The Chief Executive
Department of Environment, Science and Innovation
Attention: The EIS Coordinator (Baralaba South Project)
GPO Box 2454, Brisbane QLD 4001

Email: eis@des.qld.gov.au

30 April 2024

Re: Submission on the Environmental Impact Statement (EPBC 2012/6547) for the Baralaba South Project

Thank you for the opportunity to make this submission in response to the Environmental Impact Statement **(EIS)** submitted by Baralaba South Pty Ltd (**the Proponent**) for the proposed Baralaba South Coal Project **(the Project).**

Environmental Advocacy in Central Queensland (**EnvA**) is a Central Queensland association with an interest in ensuring that all land use is sustainable and does not significantly impact on the environment. We are particularly concerned about the risks associated with coal mining, coal seam gas and climate change.

EnvA believes that opening new or expanding existing coal and gas projects:

- is contrary to meeting Australia's emission targets and Queensland's emission targets,
- is likely to result in irreparable damage to our local landscape and result in stranded assets,
- will put our local community at further risk of extreme weather such as increasing the intensity and frequency of storms, floods, droughts and bushfires,
- will damage our significant coastal resources including our beaches and the Great Barrier Reef through storm surge and increased coral bleaching events,
- will further degrade wildlife habitats of state and national significance through both habitat loss and climate change, and
- rarely take into consideration the views of Traditional Owners and local communities who are concerned about protecting their land from fossil fuel development.

Our submission recommendation

EnvA is of the strongest view that this proposal must be refused on the basis of:

- the dated terms of reference and lack of the Proponent meeting legislated timeframes through the assessment process,
- the loss and impacts to prime agricultural land,
- impacts to water quality and quantity, including water required for townships, agriculture and potentially local wetlands and groundwater dependent ecosystems,
- the greenhouse gas emissions that will contribute to climate change impacts, and
- the lack of demonstration that this project stacks up on any environmental, social and economic assessment.

The grounds for our specific concerns and recommendations are outlined below.

The Baralaba South Coal mine

The Baralaba South Project is a proposed greenfield coal mine located approximately 8km south of Baralaba in Central Queensland. The proposed mine is an open-cut metallurgical coal mine, producing up to 2.5 Mtpa ROM coal for export of low-volatile pulverised coal injection (PCI) coal.

The proposed Project is a continuation of the Baralaba Complex which will extend the Baralaba Complex's mining operations for approximately 23 years, at a rate of up to 2.5 Mtpa ROM and 1.9 Mtpa product coal.

The Project will mine approximately 49 Mt of ROM to produce approximately 34.6 Mt of PCI product coal over the life of the project.[1]

The Project footprint covers approximately 1,211ha along the eastern boundary of the MLA700057. It is noted that this footprint has been revised from previous plans to reduce the proposed disturbance footprint and minimise activities on the Dawson River flood plain.

Assessment process

The Baralaba South Project was originally owned by Cockatoo Coal. A subsidiary of Cockatoo Coal, Wonbindi Coal Pty Ltd, submitted an initial EPBC application for a 4 Mtpa ROM mine the Project in August 2012. This project was determined to be a 'Controlled Action' under the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**) in October 2012, for assessment under the bilateral agreement.

The controlling provisions for the Project, with regards to its potential impacts on MNES at that time were:

- listed threatened species and communities (sections 18 and 18A);
- listed migratory species (sections 20 and 20A); and
- water resources (sections 24D and 24E).

In 2017, Liberty Mutual (an insurance company) took full ownership of the mine after Cockatoo Coal went into administration. Liberty Mutual had been a partial investor in Baralaba Coal complex prior to assuming full ownership. Following this acquisition, there was a major community-led campaign against Baralaba South Coal mine proceeding on the basis that the mine would cause significant impacts on prime agricultural land, contaminate water supplies and contribute to global warming, among other issues. The campaign was buoyed when Liberty Mutual chose not to submit its EIS by the due date[2].

In late 2021, Liberty Mutual sold Baralaba Coal to American Metals and Coal International (ACMI) and the Queensland Government allowed them to revive the EIS process despite the original timeframes having expired. This continuation of the EIS process actively avoided the additional policy and scrutiny in relation to coal mines on floodplains and the provision of a Progressive Rehabilitation and Closure Plan (**PRCP**).

We note that the Department of Environment, Science and Innovation has previously noted the significant community concerns (primarily focused on Baralaba South Project's impacts on the Dawson River floodplain, and surrounding agricultural land) with this proposal.

This resulted in the Proponent revising the Project with a reduced mine footprint removing some areas of mining from the Dawson River floodplain and reducing the annual coal extraction rate from 5Mtpa to 2.5Mtpa. The EIS for this revised coal mine was submitted in December 2023[3] and was released for public comment on 4 March 2024.

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[1] ARC Environmental Solutions. (2023). Baralaba South Project - Environmental Impact Statement. Executive Summary.

[2] Liberty Mutual puts Australian coal project on hold

[3] Baralaba South EIS

EnvA's concerns about this Project

EnvA considers that there is insufficient, inaccurate and sometimes misleading and confusing information provided in the application (i.e the areas of threatened wildlife to be cleared is not consistent through text and tables within the EIS chapters). This makes it difficult to fully understanding the potential impacts of the Project and weigh up the social, environmental and economic cost-benefits.

Terrestrial ecology

The area proposed to be directly cleared for the Project is listed as 1,211ha. This huge footprint will impact on at least five communities of conservation significance, two threatened plant species, and three threatened fauna species.

Flora

Three Regional Ecosystems were identified within the Project area:

- *Eucalyptus coolabah* woodland on alluvial plains. Currently listed as 'Of Concern' under the *Vegetation Management Act 1994*, and mapped by the Queensland Government as being of a high ecological significance (**HES**) wetland in a wetland protection area.
- *Eucalyptus crebra* and other *Eucalyptus* spp. and *Corymbia* spp. Woodland on Cainozoic sand plains and/or remnant surfaces.
- Semi-evergreen vine thickets on Cainozoic sand plains and/or remnant surfaces.

Two Threatened Ecological Communities (**TEC**) were also identified within the MLA including:

- Brigalow TEC, and
- Coolibah – Black Box Woodlands TEC.

A total of 322 native flora species were recorded from the terrestrial ecology study area. Of these species, two threatened flora species were identified:

- *Xerothamnella herbacea,* which is listed as endangered under the EPBC Act and *Nature Conservation Act 1992* (**NC Act**), and
- *Solanum elachophyllum*, which is listed as endangered under the NC Act.

Fauna

A total of 187 native terrestrial vertebrate fauna species were identified from the Project site, including 13 amphibians, 17 reptiles, 129 birds, 18 microbats and 10 mammals.

Of the fauna species found at the Project site, three fauna species listed under the EPBC Act at the time of the controlled action decision (2012) were identified in the study area during the field surveys including the:

- ornamental snake (92.1ha of habitat in the footprint area),
- koala (26.5ha of habitat in the footprint area and a further 0.4ha in the water release/infrastructure area), and
- squatter pigeon (84.7ha of habitat in the footprint area).

Further to this, there are a number of species with a moderate likelihood of occurrence including the white-throated needle-tail, Australian painted snipe, greater glider, yellow-bellied glider. We also note that section 7.4.4.3 of the EIS[4] states that:

"Two species listed as threatened under the NC Act and one species listed as Special Lease Concern were identified within the terrestrial ecology study area, respectively:

- greater glider,
- yellow-bellied glider, and
- short-beaked echidna."

[4] ARC Environmental Solutions (2023) Baralaba South Project – Environmental Impact Statement. Chapter 7 – Flora and Fauna

EnvA considers that the conclusion that these species have a "moderate likelihood of occurring" is understated and provides a clear indication that the survey methodology was insufficient to accurately identify ecological values that will be impacted by the Project.

Latham's snipe and the glossy ibis are migratory species protected under the EPBC Act and listed as a controlling provision. The Proponent acknowledges that there will be impacts to some areas of potential Glossy Ibis and Latham's Snipe habitat which cannot be avoided due to the location of the coal seams. All the Proponent offers is that "impacts to habitat along the ETL study area will be avoided where possible as part of the detailed design and siting of the proposed ETL". The plans and procedures proposed to avoid and minimise impact on the habitat of these migratory bird species are not provided and are still to be developed. This makes it difficult to ascertain the significance of the impacts on these species. EnvA considers that appropriate assessment of the likely impacts on migratory species must be considered prior to any consideration of the suitability of this Project.

Nearly all the coal mine proposals that EnvA has made comment on in the past have involved the clearing of habitat of most of the species identified by the Proponent, indicating that the cumulative impacts of habitat loss are important to consider. Further to this, it is not just the habitat clearing that is pushing these animals towards extinction, it is also impacts of climate change that directly impact upon the populations and their habitats, and the alterations to groundwater dependent ecosystems that many species rely on. The continued clearing and fragmentation of vegetation in the Bowen Basin has resulted in the decline of habitat for these species and is one of the leading causes for their current conservation status.

While all threatened species and communities are critically important to protect from clearing and fragmentation, EnvA is particularly concerned about the rapid decline of koala populations in Central Queensland and the inadequate and misleading assessment of the significance of the impacts to the koala as presented in Table 7.21 in Chapter 7 of the EIS - Flora and Fauna. We note that this table notes that 94.6ha of koala habitat will be cleared for this project which conflicts with the 26.5ha noted in the text and the conclusion presented in the same table. There is also no justification for the statement that the "population of koalas on the project site is not considered to be an important population". We consider that it is now absolutely critical to protect all remaining koala habitat and movement pathways if we are to stop the further decline of koalas within the Bowen Basin. Digging up over 1,211 ha of land is most certainly a land use that will impact on dispersal of all wildlife species.

We further note that s 139(1)(b) of the EPBC Act requires that the federal Minister for the Environment and Water may not make decisions that are inconsistent with a recovery plan. The National Recovery Plan for the Koala[5] identifies important koala habitat as areas with koala food and shelter trees, areas connecting large patches of koala habitat which are safe for koalas to cross, and areas near streams and waterbodies. We consider that this Project will have significant impacts on the koala and this proposed action is inconsistent with the National Recovery Plan for the Koala. Further to this, the Proponent has considered that no offsets will be required for the koala as the impacts are not significant – obviously something we strongly disagree with.

Cumulative impacts

The cumulative impact on terrestrial ecology is poorly considered in the Project's EIS. The Proponent only considers incremental impacts rather than providing any consideration of the cumulative impacts of all the clearing and fragmentation of threatened species habitats and ecosystems of conservation concern.

[5] National Recovery Plan for the Koala (March 2022)

We are also concerned that the Proponent proposes to mitigate cumulative impacts through biodiversity offsets (further comments on this below). It is EnvA's view that offsets cannot reverse biodiversity decline and can never replace the loss and fragmentation of habitat.

Offsets

The Proponent has identified only two species as requiring offsets as Matters of National Environmental Significance (**MNES**): the ornamental snake and *Xerothamnella herbacea,* despite the confirmation of the presence and quantification of squatter pigeon and koala habitat within the Project's footprint area.

Further to this, the Proponent notes that the following MNES will be impacted:

- 1.4ha of Brigalow TEC and further areas of regrowth Brigalow (Table 7.15),
- between 21.9 and 84.7ha of squatter pigeon habitat (different areas presented throughout the EIS),
- 34.9ha of painted snipe habitat (Table 7.20), and
- 26.5ha of koala habitat (Table 7.21).

The conclusion reached by the Proponent for most of the above listed MNES is that "the areas are not critical to the survival of the species" despite these all being listed threatened species due to the cumulative impacts of the clearing of their habitat through their natural distribution, in combination with the increase pressures of the increasing climate change induced weather events and other species-specific threats. The Proponent's conclusion that the residual impact to these species is not significant is not substantiated and definitely not a reason to exempt the Proponent from not having to provide offsets for all these matters.

The Proponent has also identified two matters identified as having a significant residual impact (**SRI**) on Matters of State Environmental Significance (**MSES**):

- 10.1ha of connectivity areas, and
- 2.33ha of waterways providing fish passage.

The Proponent proposes that the offset for the SRI on connectivity areas will be covered by the offset areas proposed for the ornamental snake. This must be considered an averted loss offset[6] which generally result in a net reduction of habitat, and will in no way increase connectivity within the landscape. The alternative proposed is for the Proponent to provide a financial contribution in accordance with the Queensland Environment Offset Policy. A financial contribution is the only offset proposed for the SRI through the loss of waterways providing fish passage.

EnvA firmly believes that offsets are typically of minimal success, short duration, and certainly do not address the cumulative impacts from the loss and disturbance of habitat in areas such as the Bowen Basin. We are also strongly opposed to the concept that any Proponent can just purchase their right to destroy our environment. As presented in the Flora and Fauna chapter of the EIS, the financial contribution for these offsets would be $144,600 which in no way is adequate to replace the loss of habitat, connectivity and the permanent loss of waterway connectivity.

<u>Recommendation</u>

EnvA recommends that the Project be rejected on the basis that the application is clearly unacceptable in respect to the inadequate assessment and acknowledgement of the impacts on threatened species and communities, and the mitigation and offsets associated with the loss of habitat for all the significant species, ecosystems and habitat connectivity.

[6] Environmental offsets do not offset impacts of developments (2020)

The identification of only three species of the fauna requiring offsets is not justified given the lack of detail on the other six threatened species that may be reliant on the Project area as habitat or for movement across the landscape.

Rehabilitation

Over 1,200 ha of land will be impacted by the Project, including disturbance of significant areas of important habitat for threatened species and communities and riparian areas. EnvA considers that the rehabilitation proposed is inadequate and poorly justified given the impacts on significant environmental values.

The Proponent has indicated the rehabilitation objective is to reinstate the land to the previous land use of predominately improved pasture grazing land. We note that the Proponent has not prepared a Progressice Rehabilitation and Closure Plan (**PRCP**) and has only presented an initial feasibility assessment of three Post Mine Land Use (**PLMU**) rehabilitation options:

- Improved pasture grazing, with mine void and highwall 'natural' ecosystems,
- Improved pasture grazing, backfilled mine void, and
- Pumped-storage, hydro-electric scheme and solar power station.

Despite outlining the three PMLU options, the EIS focusses only on the rehabilitation outcome of 'improved pasture grazing with a residual 66ha mine void'. There is no justification for not considering reinstating any habitat for the threatened species and communities that will be displaced by the Project, and no meaningful reasons for not refilling the void other than the financial implications for the Proponent.

The Proponent has agreed to provide a PRCP separate to this EIS process (section 3.1.1 of the EIS submitted). EnvA considers that it is likely that the PRCP will focus on the Proponent's preferred option of retaining a rehabilitation outcome of improved pasture grazing with a residual 66ha mine void, and hence we make the following comments.

The Queensland Government's Mined Land Rehabilitation Policy[7] requires that land disturbed by mining activities is rehabilitated to a safe and stable landform that does not cause environmental harm to achieve PMLU. Where a PMLU is not achievable or able to be sustained, a Non-Use Management Area (**NUMA**) may be approved[8].

NUMA's will not be approved unless the Proponent can demonstrate the proposed treatment of the land meets current best practice management, and:

- rehabilitating the land would cause a greater risk of environmental harm than not rehabilitating, or
- the risk of environmental harm as a result of not carrying out rehabilitation of the land is confined to the area of the relevant resource tenure and it is in the public interest for the land not to be rehabilitated to a stable condition[6].

EnvA firmly believes that the proposed mine void does not meet either of the above-mentioned exemptions. The Proponent notes that the salinity levels within the mine void will increase from 1,500 to 5,560 mg/L in the first 100 years and then continue to increase to 5,850mg/L before reaching equilibrium.

The Proponent is avoiding the rehabilitation of this area for financial reasons only and the retention of a mine void is not in the public interest as:

- the void offers no benefits to the environment of any future land use. It is proposed that fencing may be used to restrict assess to unauthorised people, wildlife and/or stock (section 3.4.4 of the EIS),

[7] Mined Land Rehabilitation Policy
[8] Non-Use Management Areas – Information Sheet

- the water quality within the mine void will become increasingly saline over time and will exceed salinity levels suitability for use by cattle (and most wildlife species) within 100 years, and
- the void will end up being nothing more than another scar on the landscape with the potential to leach or overflow highly saline water into the waterways within the Great Barrier Reef catchment.

Recommendation

EnvA recommends that the Proponent is required:

- to prepare a draft PRCP and make this available for public comment prior to any approval of this Project. We further recommend that the proponent be required to reinstate the threatened species habitat that will be disturbed by the Project and restore and improve riparian habitat as a component of their PRCP.

Water

Surface water

The Dawson River

The Dawson River is located (at its closest point) approximately 2 km west of the Project. The Dawson River is one of six major river catchments within the Fitzroy drainage basin, which drains into the Great Barrier Reef. The Dawson River is subject to seasonal flooding. The Lower Dawson River Sub-Basin (the Project is located within this specific basin) is a water basin for aquatic ecosystems, irrigation, farm supply, aquaculture, stock water, human consumption, primary and secondary recreation, visual recreation, drinking water, industrial use and cultural values.[9] The floodplain of the Dawson River makes up a large proportion of the prime agriculture land in the region, with the area west of the river mapped as Priority Agricultural Area under the RPI Act.[10]

The Proponent proposes that there will be controlled releases from the Project, into the Dawson River catchment when the 'storage capacity of the site water management system is exceeded'. This is more likely to occur during high rainfall and flooding events, which are becoming more frequent due to climate change.

Banana Creek

Banana Creek borders the Project site and is the second largest watercourse in the vicinity of the project. Banana Creek has a catchment area of approximately 1000km^2 at its confluence with the Dawson River. Banana Creek flows into the Dawson River approximately 1 km west of the Project MLA. Flooding of Banana Creek in the vicinity of the Project is heavily influenced by flooding in the Dawson River due to the magnitude of flood flows in the Dawson River catchment.

Floodplain

The EIS notes that the Project is on the boundary of a 1-in-1000 floodplain (meaning that there is a 0.1% probability of flooding in any given year). There is also a portion of the final landform for the Project (rehabilitated land) which is located on the eastern floodplain of the Dawson River.

The EIS notes that to provide probable maximum flood protection to the final landform, a bund will be constructed adjacent to the final void. The Proponent has noted in a public newsletter that while they will "not mine coal within the 1-in-1000 flood plain, some infrastructure and spoil dumps may need to encroach this area".[11] They also note that "final mine designs and plans will aim to minimise or eliminate [intrusion into the flood plain]", however no plans have been seen to date outlining any mitigation measures.

[9] ARC Environmental Solutions. (2023). Baralaba South Project - Environmental Impact Statement. Executive Summary.

[10] ARC Environmental Solutions. (2023). Baralaba South Project - Environmental Impact Statement. Chapter 3 - Rehabilitation.

[11] Baralaba Coal Company. (2024). Baralaba South Fact Sheet - February 2024.

EnvA considers that Surface Water Assessment (**SWA**)[12] is cursory and deficient. It does not provide any predictive modelling or include a considered assessment of the potential impacts of the Project on surface water or quality flowing into the Great Barrier Reef, the drinking water supply for Baralaba and Woorabinda Aboriginal Shire sourced from the Neville Hewitt Weir or the important aquatic ecosystem habitat in the catchment. Agricultural users also have water allocations under the Dawson Vallet Water Supply Scheme and may be impacted from impacts of surface water arising from this Project.

EnvA notes that the Water Quality Objectives (**WQO**) are aligned with Schedule 1 of the 'Environmental Protection (Water and Wetland Biodiversity) Policy 2019', with the Proponent providing details of the performance of the nearby Baralaba North and Dawson coal mines. It is evident that WQO for the Dawson River have been exceeded in respect to electrical conductivity, turbidity and total suspended solids, and phosphorus and nitrogen, and other contaminants during low and high flows in the recent past. Despite this, no measures have been provided to support that the Project will not cumulatively contribute to declined water quality and that there will be no impacts to the drinking water supply for Baralaba and Woorabinda, the quality of water entering the Great Barrier Reef, or the impacts to agricultural water allocations.

Cumulative impacts of coal mine water releases

Coal mine water releases are regulated through Environmental Authorities, although the cumulative impacts from multiple mines of these releases is not considered. Just in the last wet season, there have been multiple and concurrent mine water releases from mines within the same catchment area. New and expanding coal mines will result in further simultaneous releases directly flowing into the Reef catchment area which must be considered in relation to water volume and quality taking into account the cumulative impacts of multiple releases.

In a January 2024 report[13], the Climate Council of Australia noted that Australia is headed into uncharted territory in terms of extreme weather events, noting that "In a rapidly changing climate, historical weather patterns may no longer be the best guide for what's happening, or what's next, as records keep tumbling".

EnvA concurs with these statements from climate scientists, and consider that a much more considered response is needed, including the implications of:

- Extremely significant rainfall events during construction and operation and the implications on surface water quality,
- The cumulative mine water releases on local waterway health and the receiving World Heritage listed marine waters, and
- The proponent's external water demand in the event of an extended drought.

Ground water

Two immediate concerns identified in the EIS are:

- The predicted reduction in flows in the Dawson River and Banana Creek[14], and
- Any changes to flooding patterns or overland flows have the potential to impact groundwater dependent communities that are reliant on sandy lenses that are likely to be maintained by overland flows and flood channels.

The description of aquifer properties relies on numerous studies undertaken in the wider Bowen Basin and on only a limited bore monitoring which have then been extrapolated to the Project. Guidelines are cited within in the Groundwater Assessment that specify site-specific data for aquifers, contaminants,

[12] ARC Environmental Solutions (2023) Baralaba South Project – Environmental Impact Statement. Chapter 4-Surface Water
[13] https://www.climatecouncil.org.au/resources/climate-whiplash-wild-swings-between-weather-extremes/
[14] ARC Environmental Solutions (2023) Baralaba South Project – Environmental Impact Statement. Chapter 5-Groundwater

geological structures, hydraulic parameters and hydrogeological data. The "site-specific" hydrogeological data used for the conceptual model was taken from the Baralaba North mine studies and not from the Project site.

The impact of the maximum drawdown of approximately one metre around the reach of Banana Creek where it flows on the Dawson River on high aquatic ecological values in this area, has not been assessed and hence it is difficult to fully understand the impacts of the water drawdown on the local ecology and in particular, the stygofauna.

The stygofauna assessment provided is outdated as surveys were conducted in 2018-19 on behalf of the previous proponent Mount Ramsay Coal Company. The assessment was restricted to the Dawson River Alluvium within and adjacent to that mining lease. Importantly, the Stygofauna Assessment notes that previous sampling at the same bore sites at Baralaba South in 2014, consisted entirely of two taxonomic groups that were not recorded at all during 2018-19 surveys. This is likely to indicate seasonal or other temporal or physical changes to the stygofauna populations or their environments. Although the assessment states that the ecological risk associated with the Baralaba South Project is low, this is based on rapid assessment of 12 bores over 8 sample periods in 2018-19.

Stygofauna identified to Family taxonomic level were recorded in three bores located close to the Banana Creek/Dawson River near the north-west corner of the mining lease. The results are consistent with those from the Baralaba North extension EIS where stygofauna were recorded in 3 bores and identified to Family level and assessed as being widespread, tolerant of change and therefore not of conservation significance. In its advice, the IESC cautioned that classification to Family level and higher cannot be used to determine the endemism and conservation status of the species identified[15].

The assertion by the Proponent that "slightly elevated concentrations for some metals/metalloids for spoil materials are common at coal mines in the Bowen Basin and generally do not result in any significant water quality issues" is unsubstantiated. In fact, the numerous exceedances for various WQO for aquatic ecosystems in the Dawson River indicates that this is a direct result of multiple mines operating in the local area and the apparently accepted practice of mining companies setting their own WQO triggers rather than relying on published guidelines.

Surface and groundwater are an essential part of connection to Country for First Nations, with water having significant spiritual, ceremonial, social and economic values.[16] The impact of the project on the cultural values of water is not discussed, nor how these impacts may limit the human rights of First Nations people in the region.

Recommendation

EnvA recommends that the Project is refused on the basis of the impacts on water resources, or in the alternative, the Proponent is required at a minimum, provide further information on:

- the potential impacts of the Project on the surface water quality flowing into the:
    - Great Barrier Reef catchment,
    - drinking water supply for Baralaba and Woorabinda Aboriginal Community, and
    - important aquatic ecosystem habitat in the catchment,
- provide details of the water supply for mine operations in periods of drought, and
- the cumulative impacts of multiple coal mines releasing water into the catchment during high rainfall events.

[15] Advice to decision maker on the Baralaba North Continued Operations Project (IESC, 2014)

[16] National Water Reform 2020 - Securing Aboriginal and Torres Strait Islander people's interests in water (Productivity Commission, 2021).

Greenhouse gas (GHG) emissions

Scope 1 and 2 emissions

The Proponent estimates that the Project will release approximately 4,091KtCO_2-e greenhouse emissions over the 23 years of mine operations including fugitive, liquid fuels, and energy emissions[17].

Fugitive gas emissions have been determined using the Method 1 formula for calculating fugitive gas emissions for open cut coal mines as presented in the National Greenhouse and Energy (NGER) Technical Guidelines (2023)[18]. Based on the Method 1 formula, the emission factor for Queensland and the expected quantity of ROM coal to be extracted (2.5 Mtpa), the GHG emissions the Proponent has calculated that 1,507 kt CO_2e of fugitive emissions will be released over the life-of-mine.

The Climate Change Authority's (**CCA**) review of the NGER Scheme[19] has recommended the Method 1 formula be phased out as it has become clear that fugitive emissions are being underestimated[20]. Specifically, Recommendation 15 of the review states: *Phase out Method 1 estimation methodologies for fugitive methane emissions, including as a matter of urgency for the extraction of coal in open cut coal mining*. The Australian Government has indicated that it will respond to the CCA review of the NGER Scheme by mid-2024.

The Queensland government has recently updated its emission reduction targets and has set a new emissions reduction target of 75% by 2035. To achieve this, there must be no expansion of the fossil fuel industry and a rapid decarbonisation of operating mines. The Safeguard Mechanism provides one mechanism to achieve emissions reduction. The Queensland Resource Industry Development Plan and the draft Greenhouse Gas Emissions Guideline (draft GHG guideline) are also relevant.

The Proponent has not provided any detail on how it intends to reduce Scope 1 and 2 emissions other than some very sketchy 'best practice' measures including:

1. Applying best practice to minimise the unnecessary slowing or stopping of heavy trucks,
2. Evaluate the cost effectiveness of engaging in a Power Purchase Agreement with a supplier of renewable energy,
3. Train staff in the energy efficient operating procedures,
4. Investigate offset opportunities within the Carbon Farming Initiative, and
5. Investigate emerging technologies and further efficiencies and support the Australian Coal Industry Research Program.

EnvA does not consider these actions demonstrate that the Proponent has a plan to reduce scope 1 and 2 emissions from the Project in line with the Safeguard Mechanism emission, Queensland's emission reduction target or the Projects decarbonisation target of a 4.9% reduction per year until 2030 (with future targets yet to be established).

Scope 3 emissions

The proponent has determined that 'Scope 3 emissions are not attributable to the Project and that they do not need to be reported under the NGER scheme'. A rough indication of Scope 3 emissions was included in the EIS[17], which indicated that approximately 9.9 MtCO_2e (99,116 KtCO_2e) Scope 3 emissions would be emitted over the life of the Project.

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[17] ARC Environmental Solutions. (2023). Baralaba South Project - Environmental Impact Statement. Chapter 11 - Air Quality, Greenhouse Gas, and Decarbonisation.

[18] Estimating emissions and energy from coal mining guideline (Clean Energy Regulator, 2023)

[19] Climate Change Authority. (2023). Review of the National Greenhouse and Energy Reporting Legislation.

[20] In the dark: underreporting of coal mine methane is a major climate risk (Ember, 2023)

For Scope 3 emissions, the draft Queensland Government guideline on greenhouse gas emissions clarifies that the applicant must:

- outline actions that will be implemented to reduce Scope 3 emissions, such as entering into arrangements with third party suppliers or users; and
- identify the location of emissions (domestic or international) and outline whether they are expected to be subject to similar emission reduction requirements.

The Proponent fails to outline any actions to reduce Scope 3 emissions despite acknowledging the guideline and its role in ensuring that Projects are compatible with human rights.

Recommendations

EnvA recommends that this Project be refused due to the significant emissions that will result from the activity. Alternatively, the Proponent must be required to:

- develop a draft Greenhouse Gas Abatement Plan that provides best practice mitigation measures for GHG emissions that demonstrates that all reasonable and practical measures have been applied to avoid and mitigate emissions through best practice design, process, technology, and management,
- thoroughly assess the Project's compatibility with the emissions reduction required to meet Queensland and Australia's emissions targets,
- provide a comparison of expected project greenhouse emissions with the remaining global, national and state emissions budget, as outlined in the draft GHG guideline, and
- provide a meaningful analysis of the economic, social and environmental cost-benefit of this project to justify the project proceeding given the significant contribution to emissions (further comments on this below).

Social and Economic Impacts

The Proponent falls short in adequately addressing the social and economic impacts of the Project on the local and regional community, but rather promotes the economic benefits to the Proponent and associated taxes and royalties with minimal assessment of the social and economic costs.

The Queensland Government's position is that "coal projects in Queensland will continue to be supported as long as they stack up economically, environmentally, and socially". Each project must proceed on its own merits, based on demand and economic viability, and meet the highest environmental and community standards. The application for the Project does not provide a reasonable assessment on which to base a decision that the mine 'stacks up' when the impacts on communities, agricultural land and the environment are properly taken into account.

There are a number of matters that are relevant to this statement which are outlined below.

Coal quality

The coal at Baralaba South is pulverised coal injection (PCI) coal which is basically a high quality thermal coal. It is the poorest quality coal that can be used in metallurgical applications and will be the first 'metallurgical coal' to be replaced in decarbonising steel industry[21]. The demand for PCI coal is not likely to remain strong as claimed in the EIS nor provide the estimated revenue. By way of example, Bowen Coking Coal recently placed their Bluff Coal Mine into care and maintenance as prices for PCI coal are falling and costs are rising[22] .

Loss of prime agricultural land

The Baralaba region is a highly productive agricultural area producing crops such as mung beans, lychees, sorghum, wheat, cotton and beef. The total project disturbance area of the Baralaba

[21] https://ieefa.org/resources/pci-coal-steelmaking-first-metallurgical-coal-grade-be-impacted-decarbonisation

[22] Bluff mine to close by end of year as prices fall and costs rise

South coal mine, including off-lease infrastructure, encompasses approximately 1,279 ha of agricultural land.[23]

Queensland's best cropping land is defined and zoned as Strategic Cropping Land (**SCL**), the Baralaba South coal mine would impact on 556 hectares of SCL that is within the project disturbance area.[23] The EIS also notes that agricultural crops are grown as close as 500m from the boundary of the Mining Lease Area, and that crops will be impacted by dust at a rate of 64 mg per square metre a day.[23]

Climate impacts on human rights

The Proponents' fails to consider the social costs of exacerbating climate change and its failure to offer strategies to mitigate the Project's climate-related impacts.

This Project will contribute emissions leading to accelerated global climate change. Extreme weather effects are already impacting Central Queensland in the form of increased temperatures, more extreme and severe heatwaves, bushfires, damaging storms and bleaching of the Great Barrier Reef. Many of these climate related impacts risk the health of all people in our region, especially outdoor workers and those who have underlying health issues. All additional emissions from new and expanding fossil fuel developments will impact on the health of Queenslanders, regardless of where the coal is burned.

Further to this, PCI coal has no benefit to Queenslanders or Australians in our transition to a clean energy future. The Project will have no demonstrated environmental or social benefit and the economic benefit is purely through some royalties which do not stack up in the costs of recovery from the extreme weather events to the public or private economic costs.

The financial, legal, and fiscal risks of climate change are well understood. Additional emissions of GHGs into the atmosphere will cause financial, legal, and fiscal risks and costs, which must be set off against any economic benefits of any development that will further contribute to the accretion of GHGs into the atmosphere.

We also note the Queensland Land Court (*Waratah Coal v Youth Verdict*) decision that there is a clear and pressing threat to the right to life that is now experienced by people in Queensland as a result of climate change. This project would make a material contribution to exacerbation of this threat. The draft guidelines on assessment of greenhouse gas emissions clarify that "Several human rights are potentially engaged as a result of greenhouse gas emissions now and into the future. These include the right to life, the cultural rights of Aboriginal peoples and Torres Strait Islander peoples, the rights of children, the right to property and to privacy and home, and the right to enjoy human rights equally." The current EIS does not take any of these considerations into account.

The Proponent's EIS claims benefits around employment and local and regional economic activity but provides no substantiation to back up these claims, and indeed, ignores potentially significant negative social and economic impacts.

Community concerns

The community of Baralaba and surrounds have been opposing the Baralaba South coal mine for over a decade. In 2020, a community group (Save the Dawson) conducted a survey that found 97% of the local community were opposed to the project.[24]

Despite the revised mine plan and reduced coal extraction rates the community remains opposed to the Project with the same concerns about the impacts on the Dawson River, the loss

[23] ARC Environmental Solutions. (2023). Baralaba South Project - Environmental Impact Statement. Chapter 10 - Land and Visual Amenity.

[24] Community opposes Baralaba South Mine plans to build on flood plain and prime agricultural land. (Stunzer, I. and McGhee, R., 2020).

of prime agricultural land, and the impacts on the water allocations and water quality that this Project would cause.

Potential for stranded assets

Given the observed and likely ongoing decline in demand for PCI coal, EnvA has significant concerns that the project may become a stranded asset, which would leave employees and local and regional businesses abandoned. A more thorough evaluation of the implications of this for local and regional businesses is required.

Concluding recommendations

EnvA strongly recommends that this project be refused as it is clearly unacceptable. We consider that this Project is an easy coal mine to refuse:

- it is a greenfield project with significant direct and cumulative impacts to threatened species and communities, and impacts on migratory bird species,
- it threatens the water quality for drinking water supplies for local communities and the water quality entering the Great Barrier Reef,
- there are significant social and socio-economic impacts and there is no community support or social licence associated with the Project,
- it does not stack up on any, economic basis given the quality of the coal to be produced when compared to the environmental and social costs associated with the Project, including a significant risk of this mine to become a stranded asset, and
- the greenhouse gas emissions are significant and there is no credible justification for these emissions. These emissions will lead to impact on nearly all Matters of State and National Environmental Significance, and will also impact on all Queensland and Australian communities through climate change induced severe weather events and increased recovery and insurance costs.

Thank you for the opportunity to make a submission on the proposed Baralaba South Coal Mine EIS.

Yours sincerely,

Dr Coral Rowston and Dr Claire Gronow
On behalf of Environmental Advocacy in Central Queensland