Hon Tanya Plibersek MP
Minister for the Environment and Water
c/- Department of Climate Change, Energy, the Environment and Water

17 November 2022

Dear Minister,

RE: Support for the reconsideration of the Lake Vermont Meadowbrook Coal Mine Project, Qld (EPBC 2019/8485)

Environmental Advocacy in Central Queensland **(EnvA)** considers that there is substantial new information available about the impacts the Lake Vermont Meadowbrook Coal Mine Project **(the Project)** has, will have and is likely to have on matters protected under Part 3 of the Environmental Protection and Biodiversity Conservation Act 1999 **(EPBC Act)**.

EnvA is a Central Queensland association concerned about the risks associated with coal mining, coal seam gas and climate change.

EnvA believes that decisions to allow the opening new and expanding coal and gas projects:

- are contrary to meeting Australia's emission targets and Queensland's emission targets,
- are 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, wetlands 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,
- will place additional conservation pressure on threatened wildlife through heat related stress and from the more frequent and severe extreme weather events such as drought, fire, storms and floods, and
- rarely take into consideration the views of Traditional Owners and local communities who are concerned about protecting their land from fossil fuel development.

The Project

Bowen Basin Coal proposes to develop an underground longwall (plus bord and pillar) mine, three open-cut mine pits and associated infrastructure. The Project is a proposed extension of the existing Lake Vermont Coal Mine.

The Project has been identified as a controlled action under the EPBC Act. The relevant Matters of National Environmental Significance **(MNES)** identified were:

- listed threatened species and communities (EPBC Act, sections 18 and 18A),
- listed migratory species (sections 20 and 20A); and
- a water resource, in relation to coal seam gas development and large coal mining development (sections 24D and 24E).

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The reconsideration request

Approximately 5.5 million tonnes of metallurgical and thermal coal will be extracted over 25 years, or approximately 137.5 million tonnes of coal over the life of the Project. The total CO2-e emissions for the Project is estimated to be about 334 million tonnes[1]. These emissions will make a tangible contribution to climate change.

The impacts of the Projects GHG emissions are the subject of the reconsideration request made by the Environmental Council of Central Queensland **(EcoCeQ)**. The request is based on substantial evidence that climate change is a significant threat to the already identified MNES along with most other MNES.

The information on the impacts of climate change provided with the reconsideration request was not considered at the first decision for the Project and must be included in the reconsideration process.

Significant impact of greenhouse gas (GHG) emissions on MNES

The Project will emit GHGs which, cumulatively will increase global temperatures, resulting in significant adverse impacts to MNES as identified in the substantial new information.

Australia, and of particular concern to EnvA, Central Queensland (where this mine is proposed), is already experiencing climate change impacts that include an increased frequency and severity of coral bleaching, storms, heat waves and wildfires, and an increase in the number of endangered species and ecosystems. If warming increases to 1.5°C and above, these impacts will increase in severity.

Therefore, it is our submission that the GHG emissions of this Project, and the warming effect of those GHG emissions, will have a significant impact on the following MNES which need to be included as controlling provisions:

(a) World Heritage (ss 12 and 15A);
(b) National Heritage (ss 15B and 15C);
(c) Ramsar Wetlands (ss 16 and 17B);
(d) Listed threatened species and communities (ss 18 and 18A);
(e) Listed migratory species (ss 20 and 20A);
(f) Commonwealth marine areas (ss 23 and 24A);
(g) Great Barrier Reef Marine Park (ss 24B and 24C); and
(h) Water resources (ss 24D and 24E).

The specific details and context of the direct and indirect impacts the Project will have on each relevant MNES in Central Queensland is detailed further below.

Significant Impact on Declared World Heritage Properties

The Project's GHG emissions and resulting contribution to climate change will significantly and adversely impact on the Great Barrier Reef World Heritage Property. Climate change has been identified as the greatest threat facing the Reef.

The World Heritage Committee is considering relisting the Great Barrier Reef as Endangered following multiple mass bleaching events over the last few years. It is critical that the Reef is protected from climate change which requires immediate and urgent action to reduce GHG emissions to maintain warming to 1.5°C.

The impacts from the proposed 334 million tonnes of GHG emissions on the Great Barrier Reef must be considered for this Project.

Also note the section on impacts to the Great Barrier Reef Marine Park below.

[1] Determined using an estimate of total product volume of coal x 2.4.

Significant Impact on National Heritage

The Project's GHG emissions and resulting contribution to climate change will have a significant impact on multiple Australian National Heritage sites as identified in the new information.

Of particular interest to EnvA is the highest level of protection for the Great Barrier Reef which is on our doorstep and a valuable economic and recreational asset in our region.

Another Queensland National Heritage site which will be significantly impacted by climate change is the Wet Tropics of Queensland. Climate change presents a danger to the region's biodiversity and associated endemic species. Weather changes brought on by climate change could seriously affect plant and animal species vulnerable to a warmer and more variable climate. More frequent and severe heatwaves could have rapid, catastrophic impacts on tree-dwelling mammals in some high elevation locations, and the risk of more intense cyclones could further disrupt ecosystem structure and function.[2]

The above examples demonstrate that GHG emissions and their influence on global warming and the resulting impacts of climate change are a serious threat to National Heritage sites across Australia.

Significant Impact on Ramsar Wetlands

The Project's GHG emissions and resulting contribution to climate change will have a significant impact on Ramsar Wetlands. Climate change has the potential to cause degradation and lead to the reduction or loss of the critical services and benefits of Ramsar Wetland sites in Australia.

Of particular interest to EnvA is the Shoalwater and Corio Bay Ramsar listed wetlands. The site is one of the largest and most ecologically rich coastal wetland sites in Queensland. This near pristine area covers over 200,000 hectares and stretches along 330 kilometres of coastline here on the central Queensland coast. The wetlands are especially rich in wildlife because tropical and subtropical species overlap on Queensland's central coast. Many wetland types are found in this Ramsar Wetland including:

- fringing coral reefs
- shallow open water with seagrass beds
- rocky shores, beaches and sandbars
- intertidal mudflats and sandflats
- mangrove forests and melaleuca woodland, and
- freshwater lagoons, swamps and streams on elevated sandplains[3].

Extended drought means vegetation loss and reduced amounts of open water which reduces the availability of waterbird habitat. Reduction of water volumes and flood frequency may also lead to stagnation of wetlands and changes to nutrient cycling.

Climate change will impact all elements of the water cycle of the region. Reduced rainfall and hotter temperatures produce less water for rivers and storages. Drier soils result in less run-off to waterways, and more evaporation occurring from rivers, channels and storages.

All Ramsar Wetland sites will be significantly impacted by climate change as identified in the substantial new information provided with the reconsideration request.

Significant impact on listed threatened species and communities

The Lake Vermont Meadowbrook Project Initial Advice Statement (2019)[4] identifies numerous threatened ecosystems and plant and animal species. EnvA believes that the direct impacts from clearing hundreds of hectares of land on listed threatened species and communities alone are unacceptable, and when the additional identified impacts from climate change are considered, this Project should not proceed.

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[2] Queensland Government, *Climate Change Pressure on the Wet Tropics of Queensland* (September 2021).
[3] https://rsis.ramsar.org/ris/792
[4] https://jellinbah.com.au/wp-content/uploads/20191126_Meadowbrook_IAS_v3.5_Final.pdf

The Minister should consider the impacts of climate change on all threatened species and ecosystems are considered along with the direct impacts from habitat loss if we are to improve our State of the Environment[5].

Significant Impact on listed migratory species

Climate change threatens 158 migratory species protected in Australian waters under international agreements[6], including mammals such as dugongs, whales and dolphins, migratory birds, reptiles such as marine turtles, and sharks – many of which occur in Central Queensland.

The referral of the proposed action submitted by Bowen Basin Coal (2016)[7] identifies that 15 listed migratory species may occur in or around the Project area and four of these are known to use the habitat values of the Project site. However, the new information now available makes it clear that the Project will have a significant impact on many listed migratory species due to the GHG emissions it will produce and contribute to accelerated climate change.

By way of examples of migratory species likely to be significantly impacted by climate change here in Central Queensland:

- Fluctuations of dugong numbers appear to track major changes in the status of the dugong's food supply (seagrass) which is subject to episodic diebacks which is often associated to extreme weather events.
- Listed sea turtles lay their eggs on our local beaches. Researchers have also noted that the warmer the sand, the higher the ratio of female turtles. As the Earth experiences climate change, increased temperatures could result in skewed and even lethal incubation conditions. Climate change scenarios also predict reduced nesting habitat for sea turtles through rising sea levels and increased storm erosion, and the increase in coral bleaching and burning of seagrass will reduce the turtle's food source.
- Many of the migratory waders and shorebird species that visit our Central Queensland wetlands and foreshores will be impacted by climate change. Changes in sea levels, habitat quality and ocean food supply during their migration will have a significant impact on these internationally important species.

Significant Impact on the Great Barrier Reef Marine Park

The Project's GHG emissions and resulting contribution to climate change will have a significant impact on the environment in the Great Barrier Reef Marine Park (GBRMP).

More specifically, the impacts on the Great Barrier Reef of global warming increasing above 2°C have been predicted with very high confidence to include annual bleaching which will result in 'widespread decline and loss of structural integrity'.[8]

The State Party Report on the conservation of Australia's Great Barrier Reef recognises that climate change is the biggest threat to the Reef, and that reducing emissions is the most effective response to that threat.[9] In addition, a Position Statement released by the Great Barrier Reef Marine Park Authority in 2019, notes that:

"Climate change is the greatest threat to the Great Barrier Reef. Only the strongest and fastest possible actions to decrease global greenhouse gas emissions will reduce the risks and limit the impacts of climate change on the Reef. Further impacts can be minimised by limiting global temperature increase to the maximum extent possible and fast-tracking actions to build Reef resilience".

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[5] State of the Environment Report (2021)
[6] EPBC Act Migratory Species list
[7] Referral of the proposed action for the Lake Vermont Northern Extension Project (2016)
[8] IPCC, 2022: Technical Summary. In *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, p 25.
[9] State Party Report on the state of conservation of the Australia's Great Barrier Reef, 2022

Significant Impact on Water Resources

This Project has the potential to impact surface water resources through direct disturbance associated with open cut mining, diversion of drainage features, creation of new temporary and permanent landforms that affect flood waters and (if required) through release of water to the surrounding environment.

The Project's GHG emissions and resulting contribution to climate change will also have a significant impact on water resources. Climate change threatens Australia's water resources, as rainfall patterns are shifting, and the severity of floods and droughts has increased.

Droughts are becoming more severe due to drier, hotter conditions, leading to declines in soil moisture due to increased water loss from plants and soils. Reduced rainfall and hotter conditions have led to less runoff into streams, rivers, lakes and dams, which results in a loss of freshwater and riparian habitat and a loss of connectivity between waterways. The consequences for freshwater species and threatened species that are reliant on riparian vegetation (particularly in drought times) are projected to be severe.

Conversely, the potential for contamination of local waters through significant run-off and controlled releases during severe storm and flood events increase as the impacts of climate change become more frequent and severe. This threatens the water quality of local streams, rivers and lakes, with the contaminated water finally entering the highly significant marine environment.

CONCLUSION

The GHG emissions and resulting climate change impacts of the Project are likely to have a significant impact on a number of MNES.

We submit that the Minister should find that the Project is a controlled action with the following applicable controlling provisions, and that the proponent be required to appropriately assess the 'real' impacts of this Project:

(a) World Heritage (ss 12 and 15A);
(b) National Heritage (ss 15B and 15C);
(c) Ramsar Wetlands (ss 16 and 17B);
(d) Listed threatened species and communities (ss 18 and 18A);
(e) Listed migratory species (ss 20 and 20A);
(f) Commonwealth marine areas (ss 23 and 24A);
(g) Great Barrier Reef Marine Park (ss 24B and 24C); and
(h) Water resources (ss 24D and 24E).

Thank you again for the opportunity to make a submission on this reconsideration.

Kind regards

Dr Coral Rowston
Director
Environmental Advocacy in Central Queensland