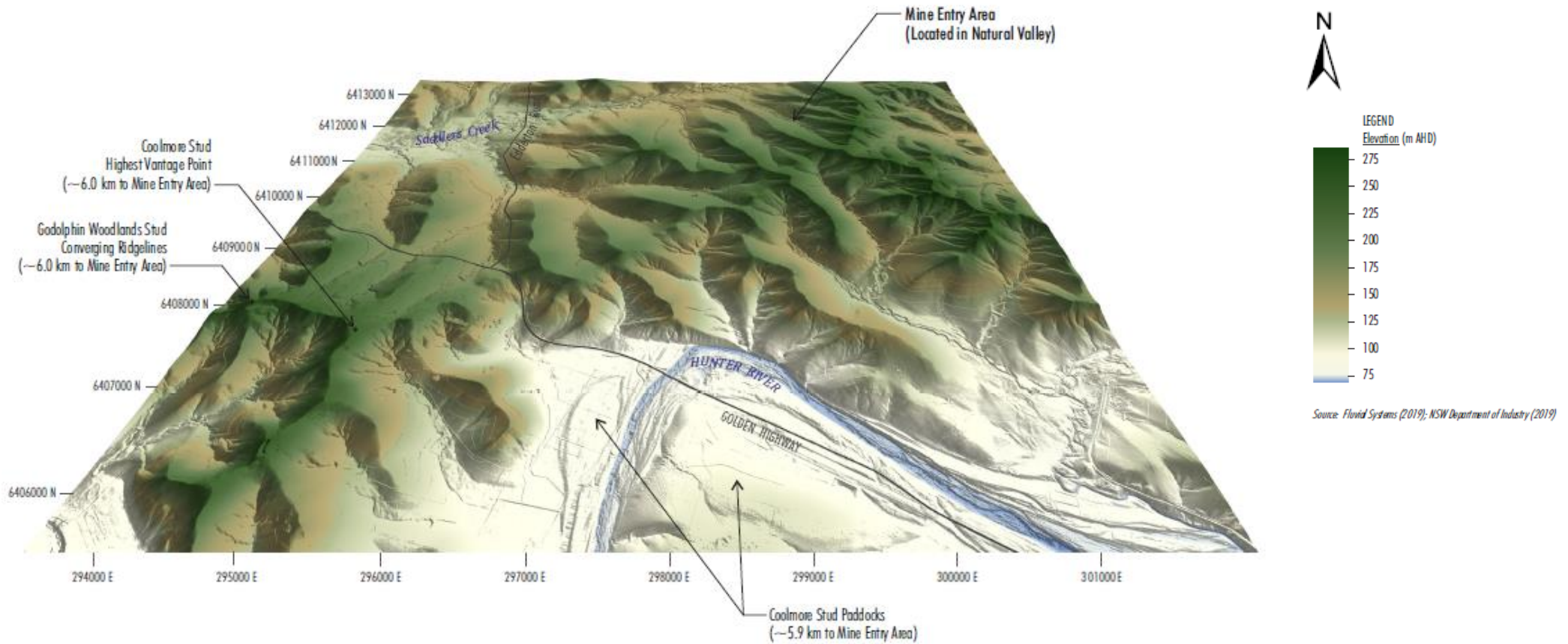
- The Maxwell Infrastructure includes an existing CHPP, train load-out facilities and other infrastructure and services, plus;
- Three voids left behind by previous mining activities (North Void, East Void and South Void).
- The substantial existing Maxwell Infrastructure would be used for handling, processing, and transporting coal, and, water management for the life of the Project.
- The Project would also support continued site rehabilitation, including reducing the volume of the East Void through emplacement of reject material generated by coal processing activities.

Mine entry area detail



- ✓ “Compact” layout designed to minimise disturbance of the surrounding pasture and woodlands.
- ✓ Only contains elements required to directly support the underground mining operation.

Mine entry will be located behind substantial ridge lines



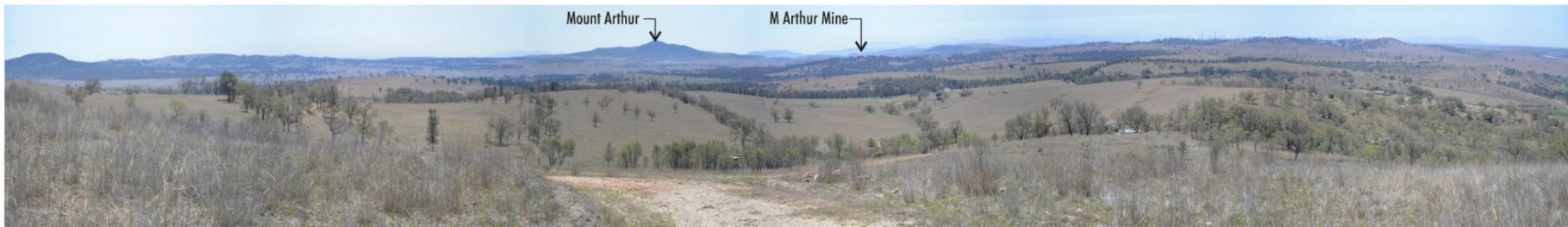
- ✓ The mine entry is c.5 km from the closest non industrial neighbour.
- ✓ Intervening property will be utilised for either agriculture or environmental offsets.

Aerial simulation

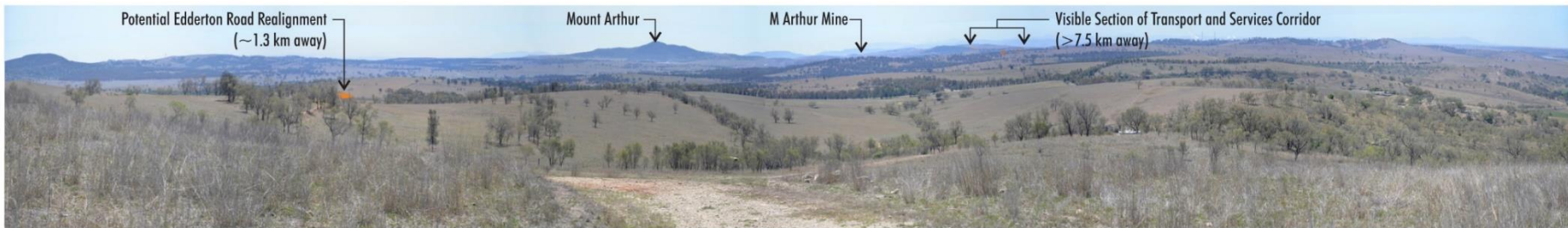


Orthophoto Mosaic: 2018, 2016, 2011

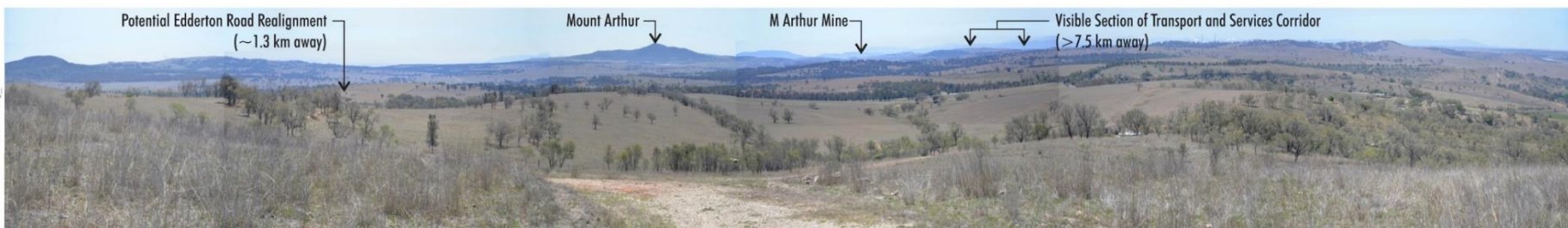
View from highest vantage point on Coolmore Stud



COOLMORE STUD HIGHEST VANTAGE POINT - EXISTING VIEW



COOLMORE STUD HIGHEST VANTAGE POINT - PROJECT COMPONENTS (HIGHLIGHTED)



COOLMORE STUD HIGHEST VANTAGE POINT - PROJECT SIMULATION

LEGEND

 Visual Simulation

Source: VPA (2019)

Maxwell Infrastructure final landform



We take our rehabilitation responsibilities very seriously.

- ✓ Malabar commenced rehabilitation within a week of taking control of the Drayton Mine.
- ✓ There are 849 hectares of pasture and woodland rehabilitation on site.
- ✓ In the last 18 months we planted over 34,000 tubestock in our existing woodland corridor.
- ✓ The Project would provide for the backfilling the existing East Void.
- ✓ There is potential to work with AGL and other mine operators to reduce the size of the voids through the emplacement of their waste materials (subject to appropriate approvals).

“... the Department considers that a stable, non-polluting and appropriately integrated final landform is achievable at the Maxwell Infrastructure site.” (DPIE Assessment Report)

Maxwell Infrastructure final landform

Malabar has made great progress with the rehabilitation of the Drayton Mine.



Antiene and East Antiene rural residential areas are expected to experience less impacts than those associated with the former Drayton mine.

- Malabar maintains regular contact with representatives from the area through the Maxwell Infrastructure CCC.
- Maximum run-of-mine and product coal tonnages are the same as the former Drayton Mine.
- The Project would **comply with all relevant criteria** for Project-only 24-hour average dust concentrations, cumulative annual average dust concentrations and dust deposition levels at all privately-owned receivers.
- Only four properties would experience marginal exceedances of the Project-specific noise trigger levels and would have the right to mitigation measures at their property on request, such as mechanical ventilation/comfort condition systems to enable windows to be closed, in accordance with the Voluntary Land Acquisition and Mitigation Policy.
- All other properties would have negligible or no exceedance of the Project noise trigger levels apart from temporary impacts associated with construction activities.

“...Department and the EPA are satisfied that the noise and air quality impacts of the Project can be managed under the recommended conditions or an EPL for the site.”
(DPIE Assessment Report)

Coexistence with equine industry

Malabar has sought to address previous feedback from the equine industry by committing to underground mining and other significant project design measures.

- Conservative air quality and noise modelling indicates there would be negligible amenity impacts on the Coolmore and Godolphin Woodlands Studs, in particular:
 - Changes in particulate matter concentrations in the air at the studs would be negligible.
 - Changes in dust deposition on pastures would be negligible.
 - Noise contributions from the Project at the studs would be indistinguishable from background noise.
- Production blasting would not be required for underground mining activities. Malabar would seek to eliminate or minimise the need for construction blasting (which would not be noticeable if required).
- There would be no subsidence impacts on infrastructure or land owned by Coolmore or Godolphin.
- Project traffic on the Golden Highway and Edderton Road would be limited through use of the existing site access from Thomas Mitchell Drive.
- Edderton Road would be realigned and the Saddlers Creek crossing upgraded prior to longwall mining in the Arrowfield Seam.
- Views of the Project's surface components would be largely screened by the topography to the north of the Golden Highway.

“...the Department considers that the Project is unlikely to have any demonstrable impact on the reputation and viability of Equine and Viticulture CICs.” (DPIE Assessment Report)



DPIE's Assessment Report



DPIE's Assessment Report

Malabar accepts the findings of the NSW Department of Planning, Industry and Environment (DPIE)'s Assessment Report and the recommended Conditions of Approval.

*“The Departments’ assessment has concluded that the impacts of the Project would **comply with relevant assessment criteria, policies and guidelines**. The Department also considers that the residual environment and social impacts of the Project can be **managed under recommended conditions and a comprehensive set of management plans**.”*

*“The Department received detailed technical advice on the Project from **14 government agencies and infrastructure providers**. While a number of agencies sought additional information or clarity regarding aspects of the Project, they were **all satisfied that the Project could be appropriately managed and regulated** in accordance with the Department’s recommended conditions of consent and other applicable regulatory instruments.”*

*“The proposed Project **complies with these legislative restrictions** [in the Mining SEPP] and has been designed in a manner that addresses the NSW Government’s intent of providing a **suitable buffer between mining and the CICs to facilitate coexistence**.”*

*“Overall, the Department considers that the **benefits of the Project outweigh its potential negative impacts**. The Department is also of the view that the Project represents the **best option for the successful co-existence of the coal mining, equine and viticulture industries in this location**.”*



The Need for the Project



The need for the Project

Malabar's commitment to the local community and our intention to proceed with the Project has been demonstrated through:

- ✓ Our ongoing support for community groups.
- ✓ Our progress with rehabilitation of the existing Maxwell Infrastructure site.
- ✓ Genuine engagement with stakeholders and the implementation of design measures to address stakeholder feedback.
- ✓ Employment of staff to take responsibility for delivery of the Project following approval.

The Project has attributes which are akin to a 'brownfield' project, in particular:

- ✓ Beneficial use of substantial existing Maxwell Infrastructure for coal handling and processing, water storage and reject emplacement.
- ✓ Access to existing rail and port infrastructure and available capacity.
- ✓ An established site access entry.
- ✓ Extensive geological and geotechnical data providing a high level of confidence in the resource.
- ✓ Extensive environmental monitoring programme that provides the basis for our robust Environmental Impact Statement and planned environmental management measures.

The need for the Project

There is a strong customer base for Maxwell Project product coal:

- ✓ 75% coking coal product – suitable for use in the steel manufacturing industry.
- ✓ In the near term, the largest customer for the Project's coking coal product is expected to be Japan, followed by South Korea.
- ✓ In the longer-term, India and South-East Asia would also be significant customers for the Project's coking coal product.

The Maxwell Project will assist in diversifying the local economy and provide much-needed jobs:

- ✓ Project's proposed coking coal product and underground mining techniques provide industry diversity in the Muswellbrook LGA.
- ✓ Local community and other stakeholder engagement identified the Project would create increased local employment options and benefit local businesses.

Our underground project is very different to previous proposals and significant design measures have been incorporated to address stakeholder feedback:

- ✓ Use of the Maxwell Infrastructure significantly lowers disturbance and initial capital cost compared to a 'greenfield' project.
- ✓ Malabar's recognition of stakeholder feedback has been reflected in its commitment to underground mining and other significant Project design measures.



THANK YOU