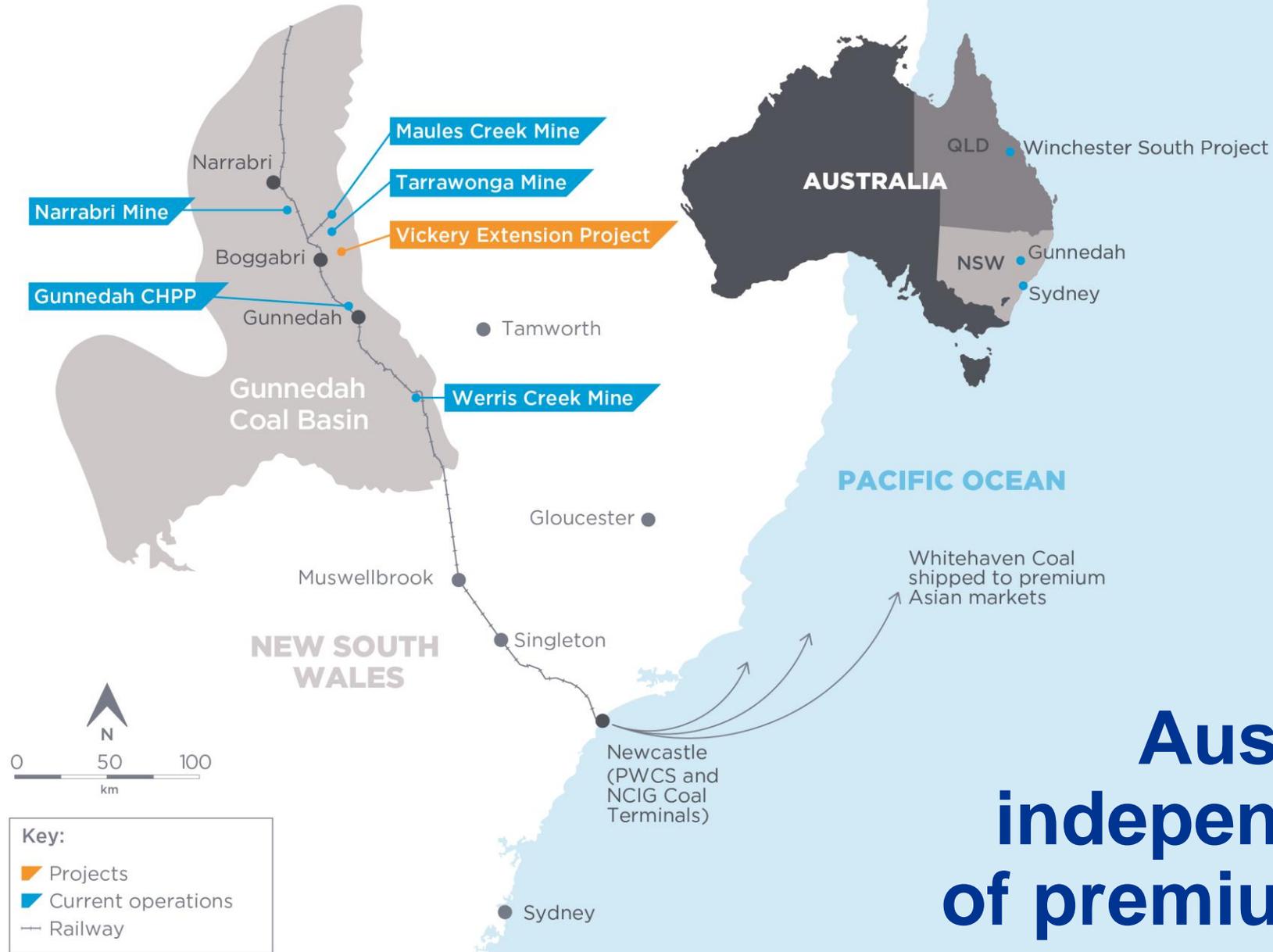


Vickery Extension Project

IPC Briefing

June 2020

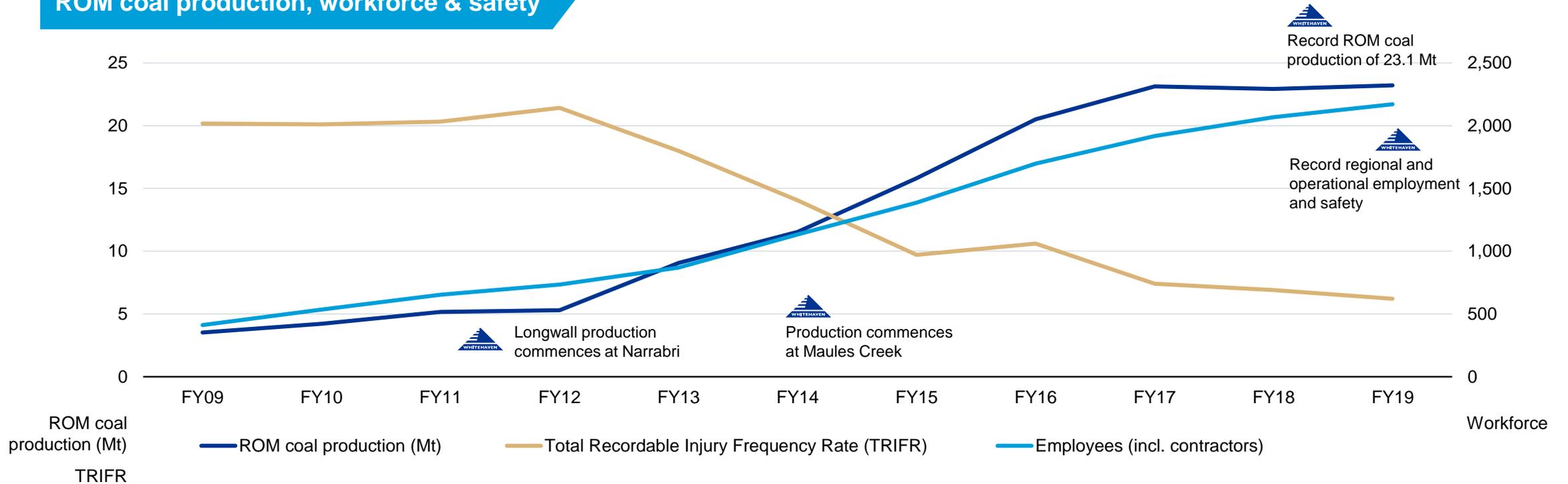




Australia's largest independent producer of premium-quality coal

Our growth journey so far

ROM coal production, workforce & safety



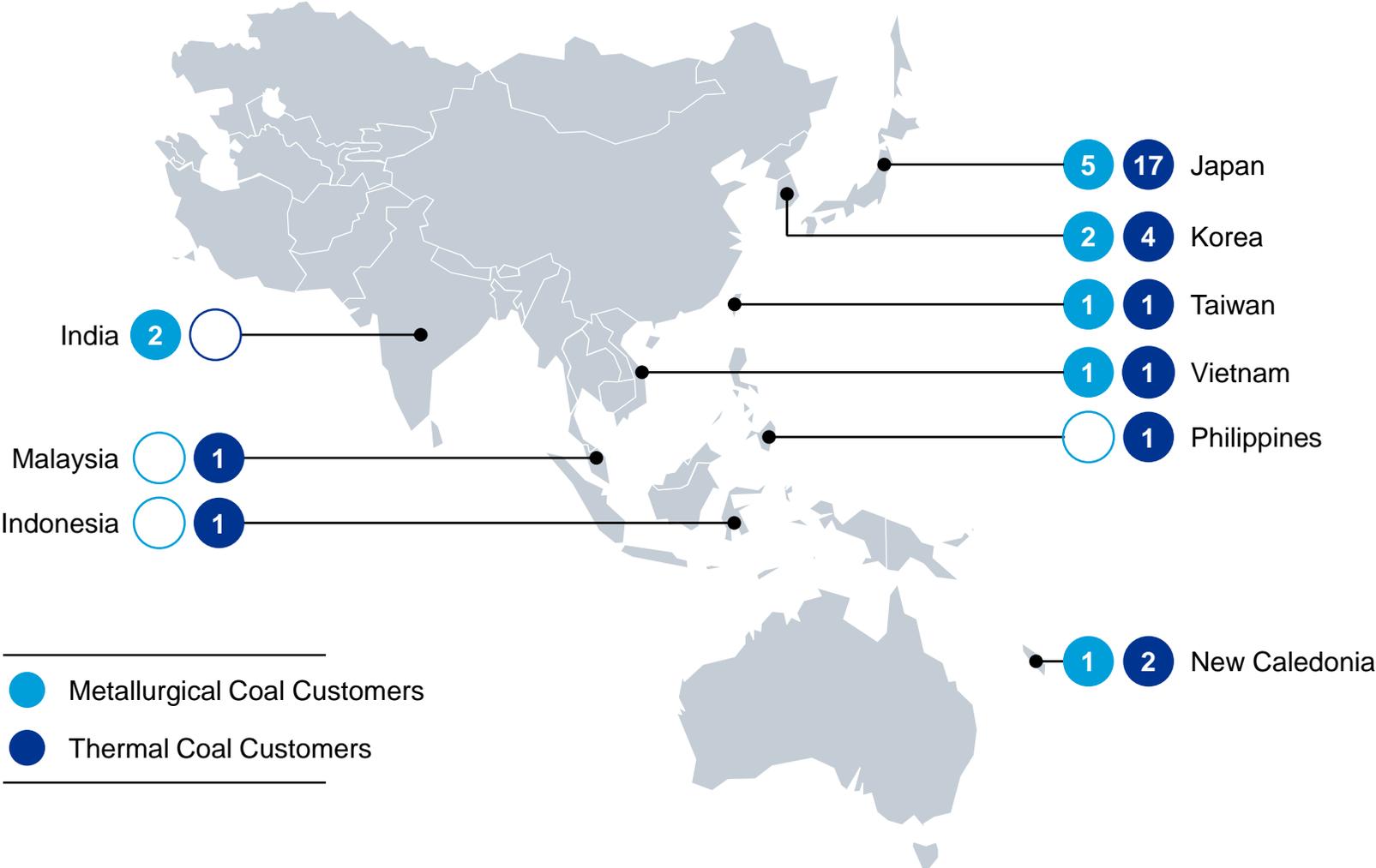
Construction and operation of 4 open cut mines

Construction of Narrabri

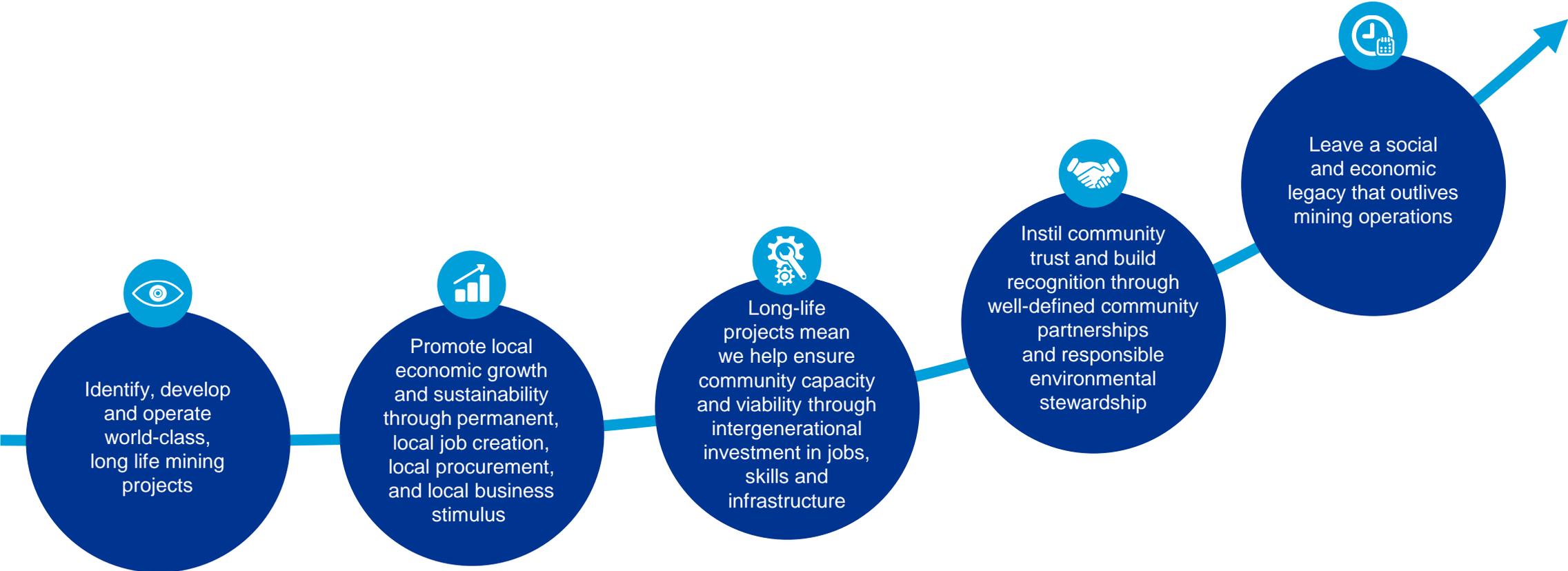
Construction of Maules Creek

Since FY15 Whitehaven has contributed more than \$1.7 billion to the local economy through salaries, wages and supplier payments, and paid more than \$1.1 billion in taxes and royalties

Our customer base is in Asia



Our community and social compact is key to our success



We are building a diverse local workforce

- We offer sustainable, long-term, rewarding career opportunities in regional areas
- We invest in skills development with a strong focus on creating pathways for young people who come from the areas around our operations
- Our long-life assets and the human resource-intensive nature of our business puts us in a strong position to continue to provide meaningful opportunities



75%
of >2,000-strong
workforce
based in
regional areas



9%
of workforce
identifies as
Indigenous



12.7%
female
participation in
our workforce

“Gunnedah has a proud history of mining and agriculture, working side by side for over 100 years. In our area, as you would be aware, at the present time, drought is having a devastating effect, not only on the farming community but also to some extent the small businesses. However, when I look around at your town, I’m aware that the mining sector is the one positive influence on the business activity at the moment. The main street is busy, the shop fronts are practically full and there’s a sense of business everywhere.”

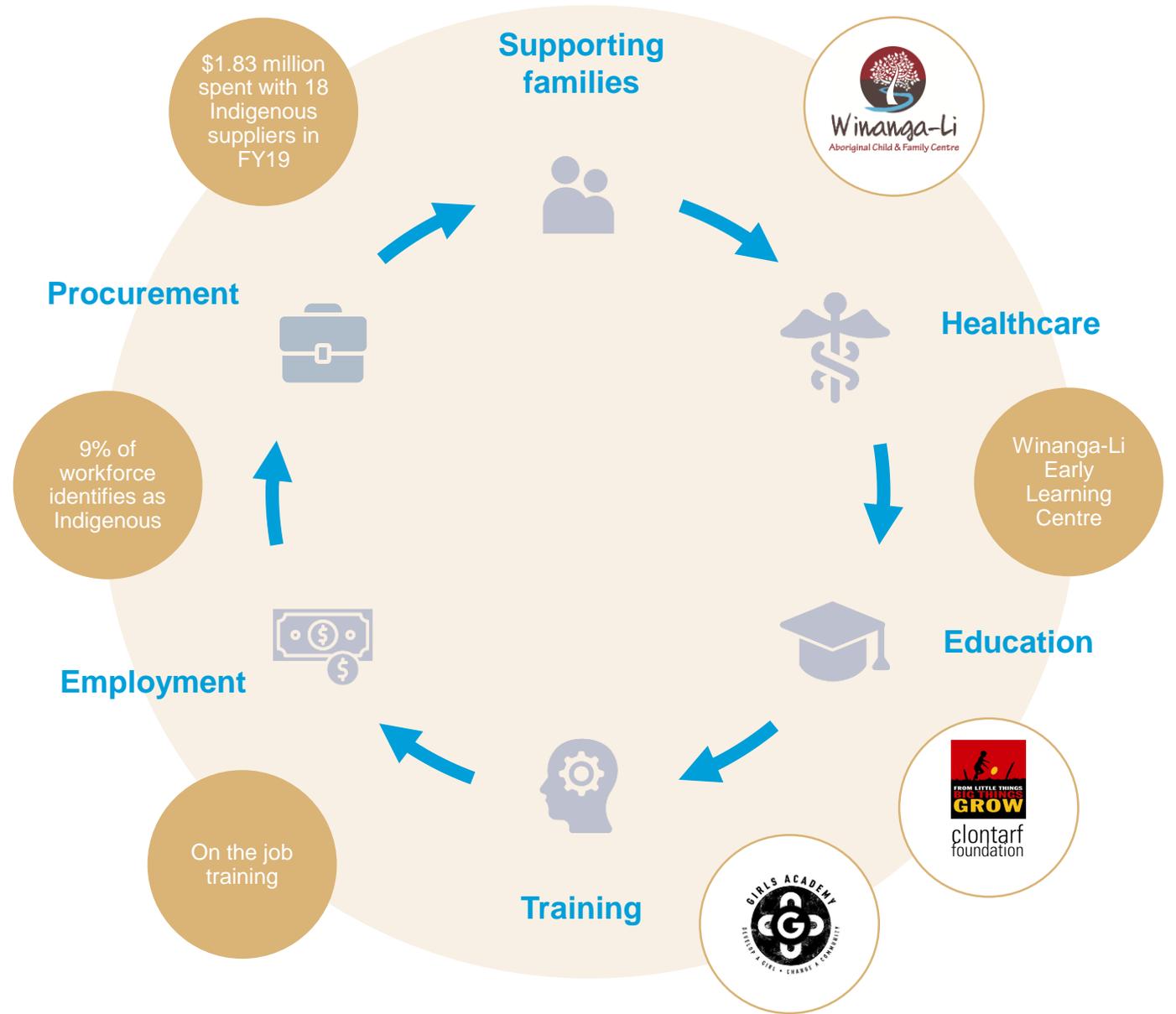
– Gae Swain, Former Gunnedah Shire Council Mayor (Initial IPC Public Hearing Submission)

A holistic approach to addressing Indigenous disadvantage

Empowering the local Indigenous community through intergenerational forms of support

“ I’ve got a boxing club. We do a lot with the kids, a lot with the Indigenous, and a lot with the troubled kids. Whitehaven’s one of the main contributors to our gym that keeps us going. Without Whitehaven we wouldn’t have the equipment we have and without them, we probably wouldn’t have a gym... As long as we’ve got mining for the future, we’re looking bright. ”

– David Syphers, Bill Syphers Footwear & Saddlery
(Comments to Whitehaven)



Our presence supports regional economic growth

- Over the last five years, we have:
 - invested over \$1.7 billion in the NSW North West in salaries, wages and supplier payments
 - paid more than \$1.1 billion in taxes and royalties
- Contributed \$41 million in payments to local councils between FY12–19
- Our small and medium sized local suppliers have industry-leading payment terms of 21 days or fewer

“We currently provide 17 full-time positions within our organisation and supply a substantial amount of work to sub-contractors local to the region. Our situation is not unique. We work with a broad spectrum of industries in the region and there are numerous local businesses that get a considerable portion of their income directly and indirectly from the mining industry that surrounds us.”

– Jack Campbell, Namoi Wastecorp

FY19 contribution



\$333.9 million
spent with
local suppliers



\$323.8 million
contributed to
federal, state and
local governments
in taxes and royalties



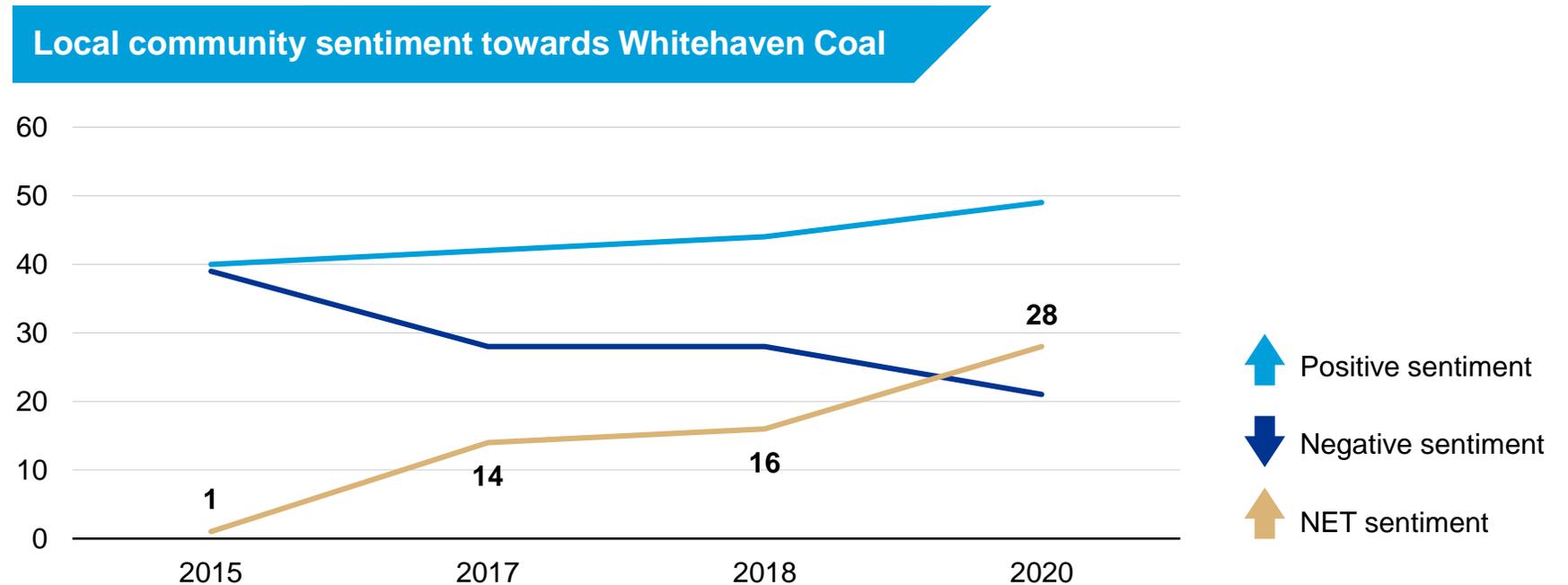
\$515,000
in community
partnerships
and donations



\$1.83 million
spent with
18 Indigenous
businesses

We are viewed positively in our region

Whitehaven's reputation in the Gunnedah, Narrabri, Tamworth and Liverpool Plains local government areas has improved over the last few years – representing a statistically significant decrease in negative sentiment.



Source: Independent quantitative research conducted by Newgate Research

Base: All participants who are aware of Whitehaven Coal: 2020 (n=561), Tamworth (n=134), Gunnedah (n=145), Narrabri (n=143), Liverpool Plains (n=139). 2018 (n=568), 2017 (n=565). 2015 (n=574).

Our local community supports mining and Vickery

Within our broader community, support for mining is strong:

- **55%** strongly or somewhat support coal mining, with only 21% opposed
- **62%** agree developing the local mining industry will help strengthen the local economy in the wake of Coronavirus
- **70%** strongly or somewhat support, or are neutral towards, the Vickery Extension Project – up from 64% in 2018
 - This represents a statistically significant decrease in opposition to the project

Vickery predominantly sits within the Gunnedah Local Government Area, where:

- **88%** agree mining jobs are essential for the local economy
- **71%** support or strongly support the coal mining industry
- **76%** strongly or somewhat support, or are neutral towards, the Vickery Extension Project

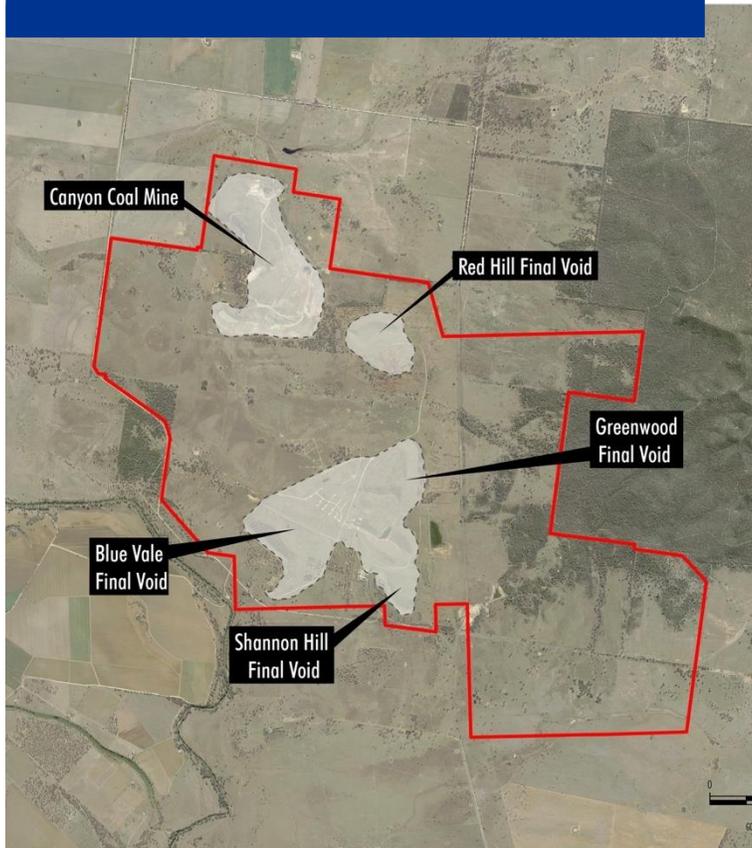
Source: Independent quantitative research conducted by Newgate Research

Base: All 2020 participants (n=600), Tamworth (n=150), Gunnedah (n=150), Narrabri (n=150), Liverpool Plains (n=150).

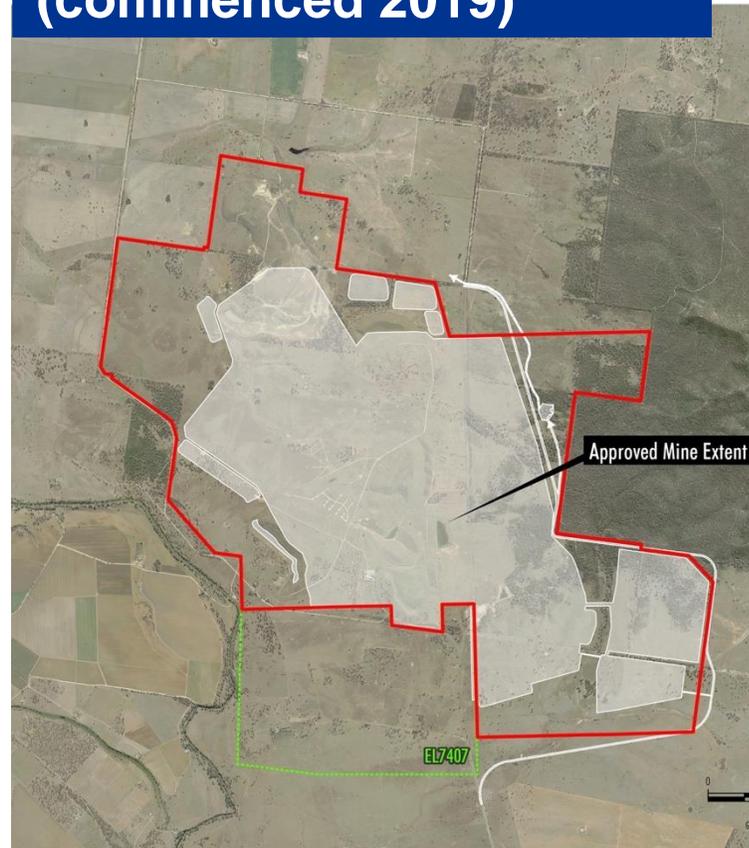
Key features of the Vickery Extension Project

Mining has historically occurred on the site

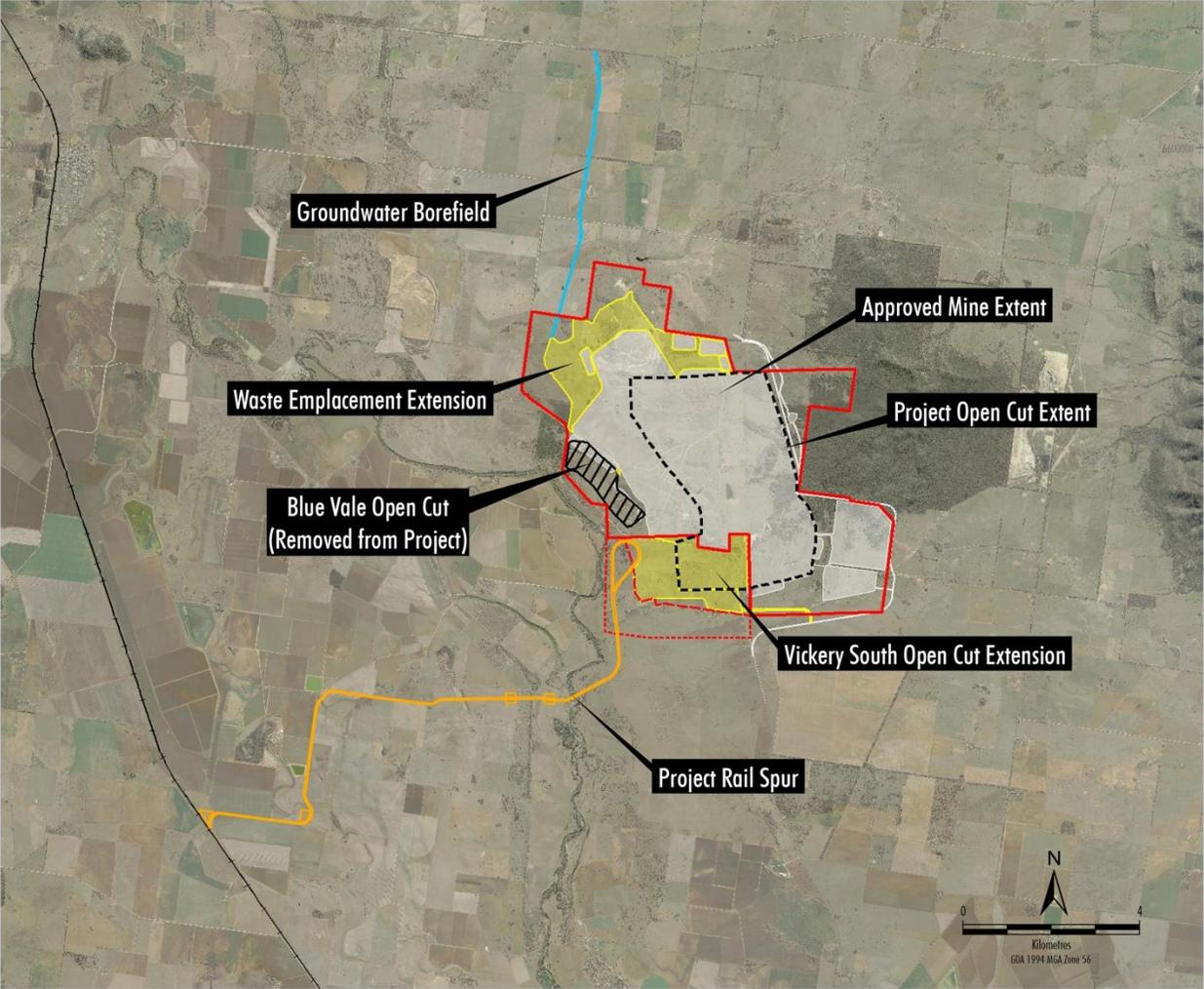
Historic mining



Approved mine (commenced 2019)



The Project builds on existing approval



- Yellow shading indicates mine extension areas
- Blue line represents borefield alignment
- Orange line represents rail spur alignment

Vickery Extension Project

- The Project is an extension to the already Approved Mine that results in superior social and economic benefits with limited additional environment impacts
- The Project site has been previously mined and used for agricultural purposes
- Majority metallurgical coal for steel-making with the balance high quality thermal coal
- Around 500 construction jobs and 450 operational jobs, and associated wages
- Significant capital expenditure (>\$600M), ongoing investment in the local region
- Around 170 new jobs in locally-based supplier businesses
(the NSW Government Division of Resources and Geoscience estimated “an additional 1800 indirect jobs in both mine and non-mine related services”)
- \$656 million in royalty payments to the NSW Government (NPV over the life of the Project)
- \$10.7 million in Planning Agreement payments directly to our local councils
- Compared to the Approved Mine:
 - Project rail line will take haul trucks off public roads
 - On-site CHPP will improve community amenity in Gunnedah following the eventual closure of existing CHPP
 - Increased annual production rate increases mining efficiency and reduces overall mine life (from 30 to 25 years)
 - Reduced number of final voids in the landscape (from 5 to 2)
 - Project borefield increases water security
 - No increase in the number of noise or air quality affected properties
 - Mining operations no closer to the Namoi River and the mining area does not interact with the Namoi River floodplain
 - \$500,000 for the restoration and preservation of the gardens of the Kurrumbede Homestead

Actions undertaken since Initial Stage of IPC

- Submissions Report considered EIS submissions and initial stage of IPC
 - More than 60% of EIS submissions were in support of the Project
 - More than 75% of submissions to the initial stage of the IPC were in support of the Project
- Additional Project layout, flood, groundwater, surface water, noise, economic and biodiversity modelling and analysis to address matters raised by:
 - IPC in its Issues Report
 - Regulatory agencies
 - DPIE's Independent Reviewers (groundwater, surface water, flooding, economics)
 - Community members
- Ongoing community engagement, including with local landowners and CCC members
- Independent quantitative and qualitative surveys of community sentiment
- Agreed Planning Agreement with the Gunnedah Shire Council

Key Assessment outcomes

- ✓ **Groundwater** – compliance with the ‘minimal impact’ criteria of the *Aquifer Interference Policy*
- ✓ **Surface water** – best practice water management system designed in accordance with Landcom ‘Blue Book’ and to maximise the diversion of clean runoff from undisturbed catchments around mining operations and into downstream watercourses
- ✓ **Water use** – licences to be held for all licensable take under the *Water Management Act 2000*
- ✓ **Flooding** – infrastructure complies with the objectives of the *Floodplain Management Plan*
- ✓ **Air quality** – compliance with *Approved Methods* criteria
- ✓ **Blasting** – compliance with human comfort and building damage criteria in the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration*
- ✓ **Noise** – compliance with *Noise Policy for Industry*, *Interim Construction Noise Guideline* and *Rail Infrastructure Noise Guideline* criteria or mitigation/acquisition upon request as per the *Voluntary Land Acquisition and Mitigation Policy* (1 property)
- ✓ **Biodiversity** – avoidance of threatened ecological communities and offsets for residual impacts as per the *Framework for Biodiversity Assessment* and *Biodiversity Conservation Act 2016*
- ✓ **Lighting** – compliance with the *Dark Sky Planning Guideline*
- ✓ **Economics** – assessment in accordance with the *Guidelines for the Economic Assessment of Mining and Coal Seam Gas Proposals*
- ✓ **Setting** – site is largely located within land for the Approved Mine
- ✓ **Greenhouse gas emissions** – the NSW *Net Zero Plan Stage 1: 2020–2030* states that “*mining will continue to be an important part of the economy into the future and it is important that the State’s action on climate change does not undermine those businesses and the jobs and communities they support*”

Whole of Government Report

Whole of Government Report

- *“The Department has assessed the development application, EIS, submissions, the Commission’s Issues Report, Whitehaven’s responses to submissions, the independent expert reports, and a range of additional information provided by Whitehaven, relevant government agencies and other stakeholders. The Department has also considered the objectives and relevant considerations under Section 4.15 of the EP&A Act ...”*
- *“... the Department considers that Whitehaven has designed the project in a manner that achieves a reasonable balance between maximising the recovery of a high quality coal resource of State significance and minimising the potential impacts on surrounding land users and the environment as far as is practicable”*
- *“The Department recognises that the project would provide major economic and social benefits for Gunnedah, Boggabri, Narrabri, the North West region and to NSW”*
- *“The Department has recommended a comprehensive and precautionary suite of conditions to ensure that the project complies with relevant criteria and standards”*
- *“The recommended conditions have been reviewed and accepted by the key NSW Government authorities, and the Department believes that the conditions reflect current best practice for the regulation of open cut coal mining projects”*
- *“On balance, the Department believes that the project's benefits outweigh its residual costs, and that is in the public interest and is approvable, subject to stringent conditions”*



Whitehaven accepts the Whole of Government Report’s recommended draft conditions of approval

Key issues

Water security

- Despite above average rainfall in 2020, North West NSW experienced severe drought in 2018 to 2019
- Proposed Project borefield significantly improves water security when licenced extraction from the Namoi is not available
- EIS site water balance modelling was based on historic climate data from the period 1889 to 2017:
 - Covers severe droughts equivalent or greater than those recently experienced
 - Covers periods where no water from the Namoi River was available for extraction
 - Results unchanged from EIS (given the dry periods already considered 1889 - 2017)
- When no water is available from the Namoi River external water demands rely on groundwater extraction
 - Drawdown from the maximum rate of groundwater extraction from the borefield is predicted to comply with the Aquifer Interference Policy and Water Sharing Plan criteria
 - Whitehaven holds alluvial groundwater licences – any borefield extraction will be licenced

“The independent surface water expert has advised that Whitehaven’s water balance modelling is reasonable and includes appropriate considerations of the effects of climate change variability, particularly during dry rainfall periods”

– Whole of Government Report

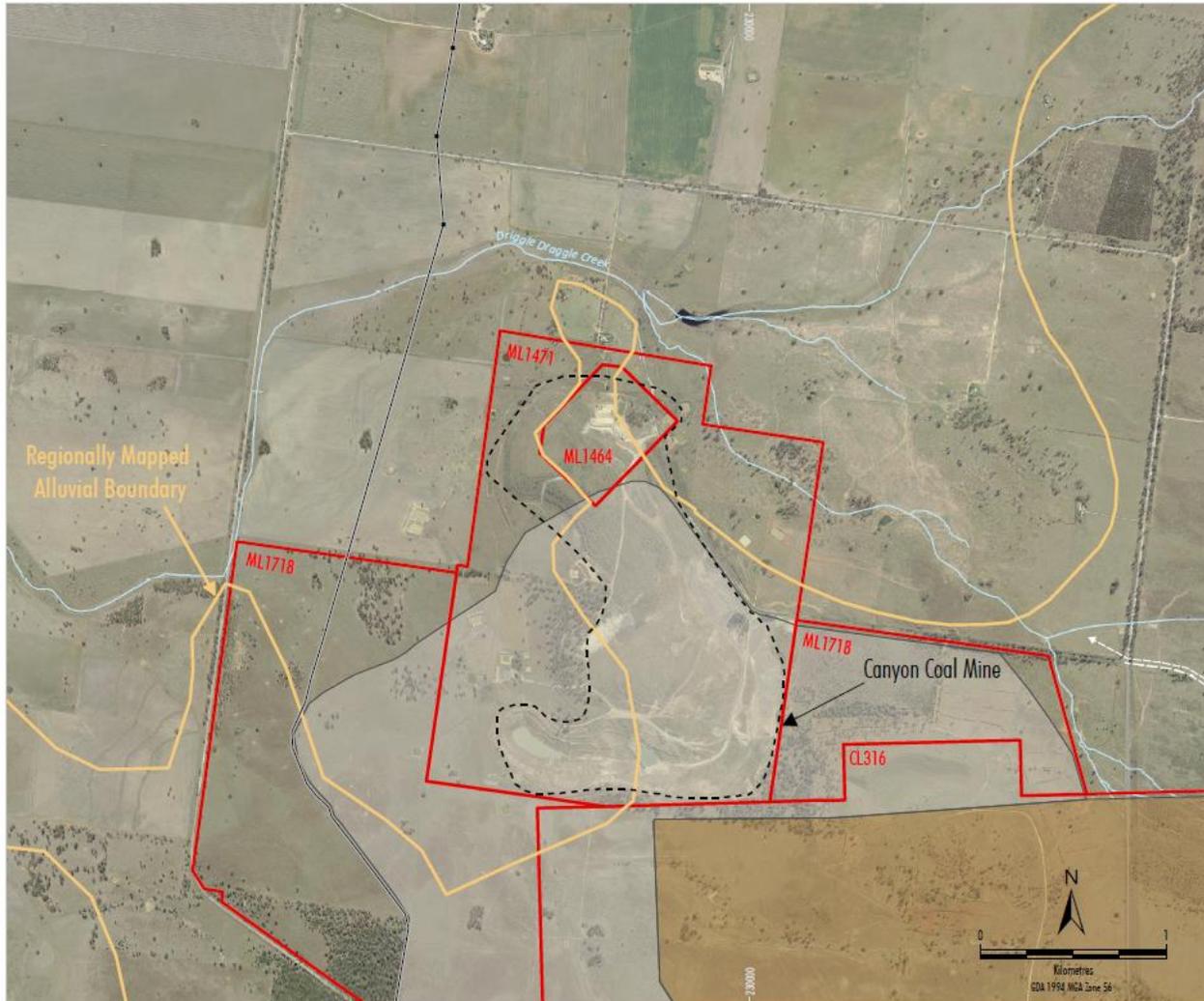
Groundwater

- Open cut wholly located within the Maules Creek Formation, surrounded by the 'highly productive' Namoi alluvium
- Compliance with the minimal impact criterion under the Aquifer Interference Policy (<2m drawdown) is predicted at all bores in the 'highly productive' alluvium during mining or post-mining – including cumulative effects of mining operations and extraction from Project borefield
- Whitehaven holds licences to account for groundwater inflow to the open cut
- Additional analysis undertaken to demonstrate the final void would behave as a groundwater sink and is considered to be superior to alternative final landforms when considering environmental impacts and economic feasibility
 - The Project is an improvement on the Approved Mine with fewer final voids
- Whitehaven holds sufficient licences to account for any residual water take associated with the groundwater recovery period following closure of the mine

“The independent expert, Mr Middlemiss, considers the groundwater modelling is fit for purpose for the assessment of the project and has recommended ongoing groundwater model development supported by a robust monitoring program”

– Whole of Government Report

Groundwater



LEGEND

- Mining Tenement Boundary (ML and CL)
- Exploration Licence Boundary (EL)
- Mining Lease Application (MLA)
- State Forest
- Railway
- Regionally Mapped Alluvial Boundary
- Historic Mining Area

Project Components

- Indicative Extent of Open Cut
- Indicative Extent of Out of Pit Waste Rock Emplacement

Disturbance and biodiversity offsets

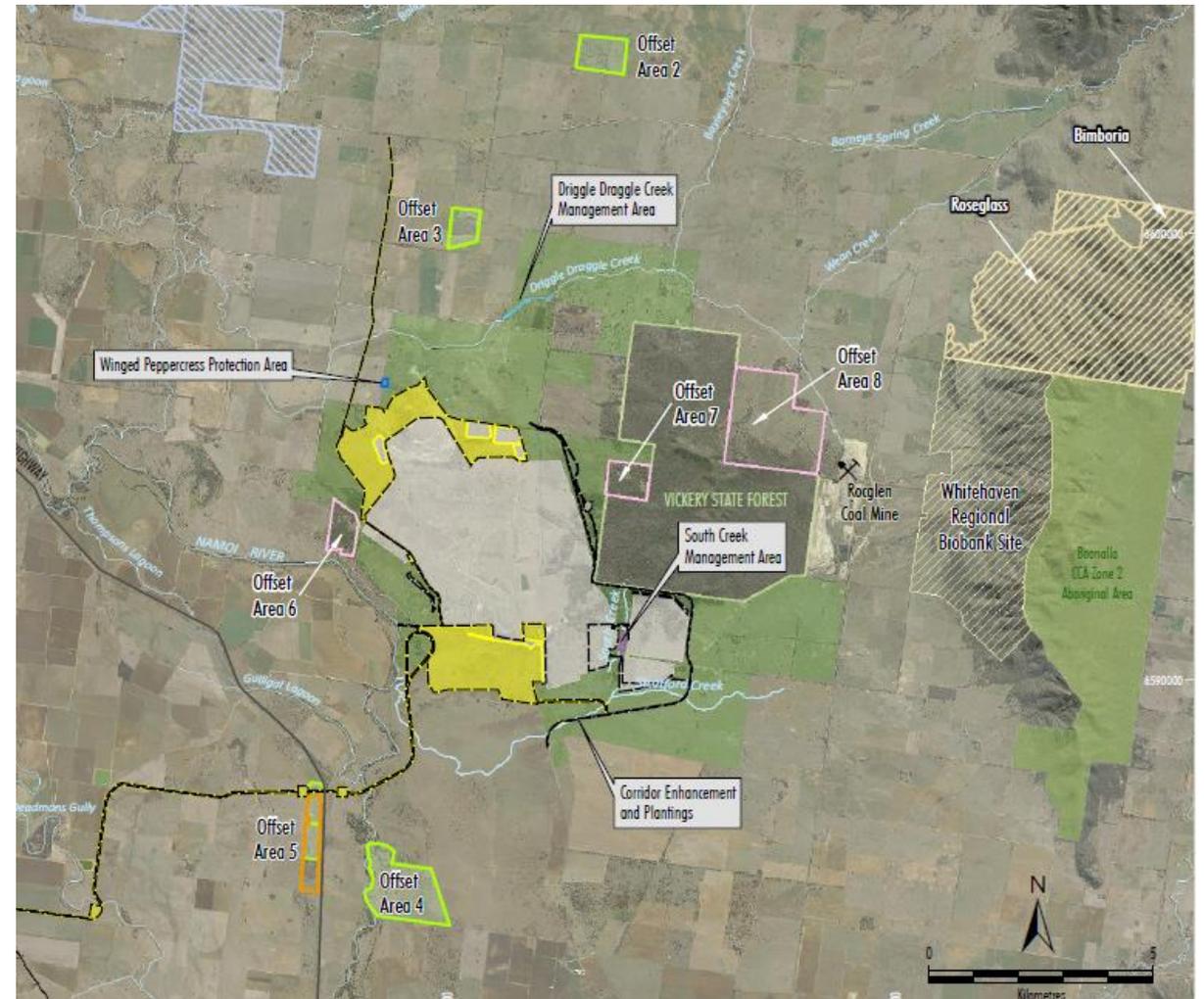
- The Project area comprises land previously used for mining activities and previously cleared for agriculture (e.g. grazing)
- Disturbance comprises a combination of the Approved Mine and the extension areas – the extension areas avoid disturbance of threatened ecological communities

“Overall, the Department and BCD consider that the Project has been designed to avoid, mitigate and manage biodiversity impacts where practicable, and that the required ecosystem and species credits could be obtained and that the retirement of these credits would sufficiently compensate for residual biodiversity impacts in accordance with applicable government policies”

– Whole of Government Report

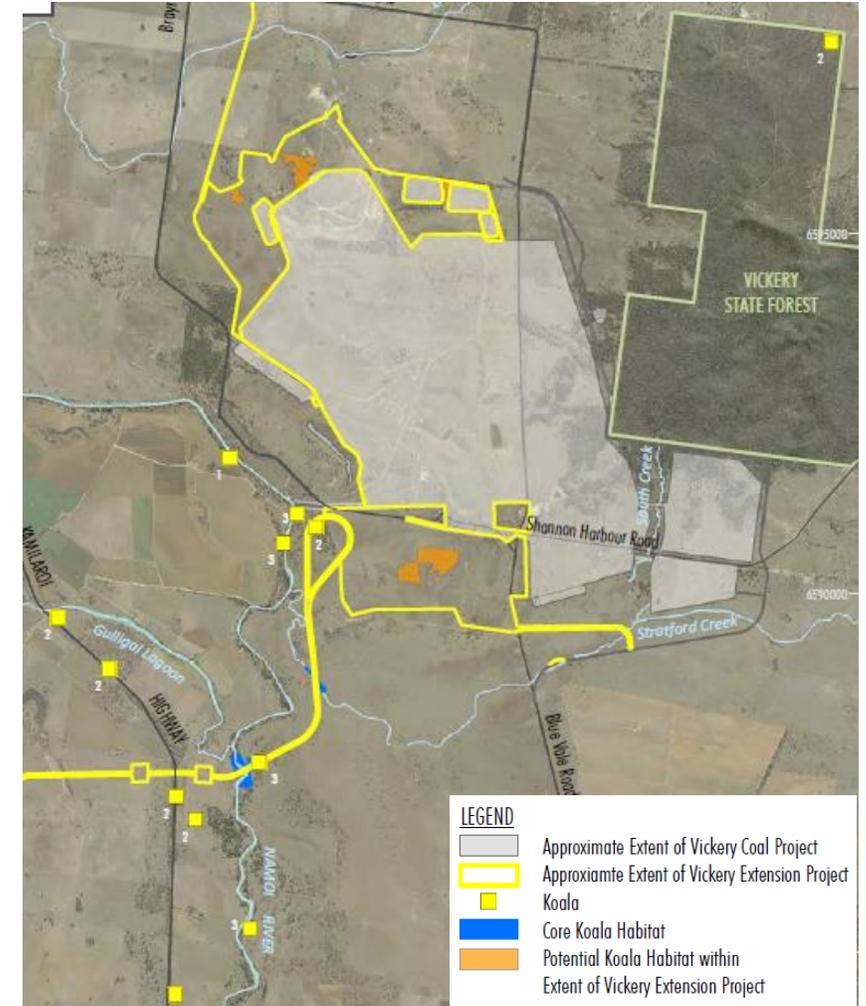
Disturbance and biodiversity offsets

- Approved Mine footprint
 - Whitehaven already owns the offset properties to be secured for the Approved Mine footprint
- Extension areas
 - Offset 'credit' liability calculated under the *NSW Framework for Biodiversity Assessment*
 - Credits to be 'retired' under mechanisms allowed in the *Biodiversity Conservation Act 2016*
 - Whitehaven already owns properties that can be used to satisfy a portion of the Project extension area credit liability
- Draft conditions require security of offset properties for the Project (Approved Mine plus extension areas) within 2 years



Koala management

- Surveys completed to identify 'core' and 'potential' koala habitat
- The Project avoids koala habitat as far as possible – including locating the rail corridor to avoid mature trees
- Potential impacts to the koala will be offset in accordance with Government legislation
- A draft Koala Plan of Management has been prepared and provided to DPIE
- It outlines additional management measures for koala habitat
- This includes restoration of River Red Gum Riparian Tall Woodland (core habitat) and planting koala feed trees within the rail corridor following construction of the rail



Kurrumbede Homestead

- *Kurrumbede* Homestead has associations with the poet Dorothea Mackellar
- Property previously owned by Coal Works, acquired by Whitehaven as part of the 'Vickery South' acquisition
- EIS Heritage Assessment recognises possibility the site is state significant – however, it is not currently listed on any State or local heritage register.
- Whitehaven's commitments with respect to *Kurrumbede* for the Project include:
 - Preservation of the *Kurrumbede* Homestead
 - \$500,000 committed to restore and preserve the gardens
 - Partnership with Dorothea Mackellar Memorial Society
 - Community access to be provided with procedures to be outlined in the Heritage Management Plan
 - No direct disturbance and indirect impacts from blasting managed via blast criteria to avoid building damage
 - Ongoing monitoring and maintenance over the life of the Project and Heritage Management Plan

“*The Department and NSW Heritage Council supports these measures [Kurrumbede Homestead management measures proposed in EIS], including the preparation of a Heritage Management Plan for the Project, in consultation with Heritage NSW, GSC and the Dorothea Mackellar Memorial Society*”

– Whole of Government Report

Employment

- The Project would result in direct employment of around 500 construction jobs and 450 operational jobs
- These job numbers are based on Whitehaven's experience at Maules Creek which currently has > 450 employees
- In addition the Project's direct employment and expenditure would provide flow-on employment opportunities
- Experience at Maules Creek supports that the Project would require 450 FTE

“ The Project would generate a range of social benefits for the local and regional community through additional jobs and economic growth in the regional economy. The Department therefore considers that the employment projections are reasonable and provide an adequate basis for the assessment of the merits of the project. ”

– Whole of Government Report

Council Planning Agreements

- **Approved mine**
 - Planning agreements with NSC and GSC agreed and reflected in Development Consent conditions
 - Combined total of \$7.5M based on 70:30 split (GSC:NSC) as majority of the site is within Gunnedah Shire
 - The basis for the offer was ROM tonnes mined (135 Mt)
- **Extension Project**
 - Revised offer of \$10.7M – 43% higher than Approved mine despite only 24% increase in ROM coal
 - 70:30 split maintained, as all material additional capital works (CHPP and rail) are located within Gunnedah Shire
 - **Whitehaven and GSC have agreed to terms**
 - Whitehaven's offer to NSC remains open

“ The Department considers Whitehaven’s offer is reasonable, consistent with the offer made by Whitehaven for the Approved Project and is also well in excess of the 1% levy cap used to guide development contributions to Councils under Section 7.12 of the EP&A Act and under NSC’s contributions plan. ”

– Whole of Government Report

Demand for Project coal

- Whitehaven's investment decisions are informed by independent coal demand forecasts that are benchmarked against the scenarios outlined by the International Energy Agency
- The forecasts indicate demand for both SSCC and thermal coal will continue over the life of the Project – particularly for high quality and low cost coal products for our customers in Asia
- This is consistent with the International Energy Agency's Stated Policies and Sustainable Development Scenarios
- Our experience is that customers are seeking high quality coal products to assist in meeting their emissions targets
- Vickery's thermal coal has high calorific value and low sulphur and ash contents – resulting in lower greenhouse gas emissions per unit of energy produced compared to lower quality thermal coal
- Vickery's SSCC coal has low ash content – resulting in higher blast furnace efficiency compared to SSCC with higher ash contents
- Our analysis indicates demand for Vickery coal across our Asian customer base will continue over the life of the Project

“ The Department notes that the majority of the coal is of metallurgical quality and that the thermal coal quality is a high calorific/ low ash/ low sulphur coal which is in stronger demand globally compared to lower quality (high ash/ high sulphur) coal. ”

– Whole of Government Report

Climate change

- Scope 1 and 2:
 - Low fugitive emissions
 - Reasonable steps will be implemented to reduce on-site diesel and electricity consumption
 - Reporting under the National Greenhouse and Energy Reporting Scheme
- Scope 3:
 - Destination countries for VEP coal have submitted NDCs under the Paris Agreement (plus Taiwan, which has submitted an INDC) and it is the responsibility of these countries to meet their NDCs
 - The ‘carbon budget’ approach is inconsistent with the approach adopted by the Paris Agreement for achieving its goal, namely NDCs, and would result in double counting – an outcome that the Paris Agreement seeks to avoid
- Australian policy setting:
 - Australia is a signatory to the Paris Agreement and has set its NDC of reducing GHG emissions by 26 to 28 per cent below 2005 levels by 2030 – the Federal Government has implemented a suite of measures to achieve this
 - NSW Net Zero Plan Stage 1: 2020–2030 says that State’s action on climate change should not undermine \$36 billion mining sector and the jobs and communities it supports

“Overall, the Department considers that the GHG emissions for the Project have been adequately considered and that, with the Department’s recommended conditions, are acceptable when weighed against the relevant climate change policy framework, objects of the EP&A Act (including the principles of Ecologically Sustainable Development) and socio-economic benefits of the Project.”

– Whole of Government Report

Intra- and intergenerational equity

- Four generations currently living and those born in 2020 to 2026 will benefit from the Project's employment and expenditure
- A further generation will be born (from 2026 onwards) during the Project life and will benefit indirectly from the economic benefits of the Project, including social welfare, education, healthcare, and infrastructure paid for with royalties and taxes from the mine
- The significant positive net benefits of the VEP are calculated net of environmental costs and externalities:
 - This includes costs such as greenhouse gas emissions, rehabilitation of the site, mine closure and post-mining impacts
- The costs of rehabilitation and mine closure are borne by Whitehaven and security of rehabilitation costs is provided by way of a mine closure bond held by the Government
- Post-mining:
 - Scope 1, 2 and 3 greenhouse gas emissions will cease
 - No bores in the highly productive alluvium with >2m drawdown and licences would be retired
 - VEP final landform is an improvement in comparison to the VCP (reduced number of voids)
 - Portions of the site will be reinstated to agricultural land (i.e. areas not rehabilitated to native vegetation or the final void)
 - Biodiversity offsets would maintain or improve biodiversity values in the long-term

“ Intergenerational equity has been addressed through maximising efficiency and coal resource recovery and developing environmental management measures which are aimed at ensuring the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.”

– Whole of Government Report

Questions



WHITEHAVEN COAL

Thank you

www.whitehavencoal.com.au

