

Department of Environment, Science and Innovation
Attention: Manager (Assessment)
Energy and Extractive Resources Business Centre
GPO Box 2454
Brisbane, QLD 4001

Email: EnergyandExtractive@des.qld.gov.au

27 May 2024

Dear Manager – Assessment,

RE: Submission the Comet Ridge Mahalo North CSG Project – A-EA-NEW-100521948

Thank you for the opportunity to make this submission in response to the public notification of the environmental authority application (**the EA Application**) for the Mahalo North Coal Seam Gas Project (**the Project**) by Comet Ridge Mahalo North Pty Ltd (**the Proponent**).

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.

EnvA is deeply concerned about this Project and the significant harms it will cause due to its contribution to greenhouse gas (**GHG**) emissions causing climate change, impacts to biodiversity, groundwater and surface water.

We also hold concern that the harms caused by the Project have not been appropriately assessed in the EA Application materials provided by the Proponent and that the project is inconsistent with human rights including the right to property and the right to privacy and home.

Our key concerns are further outlined below.



GREENHOUSE GAS EMISSIONS

This Project will result in approximately 2.5 million tonnes of CO₂ over its lifetime.

We cannot continue to increase the production of greenhouse gasses through new gas projects if we are to have a chance of meeting legislated State and Federal climate targets. The opening of new coal and gas threatens our environment, our unique biodiversity and our future climate.

Any economic benefit of the Project is also vulnerable to climate change impacts itself, including the risk that it may not be able to operate at optimal levels for its full expected lifespan due to factors including increased frequency of extreme weather events and changes to water availability as a result of prolonged droughts.

The risks of any fossil fuel based-development's assets becoming stranded will likely continue to increase due to changes in global policies and international action on climate change.

GROUNDWATER AND SURFACE WATER

The Project is located within the Comet River catchment which is part of the Fitzroy River Basin – the largest catchment flowing into the Great Barrier Reef. The overall Project area is intersected by 17 streams, Humboldt Creek and adjacent to the Comet River. A wetland of high ecological significance and surrounding trigger area is mapped in the northern portion of the Study area.

The Project will cause long standing impacts to ground and surface waters in the region and poses an unacceptable risk to these resources. Further there is not sufficient information provided to properly understand the risks to the water resources or the identified wetland.

Extraction of large volumes of groundwater poses significant risk to aquifers and existing users in the region through the risk of causing connectivity between aquifers, contamination, and over extraction.

The Proponent is proposing to withdraw large amounts of groundwater (1,100 ML) from the Bandanna Formation in order to extract gas. The proponent claims that this withdrawal will not affect groundwater in shallower layers of rock due to the presence of the Rewan Group that is recognised as having very low permeability (i.e. an aquitard). However, the Rewan Group is thin or not present at all in places within the Project Area.

In the case of the Towrie Gas Project (that also underlies the Rewan Group), the IESC advised that, in order to confirm critical assumptions relating to the aquitard characteristics of the Rewan Group (i.e. that it is an effective aquitard), it is necessary to obtain site-specific data on hydraulic properties, in particular vertical hydraulic conductivity.¹ It is unclear from the documentation whether site-specific coring and seismic surveys of the Rewan Group were conducted. The IESC also advises that modelling uncertainty analysis should consider whether site-specific hydraulic properties fall outside the range of uncertainty analysis used by Office of Groundwater Impact Assessment.

Comet Ridge has failed to properly assess the impacts to surface and groundwater impacts in its EA Application as the assessment is overly reliant on general data and modelling and has not undertaken site specific, localised assessment. Comet Ridge's assessment further fails to account for the impacts of subsidence on surface flows.

Although the horizontal hydraulic conductivity data for the study was calculated using a study by

¹ IESC (2021). Advice to decision maker on Towrie Gas Development (Queensland) (EPBC 2021/8979) <https://www.iesc.gov.au/sites/default/files/2022-07/iesc-advice-towrie-gas-2021-130.pdf>

Golder (2018)² for Comet Ridge Ltd, this report was not provided in support of the referral documentation and hence it is difficult to appropriately make detailed comment on the impact on water resources.

BIODIVERSITY

Impacts of the Project to listed species and ecological communities

The Project will cause significant impacts and unacceptable risks to important biodiversity values in the region. These impacts include:

- (a) the clearing of up to 178ha of native vegetation for Project's infrastructure resulting in loss of habitat and fragmentation of the landscape,
- (b) significant impacts to at least 10 listed species and communities under the *Queensland Nature Conservation Act 1992 (NC Act)* and/or the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* (further discussed below),
- (c) impacts to water ways including declined water quality for aquatic species and groundwater dependent ecosystems,
- (d) the introduction and spread of pest species and increased dust due to human, vehicle and machinery movement and disturbance of land in pest infestation areas,
- (e) increased risk of fire in the nearby 2000ha of native vegetation through unplanned gas pipe leakage (as was experienced at the Jemena Queensland Gas Pipeline near Bauhinia Downs³), and
- (f) the increased emissions leading to more frequent and extreme weather events.

The project area supports the following listed ecological communities:

- 324ha of remnant brigalow woodland and 31ha of regrowth brigalow woodland (Endangered under the NC Act and an Endangered threatened ecological community (TEC) under the EPBC Act),
- 105ha of remnant blackwood woodland (Endangered under the NC Act), and
- 1181ha of remnant poplar box woodland and 289ha of regrowth poplar box woodland (an Endangered TEC under the EPBC Act)⁴.

Listed species considered to be present or likely to be present include:

- Annual wiregrass (*Aristida annua*) (Vulnerable under the NC Act and the EPBC Act),
- Ooline (*Cadelia pentastylis*) (Vulnerable under the NC Act and the EPBC Act),
- Bluegrass (*Dichanthium setosum*) (Vulnerable under the EPBC Act),
- Short-beaked echidna (*Tachyglossus aculeatus*) (Special least concerned under the NC Act)
- Koala (*Phascolarctos cinereus*) (Endangered under the NC Act and the EPBC Act),
- White-throated Snapping Turtle (*Elseya albagula*) (Critically Endangered under the NC Act and the EPBC Act), and
- Ornamental snake (*Denisonia maculata*) (Vulnerable under the NC Act and the EPBC Act).

² Golder (2018). Groundwater Technical Report, Report Comet Ridge Mahalo Gas Project 1790852-005-Rev B. Prepared for Comet Ridge Limited.

³ [Landholders say Bauhinia Downs gas pipeline explosion shows CSG not with the risk.](#)

⁴ Table 7 of the Ecological Assessment Report for the Mahalo North Coal Seam Gas Project.

Failure to appropriately assess impacts to protected biodiversity

The Proponent has not appropriately assessed the impacts of the Project on biodiversity, and absent further assessment. For example, the field surveys were undertaken in April 2022 and February 2023. There were no surveys undertaken in spring-early summer as specified in the fauna survey guideline for Queensland.⁵

The proponent has also identified a number of listed species which may possibly occur on the site, but the survey effort was not sufficient to determine if the species were present, or if the Project area is important for the movement or seasonal use of these species.

The indirect impacts of the clearing and cumulative impacts of drilling and associated activities in close proximity to sensitive areas have not been adequately considered and are likely to be significant, especially where infrastructure is proposed close to waterways or endangered communities. This region has previously been subject to significant clearing, and consequently the remaining remnant vegetation is of increased value and significance from a conservation perspective.

The Proponent notes that there has been significant historic vegetation clearing in the area, but has failed to consider the cumulative impacts on listed species and communities. We also note that there were errors in the identification of the conservation status of some listed species and communities.

EnvA strongly recommends that this project is referred for assessment under the EPBC Act due to the potential significant impacts on water resources, listed species and communities, and the Great Barrier Reef.

We further recommend that detailed water and ecological studies are required to best inform any decision under the EP Act.

Thank you for the opportunity to make comment on the proposed Comet Ridge Mahalo North Coal Seam Gas Project.

Yours sincerely,



Dr Coral Rowston

Director

Environmental Advocacy in Central Queensland

⁵ (Eyre et al. 2022). Terrestrial vertebrate fauna survey guidelines for Queensland.
<https://www.qld.gov.au/environment/plants-animals/biodiversity/vertebrate-survey>