# KOALAS OR COAL MINES

How the federal government can help save Australia's most iconic species



### Acknowledgement

We acknowledge the stolen lands of the Traditional Custodians of the lands across so-called Australia on which we live, work, and gather. We pay our respects to their Elders past and present. We recognise the deep spiritual connection and enduring relationship that Aboriginal and Torres Strait Islander peoples have with Country, and that sovereignty was never ceded.

We honour the significance of the koala to many communities across the continent. Koalas are totems of many Aboriginal nations, including Gumbaynggirr of the Mid North Coast, Birpai of Port Macquarie, and Awabakal of the Hunter region. We acknowledge the Traditional Custodians of the land who have cared for the koala and its habitat for countless generations.

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# Endorsed by:

















### **Definitions/abbreviations**

ACT - Australian Capital Territory

BCA - NSW Biodiversity and Conservation Act

Conservation status - Globally recognised system for classifying species into categories of risk of extinction

DCCEEW - Department of Climate Change, Energy, the Environment and Water (Australian federal environment department)

DESI - Department of Environment, Science, and Innovation (QLD state environment department)

EIS - Environmental Impact Statement

**EPBC Act** - Environment Protection and Biodiversity Conservation Act 1999, national environmental and threatened species law

 $\mathsf{EN}$  - Endangered; conservation status for species facing a very high risk of extinction in the wild in the near future

GHG - Greenhouse gases

Ha - Hectares

Kms - Kilometers

Listed - Refers to listing of species or vegetation communities (EVCs) under state environment legislation or federal environment legislation

LOM - Life of mine

Mt CO2-e - Million tonnes of carbon dioxide equivalent

Mtpa - Million tonnes per annum

NC Act - QLD Nature Conservation Act (1992)

NGER - National Greenhouse and Energy Reporting Scheme

NSW - New South Wales

NSW DCCEEW - NSW Department of Climate Change, Energy, the Environment and Water (NSW state environment department)

NSW EPA - New South Wales Environmental Protection Authority

QLD - Queensland

ROM - Run of mine, ore in its natural, unprocessed state

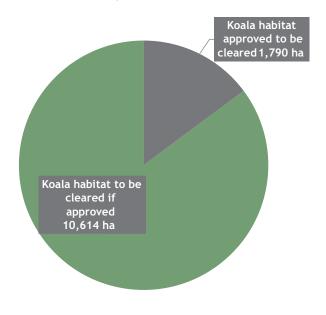
## **Executive summary**

# Key findings:

- 24 proposed new coal mines threaten to clear important koala habitat, including 22 projects that are currently being assessed under the EPBC Act and seeking approval from the Albanese government.
- 10,614 hectares of koala habitat could be cleared if the 24 proposed coal projects are approved by the federal government. That's just over 106 square kms, over 8,845 Suncorp stadium sized sporting fields, or over 70 times the size of Brisbane's CBD.
- The proposed 24 coal projects would release an estimated 7.7 billion tonnes of climate pollution, more than Australia's total emissions over the last decade (approximately 5.1 billion tonnes of CO<sub>2</sub>e) and equivalent to the annual emissions of about 1.6 billion cars.<sup>1,2</sup>



• The Albanese government has approved four new coal mining projects to clear over 1,790 hectares of koala habitat since they took office in 2022. These projects will produce more than 630 million tonnes of climate pollution.



• The three coal companies responsible for the biggest impacts on koalas are Whitehaven Coal (7,079 ha), Glencore (1,223 ha), and BHP / BMA (1,169 ha).





of koala habitat would be cleared

This is over 106 square kms



Equivalent to around 8,845 Suncorp stadium sized sporting fields



Or **70** times the size of Brisbane's CBD



This is equivalent to the annual emissions of about

# 1.6 billion cars.

Currently there is estimated to be around 1.4 billion vehicles globally. The koala is one of Australia's most iconic native animals. The gum leaf eating, tree climbing, pouched marsupial is the quintessential animal symbol of the Australian bush, known and loved all over the world. Yet this iconic species is under serious threat.

Australia is the global leader in mammal extinctions<sup>3</sup>. More mammals have become extinct in Australia in recent centuries than any other continent on Earth. The primary drivers that have driven Australia's extinction crisis are loss of habitat through land clearing<sup>4</sup>, and increased frequency and intensity of extreme weather events like bushfires and flooding due to climate change<sup>5</sup>.

Australia's koala populations face a very real prospect of extinction due to habitat destruction and the impacts of climate change. Koala numbers across Queensland and NSW have been in decline for decades, and despite the threats to this much-loved marsupial being well understood and studied, the situation in recent years has gone from bad to worse.

The koala populations of Queensland, New South Wales and the Australian Capital Territory were listed as endangered on 12 February 2022, following the devastating 2019/2020 Black Summer bushfires. An animal that is endangered is close to extinction, meaning there aren't many of that type of animal left in the world. Even before the devastating bushfires, a 2020 NSW Parliamentary inquiry found that without urgent government intervention, koalas in NSW could be extinct in the wild by as early as 2050.<sup>6</sup>

Coal from mines in NSW and Queensland is mostly exported and burned overseas, creating pollution that is heating the Earth's atmosphere and threatening ecosystems and species the world over. No matter where pollution from Australia's coal is produced, the impacts on Australia's natural environments are felt. Some of the threats to koalas from climate change include increased droughts, heatwaves and bushfires, loss of important food trees, shrinking habitat and lower nutritional value in leaves due to carbon pollution.

Not only are proposed new coal mines in Queensland and NSW making climate change threats to koalas worse, proposed coal mines will directly clear important habitat for koalas, leading to the direct, sudden, and permanent loss of woodlands and forests that koalas depend on.

This report examines the impacts on koala habitat from proposed new coal mining projects in Queensland and New South Wales. The report quantifies the total area of koala habitat proposed to be cleared by proposed coal mining projects.

The report also quantifies the total area of koala habitat clearing that has been locked in by the Albanese government's approval of new coal mining projects since 2022. The federal environment minister currently has the authority and power to reject new proposed coal mines and expansions on the basis of 'unacceptable impacts' to the koala, and other threatened species. Given the precarious future facing Australia's most iconic species, the federal environment minister can, and must act to protect the koala from the impacts of coal mines.

#### This report recommends the federal government:

- Reject approvals for new coal mines and expansions that impact koalas and other threatened species, to address the threat of extinction from habitat destruction and climate change;
- 2. Put in place an immediate moratorium on the clearing of any further koala habitat for coal projects and review environmental approvals of projects approved to impact on koala habitat in the last two years;
- 3. End the reliance on biodiversity offsets that enable destruction of critical koala and other threatened species habitat, such as the greater glider;
- 4. Commit to a rapid phase out of fossil fuels, to safeguard endangered species like the koala from the devastating impacts of climate collapse;
- 5. Enact strong new nature laws that effectively protect threatened species and their habitat as well as comprehensively assess the climate impacts of proposed projects. Climate change, fuelled by coal and gas projects approved under the current Act, is a key threat to Australia's wildlife and habitat.

The figures listed in the report are taken from coal company documents and could be subject to changes as new application documents are published throughout ongoing assessment processes. For example, some projects listed in the report such as Blackwater North, and Blackwater South are yet to produce complete Environmental Impact Statements that may publish updated figures on the extent of impacts to koala habitat. This report will be updated as new information or new figures from any new documents or statements are published by project proponents.

## COAL MINE CASE STUDIES



Yancoal's Moolarben OC3 Expansion Koala habitat to be cleared (ha): 113 Lifetime Coal Combustion emissions (Mt CO<sub>2</sub>-e): 83

Yancoal's Moolarben coal mine is an existing thermal coal mine located in mid-Western NSW near the town of Ulan, on Wiradjuri Country. Yancoal is currently seeking state and federal approval for a proposed expansion of the mine, Moolarben OC3, which would extract an additional 40 million tonnes of thermal coal until 2034. The mine expansion is set to clear over 113 ha of endangered koala habitat and extends close to the edge of one of the oldest conservation reserves in NSW, the Munghorn Gap Nature Reserve. The NSW government Environment and Heritage Group's submission on the project says the coal mine expansion threatens koala habitat that is 'critical to the survival of the species' and "would significantly contribute" to four other animal species and one critically endangered ecological community becoming extinct in NSW.<sup>7</sup> Yancoal has acknowledged the project would displace a "critical" koala population.<sup>8</sup>

**Species likely to be impacted:** Large-eared pied bat, eastern cave bat, broad-headed snake, regent honeyeater, pin-tailed legless lizard, koala, swift parrot, squirrel glider

Moolarben coal mine 2013 | Credit Max Phillips

# APPROVED September 2024



### Whitehaven Coal's Narrabri Stage 3 Extension Project Koala habitat to be cleared (ha): 515 Lifetime Coal Combustion emissions (Mt CO<sub>2</sub>-e): 471

Whitehaven Coal's Narrabri Underground Stage 3 Extension project is seeking to extend the life of its existing Narrabri thermal coal mine for another 13 years through to 2044. The mine is located on Gomeroi Country, near Narrabri NSW in the Gunnedah coal field adjacent to the Pilliga state forest. The expansion threatens 500ha of koala habitat. The Narrabri coal expansion will directly emit an average of 1.5m tonnes of CO2-equivalent a year<sup>9</sup>, making it the dirtiest thermal coal mine in Australia<sup>10</sup> (and in the top 4 most polluting coal mines in Australia).

Species likely to be impacted: Corben's Long-eared Bat, Pilliga mouse, koala



# GLENCORE

Glencore's Hail Creek Eastern Margin Extension Project Koala habitat to be cleared (ha): 597 Lifetime Coal Combustion emissions (Mt CO<sub>2</sub>-e): 69

Glencore are seeking to expand their Hail Creek mine on Widdi Country, clearing nearly 600ha of habitat for koala and other threatened species. Homevale National Park is located immediately east of the Project area. The existing Hail Creek Open Cut coal mine is one of the most polluting methane emitting mines on the planet. It is estimated to emit 20% of Australia's methane emissions from coal mining<sup>11</sup>, while accounting for just 1% of Australian coal production.

**Species likely to be impacted:** Koala, squatter pigeon, southern and central greater glider, glossy-black cockatoo, short-beaked Echidna

Glencore's Hail creek coal mine, the forest in the foreground is proposed to be cleared for the expansion of the 'Exevale pit'

# APPROVED January 2025

## VITRINITE BRIGHTER COAL

### Vitrinite's Vulcan South Koala habitat to be cleared (ha): 1167 ha Lifetime Coal Combustion emissions (Mt CO2-e): 23

Vitrinite's Vulcan South mine on Barada Barna Country is proposed to clear 770ha of important koala habitat, and several other threatened species. The project would extract 1.9 million tonnes of coal for eight years. Almost all the project area is currently native bushland, in a largely fragmented area. Vitrinite is using environmental offsets to justify the project, which will do nothing to protect the koalas directly impacted by the proposed project. The Vulcan South project is directly adjacent to Vitrinite's existing Vulcan coal mine which is approved to clear 200 hectares of koala habitat. Vitrinite has a poor environmental compliance record at its Vulcan mine. The company was issued with an Environmental Protection Order by the Queensland government for releasing polluted water into creeks<sup>12</sup> and has breached its Commonwealth environmental conditions by clearing land outside of its approved project area<sup>13</sup>.

**Species likely to be impacted:** Koala, greater glider, squatter pigeon, northern quoll, ornamental snake, Australian painted snipe, glossy black cockatoo

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# **MNEWS**

In November 2024 the <u>ABC revealed that Vitrinite had started mining</u> <u>coal and clearing koala habitat at its proposed Vulcan South mine before</u> <u>receiving environmental approval</u>.<sup>14</sup> The Environment Department officials told a Senate hearing they have opened a criminal investigation into whether Vitrinite cleared koala habitat and started mining coal without holding environmental approvals - before this investigation was completed the Federal Environment Minister approved the Vulcan South coal mine.

Koala habitat proposed to be cleared for Vitrinite's Vulcan South open cut coal mine

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### Whitehaven Coal's Blackwater South Koala habitat to be cleared (ha): 6885 Lifetime Coal Combustion emissions (Mt CO<sub>2</sub>-e): 1,574

Whitehaven Coal's proposed Blackwater South coal mine is on Ghungalu Country near Blackwater in Central QLD. The project has the biggest planned impacts to koala habitat of all proposed coal mines in Australia. If approved, more than 6500 hectares of koala habitat will be cleared<sup>15</sup>, more than 3,200 MCG sized football fields. Whitehaven plans to mine up to 10 million tonnes of coal a year for 90 years, until the year 2112.

**Species likely to be impacted:** Greater glider, northern quoll, star finch, koala, ornamental snake, Yakka skink, southern snapping turtle, Fitzroy River turtle

Koala habitat on the site of Whitehaven Coal's proposed Blackwater South Coal mine, 6500 hectares of Koala habitat is proposed to be cleared for the project, the biggest planned impacts to koala habitat of all proposed coal mines in Australia.

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BHP Mitsubishi Alliance's Saraji East Koala habitat to be cleared (ha): 1,160 Total lifetime emissions if approved (Mt CO<sub>2</sub>-e): 442

BHP Mitsubishi Alliance's Saraji East coal mine, located 80 km southeast of Emerald on Barada Barna Country, will clear 1160 ha of koala habitat<sup>16</sup>, equivalent to over 500 MCG sized football fields. Project EIS documents state that koalas may be killed or injured during vegetation clearing and may be struck by mining vehicles<sup>17</sup>. The project also plans to clear 748 hectares of habitat for the greater glider.<sup>18</sup> BMA's surveys recorded 18 greater gliders within and directly adjacent to the project disturbance footprint.<sup>19</sup> Greater gliders need large old trees with hollows for denning, the coal mine will clear this irreplaceable habitat. The mine proposes to dig up 11 million tonnes of coal each year until 2045.

**Species likely to be impacted:** Ornamental snake, Dunmall's snake, Brigalow scaly-foot, squatter pigeon, Australian painted snipe, little pied bat, koala, short-beaked echidna, greater glider

Peak Downs and Saraji coal mine

### Peabody **(Francoal** Radigital American

Peabody and Yancoal's Middlemount Coal Mine - Southern Open Cut Koala habitat to be cleared (ha): 183 Lifetime Coal Combustion emissions (Mt CO<sub>2</sub>-e): 53

Peabody and Yancoal's Middlemount coal mine, near Middlemount in Central Queensland is on Barada Barna Country. The project would extend the life of the mine until 2044 and extract an additional 112 million tonnes of coal. The project is seeking approval to dig up and divert a section of Roper creek that supports high quality riparian vegetation, including many large old trees growing on the banks of the creek that are used by koala and greater gliders. The extension of the Middlemount mine open cut pit would remove this section of Roper Creek and the woodlands lining its banks. The project seeks to clear over 60 hectares of koala and greater glider habitat. The presence of koalas and greater gliders utilising this important riparian habitat was recorded on surveys conducted by the coal company<sup>20</sup>. Surveys also noted the woodland along the creek is dominated by Queensland Blue gum, a preferred food source for koalas, and supports hollow bearing trees that provide important denning habitat for greater gliders.<sup>21</sup>

Species likely to be impacted: Koala, greater glider, squatter pigeon

Koala habitat on Roper Creek planned to be cleared for Yancoal's Middlemount coal mine expansion

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# WITHDRAWN February 2025



### Magnetic South's Walton Koala habitat to be cleared (ha): 956 Lifetime Coal Combustion emissions (Mt CO2-e): 38

The Walton coal project is a new coal mine proposal near the town of Dingo on Ghungalu Country, 150 kms west of Rockhampton. The project is seeking to mine 1.95 million tonnes of coal a year for 10 years. The proposed coal mine site is surrounded by National Parks and state forest. The site borders Wallaby Lane nature refuge which would be impacted by one of the open cut pits. Wallaby Lane was established as a wildlife corridor linking Walton state forest to Taunton National Park. The area is home to a population of endangered Bridled Nail-tail Wallabies, a species previously thought to be extinct until the 1970s. This beautiful natural area supports high levels of biodiversity but could be destroyed by proposed coal mines. Walton coal mine is proposed by Magnetic South, a mining company owned by billionaire Sam Chong who are also looking to develop the neighbouring Gemini coal mine, near the Blackdown Tableland National Park. Mining company surveys identified 955.8 ha of koala habitat in the project area, the vast majority of this would be cleared for open cut pits and spoil dumps<sup>22</sup>. Koala scats were recorded on the project site.

As of February 2025, the environmental assessment of this project lapsed after the proponent failed to meet a deadline to provide information to the environment department. As the assessment is no longer active the area of koala habitat threatened by this project has been excluded from the updated total figures, but the proposal remains a future threat to koala habitat.

**Species likely to be impacted:** Bridled nail-tail wallaby, koala, squatter pigeon, red goshawk, star finch, black-breasted buttonquail, northern quoll, ghost bat, greater glider

Koala habitat on the site of Magnetic South's proposed Walton coal mine, looking towards Blackdown Tableland National Park

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A search.

## Background

#### Habitat loss and climate change threaten koalas

Under federal and state (NSW and Queensland) environment laws, the koala is listed as endangered. According to the federal environment department<sup>23</sup>, the koala was uplisted to endangered due to;

- Increased frequency and intensity of drought, high temperatures and heat waves caused by climate change, which also increases prevalence and intensity of bushfires.
- A shrinking climatically suitable area for koalas to survive.
- Diseases, specifically koala retrovirus (KoRV) and chlamydia (Chlamydia pecorum).
- Habitat destruction resulting from land clearing and mining.

The federal government's National Recovery plan for the koala predicts that by 2030 more than 20% of koala habitat is likely to be impacted by climate change, and the loss of climatically suitable habitat because of climate change may outpace losses from land use change within the next decade<sup>24</sup>.

Climate change threatens Australia's koala population in complex and varied ways. Other impacts linked to climate change are increased susceptibility to diseases due to stress, changes in distribution and occurrence of feed trees, and the direct impacts of more severe and frequent bushfire events. WWF estimated that around 8,700 koalas were killed by the 2019/20 bushfires in NSW and Queensland alone<sup>25</sup>.

In 2020, a NSW Parliamentary inquiry found koalas could become extinct by 2050. A new report released in May 2024 found biodiversity in NSW has declined across nearly every indicator since the previous 2020 report<sup>26</sup>.

NSW, QLD, and federal koala action plans all list habitat destruction and climate change as the biggest direct threats to the survival of the koala, yet none of these plans adequately address the direct impacts from coal mining. Neither state nor federal governments have ever rejected a coal mine on the basis of unacceptable impacts to koalas.

Despite habitat destruction from mining, and climate change being acknowledged as key drivers of extinction for the koala, in 2020 the Morrison government granted approval for the Olive Downs coal mine<sup>27</sup> to clear more than 5,000 hectares of koala habitat<sup>28</sup>.

Despite habitat destruction and climate change being acknowledged as key drivers of extinction for the koala, in 2020 the Morrison government granted approval for the Olive Downs coal mine, clearing more than 5,000 hectares of koala habitat.

On the 4th of October 2022, federal Environment Minister Tanya Plibersek pledged "no new extinctions" in the coming decade<sup>29</sup>. Since then, the minister has made a string of announcements, particularly regarding the endangered koala, aiming to demonstrate she is protecting them. In a press release in Queensland, she stated; "No one wants to imagine an Australia without koalas. The Australian Government is making sure our kids and grandkids will still be able to see koalas in the wild".<sup>30</sup>

Yet, the Australian government is currently considering approval of 21 coal projects which will destroy koala habitat and emit billions of tonnes of climate pollution, and they have already approved over 1,800 hectares of precious koala habitat to be cleared for new and expanding coal mines since 2022.

### Biodiversity offsets don't protect biodiversity

Mining companies in Australia are required to purchase environmental offsets for projects impacting biodiversity, but the use of offsets for coal mines has faced major criticisms. The federal biodiversity offset policy was introduced in 2012, and since then, biodiversity in Australia has continued to decline, and iconic species such as the koala have been elevated to endangered status. A wide range of studies indicate that offsets are ineffective at preventing biodiversity loss, and in fact, can enable habitat destruction<sup>31</sup>.

Offsets can never replace the unique ecological features of areas impacted by coal mining. Restoring or protecting functionally equivalent habitats (like-forlike) to replace those destroyed for mining is extremely difficult and success is rare. Long-term monitoring and maintenance of offsets is also challenging, with offset areas vulnerable to future pressures, including climate change, which undermines offset effectiveness<sup>32</sup>. The metrics for assessing offset success can be inadequate, and financial drivers may prioritise cost over ecological integrity<sup>33</sup>.

Ultimately, offsets fail to prevent biodiversity loss, and can be used to justify continued habitat destruction.

Habitat at risk from Whitehaven coal's Blackwater South coal mine.

#### Impacts on greater gliders

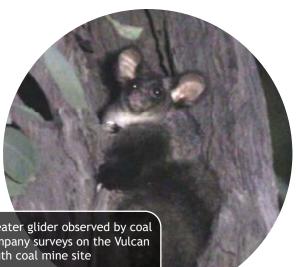
Koala habitat often overlaps with other threatened species habitat, including the greater glider. Greater gliders are the world's largest gliding possum, feed only on eucalypt leaves, and need tree hollows to nest in. Like the koala, greater gliders are also facing extinction due to habitat destruction and climate change.

Greater gliders are also threatened by new and proposed coal mines in NSW and QLD. By preventing the destruction of koala habitat for coal mines, species like the greater glider will also be protected. The southern and central greater glider subspecies were listed as endangered under federal environment laws in 2022, but there is currently no action plan to save these animals.

Gliders are particularly vulnerable to the impacts of habitat clearing, because of the time it takes for tree hollows to develop and the very small home ranges the animals occupy. In some instances, hollows can take up to 100 years to provide suitable habitat for gliders. That means it is crucial that all current suitable habitat be protected, given what little fragmented habitat remains for the species.

Some of the proposed new coal mines with the worst greater glider impacts include:

- BHP / BMAs Saraji coal mine, set to clear 748 ha of potential habitat for greater glider
- Whitehaven Coal's Winchester South coal mine with plans to clear 132 ha of greater glider habitat
- Peabody's Coppabella coal mine expansion set to clear 220 ha of greater glider habitat
- Stanmore's Isaac Downs coal mine expansion set to clear 330 ha of greater glider habitat



Greater glider observed by coal company surveys on the Vulcan South coal mine site

### **Methodology**

Proposed new coal mines undergoing assessment under the EPBC Act were identified through the Department of Climate Change Energy Water and Environment's EPBC Act public portal<sup>34</sup>. As of May 2025, there are 36 proposed new coal mining projects and expansions seeking approval under the EPBC Act from the Commonwealth government. These projects were scrutinised to determine the proponents' anticipated impacts on koala habitat, including direct loss of habitat from clearing and any residual impacts. Environment Impact Statement (EIS) and referral documents, such as ecology and biodiversity assessments were examined to determine the scale of impacts to koala habitat from the proposed coal mining projects. These projects were placed into 'category 1', with results displayed in Table 1.

Projects undergoing EPBC assessment where project documents indicate likely impacts to koala habitat, but precise figures for the area planned to be impacted were not given, were also included in the analysis. These projects were placed into 'category' 2', with results displayed in Table 2. BHP Mitsubishi alliance's Peak Downs continuation project falls into this category. The project is yet to undergo a detailed environmental impact assessment so no precise figures on the area of koala habitat to be impacted are available. However, the initial advice statement states that koalas and greater gliders have been recorded in areas planned for clearing, including in riparian woodland on Ripstone creek which is proposed to be diverted to facilitate mining<sup>35</sup>. The project area is over 4000 hectares in size<sup>36</sup>, with the southern half of the project area being mostly remnant native vegetation<sup>37</sup>. If precise figures for projects in category 2 were available, the figures for the total area of koala habitat to be impacted by proposed coal mines detailed in this report would be significantly larger.

Some proposed coal mining projects that have not vet been referred for assessment under the EPBC Act were included in the analysis. If an EPBC referral was likely. and legally required, due to anticipated impacts on protected matters listed under the Act, the project was included in the analysis. Where state-based approval documents specified a future EPBC referral for a project, that project was also included in this analysis. For example, Glencore's Hail Creek Open Cut Coal mine expansion project is not currently referred for assessment under the EPBC Act, however its application to the Queensland government for an amendment to its Environmental Authority states that the project will be referred for EPBC assessment in the future and Glencore reports nearly 600 hectares of koala habitat would be cleared<sup>38</sup>. Therefore, this project, and other projects in a similar stage of the assessment process were included in the analysis. These projects were placed into 'category 3', with results displayed in Table 3.

Table 4 shows details of the four coal mines with koala habitat impacts that have been approved by the Albanese government since they took office in 2022.

Methods for estimating coal combustion emissions from the projects is detailed in Appendix A - Koala and Climate Impacts Methodology and References.

Koala habitat destruction of proposed and approved new and expanding coal mines:

- The Albanese government approved four new coal mining projects to clear over 1,790 hectares of koala habitat since they took office in 2022.
- At least 24 proposed new coal mines threaten to clear important koala habitat, including 22 projects that are currently being assessed under the EPBC Act and seeking approval from the Albanese government.
- These 24 coal projects are proposing to clear a combined total of at least 10,614 hectares of koala habitat.
- The area of koala habitat that is proposed to be cleared by the coal mines detailed in this report is equivalent to 106 square kms, which is around 8,845 Suncorp stadium sized sporting fields, or over 70 times the size of Brisbane's CBD.

These figures are likely to be conservative, as they are based on coal company estimates of planned koala habitat clearance, taken from Environmental Impact Statements and other assessment process documents. The figures are also likely to be conservative as they are based on available information only and several proposed coal projects that will clear koala habitat have not yet published this information (see projects listed in Table 2).

Climate pollution of proposed and approved new coal mines with koala habitat impacts:

- More than 630 million tonnes of climate pollution will be emitted from the burning of coal from new and expanding coal mines approved by the Albanese government since they took office in 2022.
- If all the projects currently being assessed were approved it would produce an estimated 7.7 billion tonnes of climate pollution through emissions from the burning of coal.
- That's more climate pollution than what Australia has emitted over the last decade (approximately 5.1 billion tonnes of CO<sub>2</sub>-e).
- By comparison, the average passenger vehicle emits about 4.6 tonnes of CO<sub>2</sub>e per year. 7.7 billion tonnes of emissions are equivalent to the annual emissions of around 1.6 billion cars. Currently there is estimated to be around 1.4 billion vehicles globally.<sup>39</sup>

The vast majority of climate pollution from coal mines is from the burning of the coal that is mined, known as combustion emissions. The Australian government does not include the combustion emissions from coal mined in Australia in national emissions inventories and argues that accounting for the pollution from burning Australian coal is the responsibility of the countries Australia sells coal to. This has been labelled the 'drug dealers' defence and is extremely problematic because it results in incomplete accounting of Australia's real emissions from these coal projects. No matter where pollution from Australia's coal is produced, the impacts on Australia's climate and natural environments are felt.

Coal mines also produce climate pollution through fugitive methane emissions that are directly released into the atmosphere during the mining process. These emissions have been excluded from the analysis in this report which has focussed on climate pollution from combustion emissions of coal mines that the Australian government is not accounting for. Fugitive emissions are reported to regulators and included in Australia's national emissions inventories but are grossly underestimated and under-reported. Australia's methane emissions from coal are 60 percent higher than what it reports to the United Nations, according to the International Energy Agency's annual methane tracker<sup>40</sup>.

### Project Categories:

- 1. Projects with proponent estimated hectares of koala habitat to be cleared, currently being assessed under the EPBC Act Table 1.
- Projects being assessed under the EPBC Act where project documents indicate it is likely koala habitat will be cleared, but precise figures are not yet available - Table 2.
- Projects with plans to clear koala habitat that have not yet been assessed under the EPBC Act but are likely to be referred for assessment -Table 3.
- Projects with koala habitat impacts that have been approved by the Albanese government since they took office in 2022.



# Table 1: Area of koala habitat to be cleared by proposed coal projects currently being assessed under the EPBC Act, and total lifetime carbon emissions of the proposed mines (lifetime coal combustion emissions Mt)

(Refer to Appendix A for references)

NSW					
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Com- bustion emissions (Mt CO2-e)		
Boggabri Coal Mine Modification 10	Idemitsu	85	64		
Glendell Continued Operations Project	Glencore	156	210		
Moolarben OC3 Extension	Yancoal	113	83		
Ulan Coal Modification 6 - Underground Mining Extension	Glencore	11	62		
Ulan Coal Modification 8 - Ulan West Continued Operations	Glencore	35	105		
Total		400	524		
QLD			1		
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Com- bustion emissions (Mt CO2-e)		
Baralaba South	AMCI	27	98		
Blackwater North	Whitehaven Coal	27	433		
Blackwater South	Whitehaven Coal	6885	1574		
Coppabella Mine Humbug Gully project	Peabody	219	69		
Isaac Downs Extension	Stanmore	330	77		
Middlemount Coal Mine - Southern Open Cut	Peabody / Yancoal	63	53		
New Lenton Coal Project	Bowen Coking Coal	218	33		
Rolleston Continuation	Glencore	425	82		
Saraji East	BHP / BMA	1160	442		
Saraji Mine Grevillea Pit Continuation Project	BHP / BMA	10	121		
Vulcan Coal Mine - Matilda Pit	Vitrinite	84	Unknown		
Winchester South	Whitehaven Coal	169	558		
Total		9,617	3,540		
Total combined koala impacts and GHG emissions projects being assessed under national environme	•	10,017	4,064		

Table 2: Coal projects being considered under the EPBC Act with unreported estimated hectares of koala habitat to be cleared

NSW			
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO2-e)
Maules Creek expansion	Whitehaven	Exact figures are unknown, but according to the EPBC referral document 690 ha of native vegetation will be cleared for the expansion. An EIS with exact figures on the impacts to koala habitat is expected in May 2025.	300
Newstan Mine Extension Project	Banpu (Centennial)	948.7 ha of potential koala habitat was identified in the Project Area. It is unclear how much vegetation will be cleared for the expansion of the underground mine.	63
QLD			
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO2-e)
Dawson West Mining Project	Dawson West Coal Management	Koalas considered likely to occur, habitat and suitable feed trees identified. 11 trees with scratch marks were recorded. Greater Gliders recorded during surveys. No details on the area of habitat to be cleared.	253
Moorlands Open Cut Coal mining project	Cuesta Coal / Huaxin Energy	University of Queensland researchers and the Clermont community have raised concerns about the project impacts on the koala population. 1,267 ha of native vegetation is to be cleared, including 5 river- km of riparian corridors that provide connectivity of remnant vegetation and the Blair Athol State Forest.	124
Peak Downs Mine Continuation project	BHP / BMA	No figures on the total area of impacted habitat available. Several records of koala and greater glider presence on the site were recorded by surveys in areas planned to be cleared.	2768
Total Lifetime Coal Combus	roved (Mt CO <sub>2</sub> -e)	3,508	

Table 3: Coal projects with plans to clear koala habitat that have not yet been referred but are likely to be referred

QLD					
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO2-e)		
Gemini Coal mine	Magnetic South	Unknown	80		
Hail Creek Eastern Margin Extension Project	Glencore	597	69		
Total		597	149		

Table 4: Coal projects approved by the Albanese government since they formed government in 2022

NSW				
Project name	Proponent	Approval date	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO2-e)
Narrabri UG Stage 3 Extension	Whitehaven Coal	24 Sep 2024	515	257
Boggabri Coal Mine Modification 8	Idemitsu	19 Dec 2024	3	61
Total			518	318
QLD				
Project name	Proponent		Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO2-e)
Lake Vermont Meadowbrook Project	Jellinbah	19 Dec 2024	109	289
Vulcan South	Vitrinite	9 Jan 2025	1167	23
Total			1,276	312
Total combined koala impacts and GHG emissions of coal mining projects approved since 2022			1,794	630

Combined koala habitat to be cleared by all projects, if approved (ha): 10,614

Combined lifetime coal combustion emissions from all coal projects, if approved: 7.7 billion tonnes CO<sub>2</sub>-e

Combined koala habitat approved to be cleared by coal projects since 2022 (ha): 1,794

Combined lifetime coal combustion emissions from coal projects with koala impacts approved since 2022: 630 million tonnes CO<sub>2</sub>-e

## **Conclusion and recommendations**

Given the dire future endangered koalas face, in the context of historic fragmentation and continuing destruction of their habitat, and the devastating impacts climate change is already having on the species, all projects listed in this report, and any future proposed new coal mines and expansions that impact koala habitat, must be rejected by the Australian federal government.

The window of time to take action to prevent further climate-fuelled catastrophes, biodiversity loss, extinction, and runaway climate collapse is rapidly shrinking. There has never been a more important time to act to safeguard Australia's most iconic species.

Despite broken federal environment laws that have allowed the expansion of the coal industry unabated, the government has the power to act now and reject these coal mines.

The consequences of inaction could see Australia's most iconic species driven to extinction. The best way to tackle the extinction crisis and save the koala, is to protect their habitat, and take urgent action on climate change.

Rejecting these destructive coal mines will address both crises, protecting thousands of hectares of koala habitat from being cleared, and preventing billions of tonnes of carbon pollution from being emitted. There has never been a more urgent time to act.

This report recommends the federal government:

- 1. Reject approvals for new coal mines and expansions that impact koalas and other threatened species, to address the threat of extinction from habitat destruction and climate change;
- 2. Put in place an immediate moratorium on the clearing of any further koala habitat for coal projects and review environmental approvals of projects approved to impact on koala habitat in the last two years;
- 3. End the reliance on biodiversity offsets that enable destruction of critical koala and other threatened species habitat, such as the greater glider;
- Commit to a rapid phase out of fossil fuels, to safeguard endangered species like the koala from the devastating impacts of climate collapse;
- 5. Enact strong new nature laws that effectively protect threatened species and their habitat as well as comprehensively assess the climate impacts of proposed projects. Climate change, fuelled by coal and gas projects approved under the current Act, is a key threat to Australia's wildlife and habitat.



Habitat at risk from Whitehaven coal's proposed Winchester South coal mine.

# Appendix A - Koala and Climate Impacts Methodology and References

#### Estimating Lifetime Coal Combustion Emissions

Lifetime coal combustion emissions for projects have been estimated for all projects where data availability permitted. Three different approaches were used (in order of priority):

- 1. Where an EIS (or similar) has been produced in support of the approval of the project and this contains a figure for lifetime **estimated coal combustion emissions** for the mine, this figure was used directly.
- 2. Where an EIS (or similar) has been produced in support of the approval of the project and this contains a figure for lifetime **estimated product coal** production and product coal type has been specified (including any ratio for the split between product types). This information was used to calculate lifetime coal combustion emissions using National Greenhouse Accounts Factors<sup>41</sup> with all thermal coal assumed to be bituminous grade.
- 3. Approval application documents (or JORC statements) were used to estimate lifetime **run-of-mine (ROM) coal** production and product coal type (including any ratio for the split between product types). The yield of product coal from ROM was assumed to be 80% unless specified by the project proponent. This information was used to calculate lifetime coal combustion emissions using National Greenhouse Accounts Factors.



Table 1: Area of koala habitat to be cleared by proposed coal mines currently being assessed under the EPBC Act, and total lifetime carbon emissions of the proposed mines (lifetime coal combustion emissions Mt).

NSW			
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO <sub>2</sub> -e)
Boggabri Coal Mine Modification 10	Idemitsu	<b>85</b> <sup>42</sup>	<b>64</b> <sup>43</sup>
Glendell Continued Operations Project	Glencore	15644	21045
Moolarben OC3 Extension	Yancoal	113 <sup>46</sup>	8347
Ulan Coal Modification 6 - Underground Mining Extension	Glencore	11.2 <sup>48</sup>	62 <sup>49</sup>
Ulan Coal Modification 8 - Ulan West Continued Operations	Glencore	3550	105 <sup>51</sup>
Total	<u>.</u>	400.2	524
QLD			1
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO <sub>2</sub> -e)
Baralaba South	AMCI	<b>27</b> <sup>52</sup>	<b>98.1</b> <sup>53</sup>
Blackwater North	Whitehaven Coal	<b>26.9</b> <sup>54</sup>	43355
Blackwater South	Whitehaven Coal	6884.6 <sup>56</sup>	1574 <sup>57</sup>
Coppabella Mine Humbug Gully project	Peabody	219.1958	<b>69</b> <sup>59</sup>
Isaac Downs Extension	Stanmore	330.1960	77.33 <sup>61</sup>
Middlemount Coal Mine - Southern Open Cut	Peabody / Yancoal	63.3 <sup>62</sup>	53 <sup>63</sup>
New Lenton Coal Project	Bowen Coking Coal	21864	3365
Rolleston Continuation	Glencore	42566	82.2 <sup>67</sup>
Saraji East	BHP / BMA	1160.1768	442 <sup>69</sup>
Saraji Mine Grevillea Pit Continuation Project	BHP / BMA	9.770	121 <sup>71</sup>
Vulcan Coal Mine - Matilda Pit	Vitrinite	83.972	Unknown
Winchester South	Whitehaven Coal	168.9 <sup>73</sup>	558 <sup>74</sup>
Total		9,616.85	3,540.63
Total combined koala impacts and GHG emissio projects being assessed under national environ	-	10,017.05	4,064.63

Table 2: Projects being considered under the EPBC Act with unreported estimated hectares of koala habitat to be cleared

NSW			
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO <sub>2</sub> -e)
Maules Creek expansion	Whitehaven	Exact figures are unknown, but according to the EPBC referral <sup>75</sup> document 690 ha of native vegetation will be cleared for the expansion. An EIS with exact figures on the impacts to koala habitat is expected in May 2025.	300 <sup>76</sup>
Newstan Mine Extension Project	Banpu (Centennial)	948.7 ha of potential koala habitat was identified in the Project Area. <sup>77</sup> It is unclear how much vegetation will be cleared for the expansion of the underground mine.	63 <sup>78</sup>
QLD			
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO <sub>2</sub> -e)
Dawson West Mining Project	Dawson West Coal Management	Koalas considered likely to occur, habitat and suitable feed trees identified. 11 trees with scratch marks were recorded. Greater Gliders recorded during surveys. No details on the area of habitat to be cleared. <sup>79</sup>	25380
Moorlands Open Cut Coal mining project	Cuesta Coal / Huaxin Energy	University of Queensland researchers and the Clermont community have raised concerns about the project impacts on the koala population. <sup>81</sup> 1,267 ha of native vegetation is to be cleared, including 5 river-km of riparian corridors that provide connectivity of remnant vegetation and the Blair Athol State Forest. <sup>82</sup>	124 <sup>83</sup>
Peak Downs Mine Continuation project	BHP / BMA	No figures on the total area of impacted habitat available. Several records of koala and greater glider presence on the site were recorded by surveys in areas planned to be cleared <sup>84</sup>	276885
Total Lifetime Coal Comb	oustion emissions (Mt CC	02-e)	3,508

Table 3: Projects with plans to clear koala habitat that have not yet been referred but are likely to be referred

QLD			
Project name	Proponent	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emis- sions (Mt CO2-e)
Gemini Coal mine	Magnetic South	Unknown	80 <sup>86</sup>
Hail Creek Eastern Margin Exten- sion Project	Glencore	597 <sup>87</sup>	69 <sup>88</sup>
Total		597	149

### Table 4: Projects approved by the Albanese government since they formed government in 2022

NSW				
Project name	Proponent	Approval date	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO2-e)
Narrabri UG Stage 3 Extension	Whitehaven Coal	24 Sep 2024 <sup>89</sup>	514.5 <sup>90</sup>	257 <sup>91</sup>
Boggabri Coal Mine Modification 8	Idemitsu	19 Dec 2024 <sup>92</sup>	3.21 <sup>93</sup>	61 <sup>94</sup>
Total			517.71	318
QLD				
Project name	Proponent	Approval Date	Koala habitat to be cleared (ha)	Lifetime Coal Combustion emissions (Mt CO2-e)
Lake Vermont Meadowbrook Project	Jellinbah	19 Dec 202495	109.2%	28997
Vulcan South	Vitrinite	9 Jan 2025 <sup>98</sup>	1166.9 <sup>99</sup>	23 <sup>100</sup>
Total			1,276.1	312
Total combined koala impacts and GHG emissions of coal mining projects approved since 2022			1,793.81	630

# Appendix B - State government and financial institutions recommendations

### State government recommendations

State governments are also responsible for approving new coal mines and coal mine expansions. In light of the findings, this report recommends that the QLD and NSW state governments also:

- 1. Put in place an immediate moratorium on the clearing of any further koala habitat for coal and gas and review environmental approvals of projects approved to impact on koala habitat in the last two years;
- 2. Deliver the promised Great Koala National Park in NSW, put in place a moratorium on logging in this area until park boundaries are finalised, and phase out native forest logging in NSW and QLD;
- 3. Reject any approvals for new coal mines and expansions, including those that impact koalas and greater gliders and other threatened species to address the threat of extinction from habitat destruction and climate change;
- 4. End the reliance on biodiversity offsets that enable destruction of critical koala and greater glider habitat;
- 5. Commit to a rapid phase out of fossil fuels, to safeguard endangered species like the koala from the devastating impacts of climate collapse;
- 6. Enact strong new or updated state-based nature laws that effectively protect threatened species and their habitat as well as comprehensively assess the climate impacts of proposed coal projects.

### Finance recommendations

A handful of companies are responsible for the majority of coal mining proposed in koala habitat. Of the proposed new coal mines and expansions, the three companies responsible for the biggest potential impacts on koalas are Whitehaven Coal (7,079 ha), Glencore (1,223 ha), and BHP / BMA (1,169 ha). Any bank, investor, joint venture partner or insurer supporting these companies risks enabling the extinction of the koala in the wild, and campaigns from community groups to prevent further financing of coal mines with plans to destroy endangered koala habitat.

This report recommends that financial institutions, insurance companies, joint venture partners, and investors:

- 1. Rule out any new investments or arrangement of finance for any company pursuing new or expanded coal mines in koala habitat. Including but not limited to, Yancoal, Whitehaven Coal, Glencore, and BHP / BMA.
- 2. Meet with community groups to discuss concerns regarding the impacts of new coal mines and expansions on koalas, and the climate impacts of these projects.

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- 41. Department of Climate Change, Energy, Environment, and Water. (2023). National Greenhouse Accounts Factors 2023 Edition. August 2023. Available here: <u>https://www.dcceew. gov.au/sites/default/files/documents/national-greenhouse-account-factors-2023.pdf</u>. Note 1: 2024 Edition did not note changes to relevant emissions factors. Note 2: Thermal coal assumed to be bituminous grade.

- 42. Wright, S. (2024). Boggabri Coal Mine: Boggabri Modification Proposal. 17 May 2024. Available here: <a href="https://majorprojects.planningportal.nsw.gov.au/">https://majorprojects.planningportal.nsw.gov.au/</a> <a href="prweb/PRRestService/mp/01/getContent?AttachRef=P-">prweb/PRRestService/mp/01/getContent?AttachRef=P-</a> <a href="MA-70923456%2120240517T033233.091%20GMT">MA-70923456%2120240517T033233.091%20GMT</a>. Note: The <a href="proponent">proponent</a> reported in the Boggabri Modification Scoping <a href="Report an additional">Report an additional 85 ha of disturbance within the exist- ing Project Boundary and beyond the disturbance footprint currently approved for BCM.</a>
- 43. Wright, S. (2024). Boggabri Coal Mine: Boggabri Modification Proposal. 17 May 2024. Available here: <u>https://majorprojects.planningportal.nsw.gov.au/</u><u>prweb/PRRestService/mp/01/getContent?AttachRef=P-</u>MA-70923456%2120240517T033233.091%20GMT. Note: The proponent reported modification scoping report notes that total product coal is estimated to be 25Mt. Total estimated emissions from coal combustion has been calculated based on total product coal projected to be mined over the life of the project (25 Mt). The emissions factor used is from the Australian National Greenhouse Accounts (2024), and is applied to the total product coal split by product coal type (37% metallurgical and PCI coal, and 63% thermal coal).
- 44. Umwelt (on behalf of Glencore). (2019). Glendell Continued Operations Project Ecological Matters of National Environmental Significance Report. Februrary 2019. Reference Page 56. Available here: <u>https://epbcpublicportal.environment.gov.au/entity/sharepointdocumentlocation/e6bb31f7-c1b1-ec11-983f-002248182c59/2ab10dab-d681-4911-b881-cc99413f07b6?file=2019-8409%20Referral-Attach-Attachment%203\_MNES%20Report\_FINAL.pdf</u>
- 45. Umwelt (on behalf of Glencore). (2019). Glendell Continued Operations Project Greenhouse Gas and Energy Assessment Report (Appendix 28). November 2019. Reference Page 56. Available here: <u>https://majorprojects.planning-portal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9349%2120191209T222458.979%20GMT.</u>
- 46. Yancoal. (2024). Moolarben Coal Complex OC3 Extension Project - Amendment Report. Reference - Page 5. Available here: <u>https://majorprojects.planningportal.nsw.</u> <u>gov.au/prweb/PRRestService/mp/01/getContent?Atta-</u> chRef=SSD-33083358%2120240315T015228.110%20GMT.
- 47. Yancoal. (2024). Moolarben Coal Complex OC3 Extension Project Greenhouse Gas Assessment. Available here: <u>https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?Atta-chRef=SSD-33083358%2120221104T091012.052%20GMT.</u>
- 48. Umwelt (on behalf of Glencore). (2024). Ulan Coal Complex Modification 6 Amended Biodiversity Development Assessment Report. May 2024. Reference Page 184. Available here: <u>https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP0 8\_0184-MOD-6%2120240515T232048.788%20GMT.</u>
- 49. Umwelt (on behalf of Glencore). (2022). Ulan Coal Complex Underground Modification 6 Greenhouse Gas and Energy Assessment. October 2022. Available here: <u>https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP08\_0184-MOD-6%2120\_221107T024252.912%20GMT.</u>
- 50. Glencore. (2025). Ulan West Continued Operations Modification EPBC Referral. 31 January 2025. Reference Page 233. Available here: <u>https://epbcpublicportal.environment.gov.au/entity/sharepointdocumentlocation/ba418948-0f05-f011-bae2-00224811099e/2ab10dab-d681-4911-b881-cc99413f07b6?file=00-2025-10123%20Referral.pdf.</u>

- 51. Glencore. (2025). Ulan West Continued Operations Modification - EPBC Referral. 31 January 2025. Reference - Page 42. Available here: <u>https://epbcpublicportal.environment.</u> <u>gov.au/\_entity/sharepointdocumentlocation/ba418948-</u> 0f05-f011-bae2-00224811099e/2ab10dab-d681-4911-b881cc99413f07b6?file=00-2025-10123%20Referral.pdf</u>. Note: The Proposed Action intends to produce a total of approximately 43 Mt of thermal coal over 6 years which (on average) would result in ~17.5MtCO2e per annum of Scope 3 emissions from the combustion of coal.
- 52. Eco Solutions and Management (on behalf of Baralaba Coal Company). (2023). Baralaba South Project - Terrestrial Ecology Impact Assessment Report (Appendix F). Reference - Page 60. Available here: <u>https://www.baralabacoal.com.</u> <u>au/wp-content/uploads/2024/02/Appendix-F-BSP-EIS-Terrestrial-Ecology-Impact-Assessment\_1.pdf</u>.
- 53. Trinity Consultants Australia (on behalf of AMCI). (2023). Baralaba South Project Air Quality and Greenhouse Gas Assessment. November 2023. Available here: <u>https://</u> www.baralabacoal.com.au/wp-content/uploads/2024/02/ Appendix-L-BSP-EIS-Air-Quality-and-Greenhouse-Gas-Assessment\_1.pdf.
- 54. BHP Mitsubishi Alliance. (2023). EPBC Referral: Blackwater Mine - North Extension Project. Blackwater North. 31 October 2023. Reference - Page 21. Available here: <u>https:// epbcpublicportal.awe.gov.au/\_entity/sharepointdocumentlocation/5ca59dfe-ced1-ee11-9079-002248933f51/2ab-10dab-d681-4911-b881-cc99413f07b6?file=00-2023-09723%20 Referral.pdf.</u>
- 55. BHP Mitsubishi Alliance. (2023). EPBC Referral: Blackwater Mine - North Extension Project. Blackwater North. 31 October 2023. Available here: <u>https://epbcpublicportal.awe.gov.</u> <u>au/\_entity/sharepointdocumentlocation/5ca59dfe-ced1-ee</u> <u>11-9079-002248933f51/2ab10dab-d681-4911-b881-cc99413f-</u> <u>07b6?file=00-2023-09723%20Referral.pdf</u>. Note: Project seeks to extract approximately 220 million tonnes (Mt) of Run-of-Mine (RoM) coal with 80% yield, Blackwater Mine produces predominantly metallurgical (coking) coal (-93% coking coal) emissions estimated using National Greenhouse Accounts Factors.
- 56. EMM Consulting (on behalf of BHP Mitsubishi Alliance). (2022). Blackwater Terrestrial Ecology Survey Report - Flora and fauna seasonal surveys. Reference - Pages 102 - 103. Available here: <u>https://epbcpublicportal.environment.</u> gov.au/\_entity/sharepointdocumentlocation/ca34e3c6b216-ed11-b83e-00224818a528/2ab10dab-d681-4911-b881cc99413f07b6?file=Att%20F%20-%20EMM%20%282022%29%20 Blackwater%20Terrestrial%20Ecology%20Survey%20Report. pdf.
- 57. EMM Consulting (on behalf of BHP Mitsubishi Alliance). (2022). Blackwater Terrestrial Ecology Survey Report - Flora and fauna seasonal surveys. Reference - Pages 102 - 103. Available here: <u>https://epbcpublicportal.environment.</u> <u>gov.au/\_entity/sharepointdocumentlocation/ca34e3c6b216-ed11-b83e-00224818a528/2ab10dab-d681-4911-b881cc99413f07b6?file=Att%20F%20-%20EMM%20%282022%29%20 Blackwater%20Terrestrial%20Ecology%20Survey%20Report. pdf. Note: Project seeks to extract approximately 800 million tonnes (Mt) of Run-of-Mine (RoM) coal with 80% yield, adjacent Blackwater North Mine produces predominantly metallurgical (coking) coal (~93% coking coal) emissions estimated using National Greenhouse Accounts Factors.</u>
- 58. E2M (On behalf of Peabody). (2024). Coppabella Mine Project - MNES Terrestrial Ecology Report. February 2024. Reference - Page 36. Available here: <u>https://environment.</u> <u>desi.qld.gov.au/\_\_data/assets/pdf\_file/0033/348828/a-ea-</u> <u>amd-100600739-support-info-appendix-g.pdf</u>.

- 59. Peabody Energy Australia Pty Ltd. (2024). EPBC Referral: Coppabella Mine Humbug Gully Project. 30 March 2024. Available here: <u>https://epbcpublicportal.environment.gov.</u> <u>au/\_entity/sharepointdocumentlocation/3012ae92-5d2f-ef1</u> <u>1-840a-0022489752fc/2ab10dab-d681-4911-b881-cc99413f-</u> <u>07b6?file=00-2024-09867%20Referral.pdf</u>. Note: Project referral states that it will enable mining of "33.4Mt (ROM) at 10:1 ratio at an estimated yield of 75 %" and "extends mine life by eight years." Assumed that product is 100% coking. emissions estimated using National Greenhouse Accounts Factors
- 60. Stanmore Resources Ltd. (2025). EPBC Referral: Isaac Downs Extension Project. 28 April 2025. Reference - Page 40. Available here: <u>https://epbcpublicportal.</u> <u>environment.gov.au/\_entity/sharepointdocumentlo-</u> <u>cation/37dea0db-792c-f011-8c4e-00224811099e/2ab-</u> <u>10dab-d681-4911-b881-cc99413f07b6?file=00-2025-10183%20</u> <u>Referral.pdf</u>.
- 61. Stanmore Resources Ltd. (2025). EPBC Referral: Isaac Downs Extension Project. 28 April 2025. Reference - Page 40. Available here: <u>https://epbcpublicportal.</u> <u>environment.gov.au/\_entity/sharepointdocumentlocation/37dea0db-792c-f011-8c4e-00224811099e/2ab-10dab-d681-4911-b881-cc99413f07b6?file=00-2025-10183%20 Referral.pdf.</u>
- 62. Reid, H. (2025). Variation of proposal to take an action Middlemount Southern Extension, Queensland Middlemount Coal Mine. 9 March 2025. Available here: <u>https://epbcpublicportal.environment.gov.au/entity/sharepointdocumentlocation/b645e992-869fee11-be37-0022489332fb/2ab10dab-d681-4911-b881-cc99413f07b6?file=2021-8920-Variation-to-Proposal-Decision.pdf.</u>
- 63. Reid, H. (2025). Variation of proposal to take an action Middlemount Southern Extension, Queensland Middlemount Coal Mine. 9 March 2025. Available here: <u>https://epbcpublicportal.environment.gov.au/\_entity/sharepointdocumentlocation/b645e992-869f-ee11-be37-0022489332fb/2ab10dab-d681-4911-b881-cc99413f07b6?file=2021-8920-Variation-to-Proposal-Decision.pdf</u>. Note: Project seeks to extract approximately 24 million tonnes (Mt) of additional Run-of-Mine (RoM) coal assuming an 80% yield and that the product is 100% metallurgical (coking) coal emissions estimated using National Greenhouse Accounts Factors
- 64. Bowen Coking Coal Limited. (2019). New Lenton Coal Project - Terrestrial Ecology Report. Reference - Page 93. Available here: <u>https://epbcpublicportal.environment.gov.</u> <u>au/ entity/sharepointdocumentlocation/064aadde-e7b1-ec</u> <u>11-983f-002248182c59/2ab10dab-d681-4911-b881-cc99413f-</u> <u>07b6?file=2020-8778%20Appendix%20A%20Terrestrial%20Ecol-</u> ogy%20Assessment%20Part%20A.pdf.
- 65. Bowen Coking Coal Limited. (2020). EPBC Referral New Lenton Coal Project. Available here: <u>https://epbcpublic-portal.environment.gov.au/\_entity/sharepointdocument-location/064aadde-e7b1-ec11-983f-002248182c59/2ab-10dab-d681-4911-b881-cc99413f07b6?file=2020-8778%20-%20 referral.pdf. Note: Latest JORC statement for the deposit estimates that it contains 6.6Mt marketable coking coal and 6.1 Mt marketable thermal coal emissions estimated using National Greenhouse Accounts Factors.</u>

- 66. Mining Engineering Technical Services Pty Ltd. (on behalf of Glencore). (2023). Spring Creek North Continuation Project (Rolleston Continuation Project) - QEJ22069 Spring Creek North Continuation Project Significant Impact Assessment, 8 May 2023. Reference - Page 34. Available: <u>https://epbcpublicportal.environment.gov.au/\_entity/sharepointdocumentlocation/a5a657b6-9a26-ee11-9965-000d3a794f5a/2ab-10dab-d681-4911-b881-cc99413f07b6?file=Att%20B%20 -%20Significant%20Impact%20Assessment%20E2M\_2023%20 Part%201%20-%20Report.pdf.</u>
- 67. Turnbull, A. (2024). Rolleston Open Cut Coal Mine Projected Greenhouse Gas Emission Assessment Erratum. 1 March 2024. Available here: <u>https://www.glencore.com.au/.rest/</u> api/v1/documents/b44870b9de53b2b8b8d8f95311518346/ SCNCP+PGGEA+Erratum\_20240301.pdf.
- 68. AECOM (on behalf of BM Alliance Coal Poperations Pty Ltd). (2024). Saraji East Mining Lease Project Baseline Environmental Studies Terrestrial Ecology Technical Report. Reference - Page 61. Available here: <u>https://www.bhp.</u> <u>com/-/media/bhp/regulatory-information-media/coal/</u> <u>bma/saraji-east/saraji-east-mining-lease-project-eis-2023/</u> <u>appendix-c-1-terrestrial-ecology-technical-report\_v2.pdf.</u>
- 69. AECOM (on behalf of BM Alliance Coal Poperations Pty Ltd). (2024). Saraji East Mining Lease Project Baseline Environmental Studies Terrestrial Ecology Technical Report. Reference - Pages 61 - 62; 98. Available here: <u>https://www. bhp.com/-/media/bhp/regulatory-information-media/coal/</u> <u>bma/saraji-east/saraji-east-mining-lease-project-eis-2023/</u> <u>appendix-c-1-terrestrial-ecology-technical-report\_v2.pdf</u>.
- 70. AECOM (on behalf of BM Alliance Coal Operations Pty Ltd. (2023). Matters of National Environmental Significance -Significant Impact Assessment Grevillea Pit Continuation Project. 21 December 2023. Reference - Page 45. Available here: <u>https://epbcpublicportal.awe.gov.au/\_entity/</u> <u>sharepointdocumentlocation/222dc1f4-280c-ef11-9f89-0022</u> <u>4895474f/2ab10dab-d681-4911-b881-cc99413f07b6?file=Attachment%20D%20-%20MNES%20Significant%20Impact%20</u> <u>Assessment.pdf.</u>
- 71. AECOM (on behalf of BM Alliance Coal Operations Pty Ltd. (2023). Matters of National Environmental Significance

  Significant Impact Assessment Grevillea Pit Continuation Project. 21 December 2023. Available here: <a href="https://epbcpublicportal.awe.gov.au/entity/sharepointdocu-mentlocation/222dc1f4-280c-ef11-9f89-00224895474f/2ab-10dab-d681-4911-b881-cc99413f07b6?file=Attachment%20</a>D%20-%20MNES%20Significant%20Impact%20Assessment.pdf. Note: Project seeks to extract approximately 55 million tonnes (Mt) of Run-of-Mine (RoM) coal assuming an 80% yield and that the product is 100% metallurgical (coking) coal emissions estimated using National Greenhouse Accounts Factors.
- 72. Mining and Energy Technical Services Pty Ltd (on behalf of Vitrinite Pty Ltd). (2022). Terrestrial Ecology Assessment for the Vulcan Coal Mine Amendment. Reference - Page 89. Available here: <u>https://epbcpublicportal.awe.gov.au/\_entity/sharepointdocumentlocation/b88608f7-796b-ed11-81ac-00224818a1ee/2ab10dab-d681-4911-b881-cc99413f07b6?file=Att%20A%20Terrestrial%20Ecology.pdf.</u>
- 73. Whitehaven Coal. (2023). Winchester South Project Environmental Impact Statement Attachment 1 - Proposed Conditions and Commitments. Reference - Page 30. Available here: <u>https://eisdocs.dsdip.qld.gov.au/Winchester%20</u> <u>South/CGER/attachment-1-proposed-conditions-and-commitments.PDF</u>.

- 74. Katestone Environmental Pty Ltd. (on behalf of Whitehaven WS Pty Ltd). (2022). Air Quality and Greenhouse Gas Assessment of the Winchester South Project. June 2022. Available here: <u>https://eisdocs.dsdip.qld.gov.au/Winchester%20South/Revised%20draft%20EIS/attachment-13-airguality-and-greenhouse-gas.pdf</u>.
- 75. Whitehaven Coal. (2024). EPBC Referral Maules Creek Coal Mine Continuation. 36 March 2023. Available here: <u>https://eap-cp.powerappsportals.com/\_entity/</u> <u>sharepointdocumentlocation/c10cd664-d15d-ef11-bfe4-</u> 002248980235/2ab10dab-d681-4911-b881-cc99413f07b6?-<u>file=00-2024-09936%20Referral.pdf</u>.
- 76. Whitehaven Coal. (2024). EPBC Referral Maules Creek Coal Mine Continuation. 36 March 2023. Available here: <u>https://eap-cp.powerappsportals.com/\_entity/</u> <u>sharepointdocumentlocation/c10cd664-d15d-ef11-bfe4-</u>002248980235/2ab10dab-d681-4911-b881-cc99413f07b6?-<u>file=00-2024-09936%20Referral.pdf</u>. Note: Project Scoping Document states that 120Mt of ROM coal will be mined during project lifetime. Maules Creek as achieved a yield of 78% product coal over the five years to FY2023. Maules Creek primarily produces a high calorific value thermal coal and a secondary semi-soft coking coal product. The relative mix of these two products is not disclosed directly so a 20% metallurgical, 80% thermal split has been assumed.
- 77. Centennial Newstan Pty Limited. (2019). EPBC Referral - Newstan Mine Extension Project. 20 November 2019. Available here: <u>https://epbcpublicportal.awe.gov.</u> <u>au/all-referrals/project-referral-summary/project-deci-</u> <u>sion/?id=4ac89a0d-4400-ea11-8276-00505684324c.</u>
- 78. SLR Consulting Australia Pty Ltd (on behalf of Centennial Newstan Pty Ltd). (2020). Newstan Mine Extension Project Air Quality Impact Assessment and Greenhouse Gas Assessment. September 2020. Reference - page 79. Available: <u>https://majorprojects.planningportal.nsw.</u> <u>gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-10333%2120210820T000421.648%20GMT.</u>
- 79. Civil and Mining Resources Pty Ltd. (2018). EPBC Referral -Dawson West Mining Project. 7 September 2018. Available here: <u>https://epbcpublicportal.environment.gov.au/\_enti-</u> ty/sharepointdocumentlocation/b8e0cc87-93b4-ec11-983f-00224818ab04/2ab10dab-d681-4911-b881-cc99413f07b6?file=2018-8269%20referral.pdf.
- 80. Civil and Mining Resources Pty Ltd. (2018). EPBC Referral -Dawson West Mining Project. 7 September 2018. Available here: <u>https://epbcpublicportal.environment.gov.au/\_entity/sharepointdocumentlocation/b8e0cc87-93b4-ec11-983f-00224818ab04/2ab10dab-d681-4911-b881-cc99413f07b6?file=2018-8269%20referral.pdf. Note: The EPBC referral states that the project will produce 130Mt of ROM coal and a thermal coal product. 80% yield from ROM assumed, emissions estimated using National Greenhouse Accounts Factors.</u>
- 81. Groves, M. (2020). 'Pro-coal Clermont still fights to save its forest from the proposed Moorlands open-cut mine'. ABC News. 13 February 2020. Available here: <u>https://www.abc.</u> <u>net.au/news/rural/2020-02-13/coal-town-clermont-fights-</u> <u>to-save-koala-habitat-mining/11882884</u>
- 82. Independent Expert Scientific Committee. (2022). Advice to decision maker on coal mining project - IESC 2022-138: Moorlands Open Cut Coal Mine Project (EPBC 2015/7451)
  New Development. 7 November 2022. Available here: https://www.iesc.gov.au/sites/default/files/2022-12/iescadvice-moorlands-open-cut-coal-mine-project-2022-138.pdf

- 83. Cuesta Coal Limited. (2015). EPBC Referral Moolands Coal Project. Available here: <u>https://epbcpublicportal.</u> <u>environment.gov.au/\_entity/sharepointdocumentlo-</u> <u>cation/70037371-bbb1-ec11-983f-002248182c59/2ab-</u> <u>10dab-d681-4911-b881-cc99413f07b6?file=Referral.pdf</u>. Note: The EPBC Referral states the mine will produce 1.7Mtpa for 30 years of bituminous thermal coal, emissions estimated using National Greenhouse Accounts Factors.
- 84. BM Alliance Coal Operations Pty Ltd. (2022). Peak Downs Mine Continuation Project - Initial Advice Statement. Available here: <u>https://eisdocs.dsdip.qld.gov.au/Peak%20</u> <u>Downs%20Mine%20Continuation/Initial%20Advice%20Statement/Peak-Downs-Mine-Continuation-Project-Initial-Advice-Statement-23March2022.pdf</u>
- 85. BM Alliance Coal Operations Pty Ltd. (2022). Peak Downs Mine Continuation Project - Initial Advice Statement. Available here: <u>https://eisdocs.dsdip.qld.gov.au/Peak%20</u> <u>Downs%20Mine%20Continuation/Initial%20Advice%20Statement/Peak-Downs-Mine-Continuation-Project-Initial-Advice-Statement-23March2022.pdf</u>. Note: Initial Advice Statement states that project would result in "extraction of up to approximately 1,256 million tonnes (Mt) of ROM coal" over mine life and 98% of product would be metallurgical coal, emissions estimated using National Greenhouse Accounts Factors.
- 86. Magnetic South. (2023). Gemini Project. Website. Available here: <u>https://www.magnetic-south.com.au/gemini-project</u>. Note: The Magnetic South website states the project will produce an average of 1.8Mt of ROM coal over a 20 year production life. Assuming 80% yield and that the product is 100% metallurgical (coking) coal, emissions estimated using National Greenhouse Accounts Factors.
- 87. SLR Consulting Australia Pty Ltd (on behalf of Glencore Coal Assets Australia). (2025). Hail Creek Coal Pty Ltd Environment Assessment Report. Hail Creek Eastern Margin Extension Project. 3 April 2025. Available here: <u>https://</u> www.glencore.com.au/.rest/api/v1/documents/a6715025 e7060507aa31f7d8b1d1d1f0/Appendix+A1+-+Ecological+Impact+Assessment+Report.pdf
- 88. Glencore. (2025). Hail Creek Open Cut Eastern Margin Extension - EA Amendment - GHG Assessment. 28 April 2025. Page 44. Available here: <u>https://environment.desi.qld.gov.</u> <u>au/\_\_\_\_\_data/assets/pdf\_\_file/0031/394159/appendix-i-greenhouse-gas-assessment.pdf.</u>
- 89. Gowland, K. (2024). Notification of approval Narrabri Underground Mine Stage 3 Extension Project (EPBC ref 2019/8427). 24 September 2024. Available here: https://epbcpublicportal.environment.gov.au/\_entity/ sharepointdocumentlocation/081f5f89-34d6-ec11-a7b5-00224818bff9/2ab10dab-d681-4911-b881-cc99413f07b6?file=2019-8427-Approval-Decision.pdf.
- 90. Whitehaven Coal. (2022). Narrabri Underground Mine Stage 3 Extension Project Environmental Impact Statement. Reference - Page 72. Available here: <u>https://majorprojects.planningportal.nsw.gov.</u> <u>au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-10269%2120201023T021129.246%20GMT</u>.

- 91. Whitehaven Coal. (2022). Narrabri Underground Mine Stage 3 Extension Project Environmental Impact Statement. Reference - Page 72. Available here: <u>https://majorprojects.planningportal.nsw.gov.</u> <u>au/prweb/PRRestService/mp/01/getContent?Atta-</u> <u>chRef=SSD-10269%2120201023T021129.246%20GMT</u>. Note: Project Scoping Report states that the project will produce an additional 104.7 Mt of product coal. Total estimated emissions from coal combustion has been calculated based on total product coal projected to be mined over the life of the project (104.7 Mt). The emissions factor used is from the Australian National Greenhouse Accounts (2024), and is applied to the total product coal split by product coal type (5% PCI and 95% thermal coal).
- 92. Gowland, K. (2024). Notification of approval Boggabri Coal Mine SSD 09\_0182 Modification 8, NSW (EPBC 2021/8875). 19 December 2024. Available here: <u>https://</u> <u>epbcpublicportal.environment.gov.au/\_entity/sharepoint-</u> <u>documentlocation/bfaa8d24-6f37-ef11-a316-00224892fbd-</u> <u>f/2ab10dab-d681-4911-b881-cc99413f07b6?file=2021-8875-</u> <u>Approval-Decision.pdf</u>.
- 93. James Bailey and Associates (on behalf of Boggabri Coal Operations Pty Ltd). (2022). Boggabri Coal Mine Modification 8 - Amendment Report. 28 November 2022. Available here: https://majorprojects.planningportal.nsw.gov.au/ prweb/PRRestService/mp/01/getContent?AttachRef=MP09\_0 182-MOD-8%2120230310T041339.739%20GMT.
- 94. NSW Department of Planning, Housing, and Infrastructure. (2024). Boggabri Coal Mine Modification 8 State Significant Development Modification Assessment. January 20245. Available here: <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef</a> =MP09\_0182-MOD-8%2120240123T023936.819%20GMT. Note: The Project Modification Report states that the project will produce an additional 28.1Mt ROM coal, and approximately 24Mt product coal. Total estimated emissions from coal combustion has been calculated based on total product coal projected to be mined over the life of the project (24 Mt). The emissions factor used is from the Australian National Greenhouse Accounts (2024), and is applied to the total product coal split by product coal type (37% metallurgical and PCI coal, and 63% thermal coal).
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