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8 June 2025

Re: Submission on the application for a major amendment to Environmental Authority (EPML00661913) relating to an extension of the Hail Creek Open Cut coal mine (Application: A-EA-AMD-100576264)

Thank you for the opportunity to make this submission in response to the application by Hail Creek Holdings Pty Ltd (**the Proponent**) to amend Environmental Authority EPML00661913 under the *Environmental Protection Act 1994* (Qld) (**the EP Act**). The proposed Eastern Margin Extension Project (**the Project**) would provide for the extension of the Hail Creek Open Cut Coal Mine (**HCOC**).

For background, 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.

The Eastern Margin Extension Project

The Proponent has applied for a major amendment to the Environmental Authority (EPML00661913) for the HCOC mine to expand the disturbance footprint print of existing Pits, one new Pit and a haul road realignment. These are summarised as:

- Kemmis Pit: an additional 6.3ha,
- Exevale Pit: an additional 136.6ha,
- Carrinyah Pit: an additional 395.99ha,



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- a new Homevale Pit of 136.6ha which also requires a diversion of Hail Creek, and
- the realignment of the existing haul road: an additional 5.4ha.

The HCOC mine is an open cut coal mine on MLs 4738 and 700026 and mining of a maximum of 20 million tonnes Run of Mine (RoM) coal per annum. The mine has an approved life of mine (**LOM**) to 2040.

The Proponent claims that the approved production rate or life of mine will not change from the approved EA, although the proposed mining schedule will extend:

- the operational life of the Coal Handling and Processing Plant from 2035 to 2043,
- the rehabilitation of the site from 2037 to 2043, and
- the free draining of external draining areas from 2039 to 2047.

EnvA also notes that the Project will enable an additional 28.9 Mt ROM coal to be mined, producing an additional 24 Mt product (saleable) coal, despite the claims to retaining the production rate and LOM. The saleable coal is estimated to be 69% metallurgical (coking) coal, and 31% thermal coal.

EnvA's key recommendations

EnvA firmly believes that the application should be refused because the proposed Project:

- does not improve the total quality of life, either now or in the future, in a way that maintains the ecological processes on which life depends in accordance with ss 3 and 5 of the EP Act,
- is inconsistent with the standard criteria (SC) under Schedule 4 of the EP Act,
- is not compatible with human rights and is therefore unlawful under the *Human Rights Act* 2019 (Qld) (**HR Act**),
- will adversely affect threatened species and ecosystems,
- will negatively impact surface and groundwater in the region, and
- will contribute to greenhouse gas (**GHG**) emissions which will contribute to the above mentioned matters.

Further detail in support of our recommendations is provided below.

Grounds for submission

Terrestrial ecology

The area proposed to be directly disturbed for the Project is 685ha. As identified in the Coordinated assessment committee (CAC) report¹, this disturbance will impact on Matters of State Environmental Significance (MSES) and Matters of National Environmental Significance (MNES):

- 275.11ha of Regulated Vegetation (MSES, Of Concern)
- 49.05ha of Vegetation Associated with a Watercourse (MSES)
- 603.54ha of Connectivity area (MSES)
- 600.17ha of Squatter Pigeon habitat (MSES and MNES Vulnerable)
- 599.55ha of Koala habitat (MSES and MNES Endangered)

¹ Coordinated assessment committee (CAC) recommendation on the requirement for an environmental impact assessment statement (EIS) decision – 4 March 2024

We further note that the Environmental Assessment report further identifies impacts or potential impacts on threatened species and communities that are known to occur within the Project area including (but not limited to):

- 0.5ha of black ironbox (Eucalyptus raveretiana)
- 16.9ha of greater glider (Petauroides volans) habitat
- 83.5ha of ornamental snake (Denisonia maculata) habitat
- 4ha of Brigalow (Acacia harpophylla dominant and co-dominant) TEC
- Semi-evergreen vine thickets of the Brigalow Belt TEC

Despite some avoidance measures, significant impacts on these threatened species and communities will still occur. The Proponent argues that these impacts will not result in significant residual effects—yet fails to account for the broader, cumulative effects of ongoing land clearing across the region.

The region has already been extensively cleared for mining and agriculture. Continued fragmentation of remnant vegetation places remaining species and ecosystems at increasing risk. HCOC has previously cleared thousands of hectares for its operations, as have neighbouring coal mines. The proposed clearing for this Project cannot be assessed in isolation. Habitat loss and fragmentation are key drivers of species decline and extinction. The recent reclassification of the koala and greater glider as 'endangered' underscores the urgency of considering cumulative impacts in decision-making.

The Project will also remove koala habitat that intersects with a Statewide Biodiversity Corridor, which connects to Homevale National Park. While the Proponent acknowledges the loss of 603ha of connectivity habitat, the proposed offset does not match the lost area or ecological quality. This again demonstrates the inadequacy of offsets in addressing the cumulative impacts of fragmentation and corridor loss.

The Proponent relies heavily on biodiversity offsets to justify significant ecological harm. However, offsets cannot adequately replace habitat critical to the survival of endangered and vulnerable species such as the koala, greater glider, squatter pigeon, and ornamental snake. Even when offsets meet policy requirements, there is often a substantial time lag between habitat destruction and the establishment of viable replacement habitat.

EnvA also has serious concerns about the overall effectiveness of biodiversity offsets. Since the introduction of the Queensland Environmental Offsets Policy in 2014, biodiversity indicators—including vegetation extent and condition, and numbers of listed threatened species and ecological communities—have all continued to decline.²

Rehabilitation

Very little information has been provided about rehabilitation of the Project, despite its importance in mitigating long-term environmental impacts, particularly on water resources and terrestrial ecosystems. A Progressive Rehabilitation and Closure Plan (PRCP) has not been made available for review, despite being a requirement for new EA applications. While not currently required for expansion projects, this is a regulatory gap that should be urgently addressed through amendment of the Environmental Protection Act 1994 to ensure PRCPs are required for all coal mining expansions.

It remains unclear how many final voids the Project will create or extend. At least one additional void will be created in the Homevale Pit. Three of the four final voids associated with the Project are proposed to be left unfilled, with the Proponent citing economic infeasibility—yet no economic assessment has been provided to support this claim.

² Set and forget: How offsets under national environmental law drive habitat destruction, 1 May 2024

If the Project is only economically viable by externalising the environmental cost of unrehabilitated voids, then it fails to meet the basic test of sustainable development. Projects that cannot "stack up" socially, environmentally and economically should not proceed.³

In summary, the Project will result in significant, irreversible damage to critical habitats and species already at risk from cumulative landscape-scale threats. The reliance on offsets, in the absence of genuine avoidance and meaningful rehabilitation commitments, is insufficient to justify further habitat destruction. This Project must not be approved without a full and transparent evaluation of cumulative impacts, proper rehabilitation planning, and enforceable commitments to environmental protection.

Water

Surface water

The Project will cause further permanent changes to hydrology, including a diversion of 1.5km of Hail Creek and the construction of additional levees and drains to protect pits and final voids from water ingress. Although final void arrangements are not clearly described, at least three permanent voids will result from the expansion. The Project will also extend current impacts on water resources, including water take and discharges, for an additional four years.

The Proponent indicates that there will be water discharges from the HCOC mine and the Project from 500 to 2,000 ML/year for the duration of mining activities⁴. However, these estimates appear inconsistent with recent data. In early 2025, HCOC reported water releases over just eight days from two release points (RPs) ⁵:

- 6-7 February 2025: 15,499 l/s from RP1, and 3070 l/s from RP7, and
- 31 March 5 April 2025: 3070 l/s from RP1, and 16,160 l/s from RP7.

Although the Proponent reported that salinity levels were compliant with their EA, these discharge volumes suggest the operation is near the threshold of non-compliance. This raises concerns about the reliability of the Proponent's discharge estimates and the adequacy of current water management systems.

In the context of climate change—specifically, the increasing intensity and frequency of extreme weather events—there is an elevated risk of uncontrolled mine water discharges from many coal mines. During the last wet season, multiple concurrent mine water releases were reported across the Reef catchment⁸. Without stringent controls, the cumulative impact of expanding and new coal mines will likely contribute to water quality degradation in waterways that flow directly into the Great Barrier Reef.

Hail Creek diversion

EnvA notes that DETSI requested further detail in relation to the extent of erosion and scouring in the Hail Creek diversion, and the four additional drainage features that are required to prevent ingress of surface waters to pits.

While the Proponent responded, they did not demonstrate compliance with the Australian Coal Industry's Research Program (ACARP) guidelines⁶. Instead, the response stated that: "exceedances are generally confined to localised locations and average values for bed shear stress, stream power, and velocity along the proposed drainage features are generally below the ACARP Guideline criteria."

³ Queensland Resources Industry Development Plan (2022)

⁴ Hail Creek Open Cut Eastern Margin Extension – Surface Water Assessment (29 April 2025)

⁵ Fitzroy Basin coal mine water releases

⁶ ACARP (2002) Bowen Basin River Diversions Design and Rehabilitation Criteria.

Use of the term "generally" in this context does not meet the standard expected under the precautionary principle. These diversions, which will become permanent hydrological features of the sub-catchment, must be designed to be self-sustaining in perpetuity. Available analysis shows that erosion and scouring are likely to occur over time, resulting in ongoing degradation—including the release of fine sediment into the downstream catchment and the Great Barrier Reef.

We recommend that the Hail Creek diversion not be approved. Instead, all mine pits should be fully backfilled and rehabilitated to support the development of a stable post-mining landform.

Brumby Waterhole

Brumby Waterhole is a permanent surface water feature located on a tributary of Hail Creek, approximately 1.2 km from the Exevale pit. It holds significant cultural value for the Widi Traditional Owners. Proposed new mining areas—including the Homevale Pit and the northern extension of the Exevale Pit—are situated within 500 m of the waterhole.

The Proponent's commissioned groundwater assessment⁷ concluded that Brumby Waterhole is a surface water–fed feature and not reliant on groundwater. Based on this, the report suggests the mine is unlikely to affect water levels in the waterhole.

However, we note that the Independent Expert Scientific Committee (IESC)⁸ has previously raised concerns about the lack of evidence supporting the Proponent's hydrogeological conceptualisation of Brumby Waterhole.

Further uncertainty arises from statements in the Proponent's own documents acknowledging groundwater drawdown in the area, while asserting that this will not impact surrounding vegetation.

Specifically, the Proponent argues that "...the dominant species (*Eucalyptus tereticornis, E. raveretiana and Lagunaria queenslandica*) are found throughout the local area in areas where surface water is not retained..."

This claim is unsubstantiated. If these species are present in areas lacking surface water, it may indicate a dependence on shallow groundwater. In such cases, even a modest drawdown could affect vegetation health, contrary to the Proponent's assertion.

Black ironbox

Black ironbox, *Eucalyptus raveretiana*, has a limited distribution and is confined to riparian areas in Central Queensland. It is listed as vulnerable under both the EP Act and EPBC Act.

The Project will clear 0.5ha of this vegetation and it is likely to be impacted by changes to hydrology and groundwater within the 'offset area'.

The Proponent's assertion that a 5–10% permanent reduction in catchment area and corresponding reduction in flows will not harm the offset population is questionable. Given that these offset areas have already experienced cumulative disturbance, further hydrological changes may pose serious risks to the viability of the species.

Despite significant uncertainty, the EA application does not propose any monitoring of vegetation health or outline mitigation measures or corrective actions if adverse impacts occur. This is a significant deficiency.

⁷ Hail Creek Open Cut Eastern Margin Extension – Groundwater Assessment (28 April 2025)

⁸ Advice to decision maker on coal mining project IESC 2015-072: Hail Creek Coal Mine Extension Transition Project (EPBC 2014/7240) – Expansion Requesting agency

Groundwater dependent ecosystems (GDEs)

The Terrestrial and Aquatic Groundwater Dependent Ecosystems Assessment report⁹ defines approximately 128.45 ha or facultative terrestrial GDEs within the Hail Creek mine area. These ecosystems can access shallow groundwater when available but can persist without it.

However, the conclusion that mine-induced changes to groundwater will not affect GDEs overlooks the likelihood that ecosystem health and productivity could decline in the absence of groundwater access - particularly as climate change alters rainfall patterns. Groundwater may become an increasingly critical water source for these ecosystems in the future.

In this context, the precautionary principle should apply. Many of these ecosystems support species of high conservation value, including the endangered koala and greater glider. Protecting habitat quality is essential for the integrity of the broader Statewide Biodiversity Corridor.

This is especially important when considered alongside:

- The cumulative impacts of coal mining on the Fitzroy Basin's waterways, and
- The escalating uncertainty about how climate change will affect regional water resources.

Greenhouse gas (GHG) emissions

The Project's estimated greenhouse gas emissions over the LOM will contribute an additional 2.83 Mt CO_2 -e (Scope 1 and 2 emissions) and 68.92 Mt CO_2 -e Scope 3 emissions. This Project would result in a 22% increase of Scope 1 and 2 emissions and a 28% increase in Scope 3 emissions from the expanded HCOC mine (including this Project) with total estimated GHG emissions of over 253 Mt CO_2 -e for the extended mine operation.

Fugitive methane emissions

The Proponent estimates total fugitive emissions from the Project will be just 1.6 Mt CO_2 -e over the life of the mine and 9.35 Mt CO_2 -e for the expanded HCOC¹⁰. This figure appears implausibly low when compared to historical emissions from the existing Hail Creek operation.

In 2023, Glencore reported 1.06 Mt CO₂-e in fugitive emissions¹¹ from producing 9.5 Mt of ROM coal at Hail Creek.¹² Yet, the extension is projected to extract 28.9 Mt ROM coal—approximately three times as much—while claiming only a marginal increase in total emissions. This suggests an emissions intensity for the extension that is less than half of that previously reported.

Independent analysis supports scepticism about these claims. Kayrros scientists¹³ estimate that Bowen Basin coal mines emit an average of 7.5 kg of methane per tonne of coal mined - 47% higher than the global average. UN research suggests annual methane emissions from Hail Creek may range between 1.5 and 4.2 Mt CO_2 -e, well above the figures presented in the assessment¹⁴.

Glencore's fugitive emissions reporting under the Safeguard Mechanism also shows a stark increase in reported emissions—from 532,466 tonnes CO_2 -e in 2022–23 to 1,381,195 tonnes CO_2 -e in 2023–24—primarily due to new methane reporting requirements. These data cast serious doubt on the credibility of the Proponent's emissions estimates for the Project.

⁹ <u>Hail Creek Open Cut Eastern Margin Extension – Terrestrial and Aquatic Groundwater Dependent Ecosystems Assessment (29 April 2025)</u>

¹⁰ <u>Hail Creek Open Cut Eastern Margin Extension – Greenhouse Gas Assessment (28 April 2025)</u>

¹¹ Safeguard Mechanism baselines and emissions data 2023-2024

¹² Coal production data by mine, coal type and financial year

¹³ Kayrros scientists measure an average 1.6 million tons of methane per year emitted from the basin's coal mines

¹⁴ Methane emissions from Queensland mine may be gross underestimates, UN research finds

The emissions intensity for the extension project, as estimated by Glencore, contradicts both historical reporting and independent data. The claim that the extension will result in lower fugitive emissions per tonne of coal mined lacks credibility.

The Proponent cites Glencore's initiatives, commitments and target to align with Queensland's emission reduction targets. These total Scope 1,2 and 3 emission reduction targets include a 15% reduction by the end of 2026 and a 50% reduction by the end of 2035 against a 2019 baseline. The Proponent also acknowledges that Glencore is investing in their transition metals portfolio to support the global transition to a low-carbon economy. Extending the superpolluting HCOC appears to be contrary to Glencore's commitment to its shareholders.

Scope 1 and 2 emissions

The Proponent anticipates that the combined HCOC operations and the proposed Project will emit over 12.9 Mt CO2-e in Scope 1 and 2 emissions over 14 years, including emissions from fugitive methane, fuel combustion, and electricity use.

According to Table 17 in the Greenhouse Gass Assessment report, annual emissions will exceed the mine's SGM baseline of 1,189,092 t CO2-e for the first four years of the extension (2025–2028). Thereafter, emissions are predicted to fall below the baseline. This implies that Glencore expects to purchase offsets for only four years of operation, despite significantly increased coal production and likely methane emissions that exceed the baseline by a substantial margin.

Again, data from the UN and other sources suggest that HCOC methane emissions likely exceed the baseline every year, raising questions about the validity of Glencore's abatement trajectory¹⁵.

No abatement plan

Despite being required to provide an abatement plan under the Queensland Government's Greehhouse Gas Emissions guideline¹⁵ and specifically requested in DETSI's Request for Information¹⁶ - the Proponent has not submitted a detailed or credible abatement strategy.

Instead, the Proponent relies on vague references to potential future technologies and unspecified emissions management approaches. For example, the proposal refers to "assessing" options such as open cut pre-drainage but provides no timeline, methodology, or commitment to implement these measures. Other suggestions, such as "minimising haul distances" and "optimising ramp gradients," are minor operational adjustments that are unlikely to deliver material emissions reductions.

Given that an abatement plan is a requirement and was explicitly requested, the Project should not be approved until a detailed, evidence-based plan is submitted.

Scope 3 emissions

The Proponent estimates Scope 3 emissions from the Project at 68.92 mt CO2-e and 241.91 mt CO2-e for the HCOC and Project.

Under the Queensland Government's guidelines on GHG emissions, proponents must:

- Outline actions to reduce Scope 3 emissions, such as engaging with suppliers or customers; and
- Identify the geographic origin of emissions (domestic or international), and whether those jurisdictions are subject to comparable reduction obligations.

The Proponent fails to do either. No measures are proposed to reduce downstream emissions from coal combustion, nor is there any discussion of how exported coal might contribute to emissions in countries without robust mitigation policies.

¹⁵ <u>Greenhouse gas emissions guideline – Environmental Protection Act 1994</u>

¹⁶ DETSI Information Request, 15 March 2024

Climate context

The scientific consensus is unequivocal: expansion of fossil fuel production is incompatible with limiting global warming to safe levels.¹⁷ Australia, alongside 196 other nations, is a signatory to the Paris Agreement, which commits countries to pursue efforts to limit warming to 1.5°C and well below 2°C.¹⁸ Meeting these targets requires the immediate cessation of new fossil fuel developments.

According to the International Energy Agency, reaching net zero emissions by 2050 leaves no room for new coal mines or extensions. Even metallurgical coal must be phased out rapidly to remain within carbon budgets compatible with 1.5°C or 2°C pathways.¹⁹

The continued accumulation of GHGs in the atmosphere has already altered Australia's climate, with direct and measurable impacts, including:

- Increased frequency and severity of heatwaves
- Longer and more intense fire seasons
- More severe flooding events due to altered rainfall patterns
- Repeated mass coral bleaching events on the Great Barrier Reef
- · Intensified drought conditions

Legal and policy inconsistency

Approval of the Project would be inconsistent with:

- The precautionary principle, which mandates action in the face of scientific uncertainty where there is a risk of serious or irreversible harm
- Australia's international and domestic climate commitments, including:
 - o The Paris Agreement
 - The Climate Change Act 2022 (Cth)
 - o The Queensland Climate Action Plan 2030
 - The Safeguard Mechanism
 - o The Intergovernmental Agreement on the Environment
 - o The National Strategy for Ecologically Sustainable Development
 - Australia's Strategy for Nature 2019–2030

The Project would also have unacceptable impacts on the character, resilience, and ecological value of the surrounding region, including:

- Regional ecosystems and biodiversity
- Natural and physical resources
- Scientific and conservation values
- Community well-being, amenity, and social cohesion

Human rights risks

Approval of the Project would limit the following human rights protected under the *Human Rights Act 2019* (Qld):

• Right to life (s 16)

¹⁷ Intergovernmental Panel on Climate Change, *Climate Change 2022*

¹⁸ UN Framework Convention on Climate Change, Adoption of the Paris Agreement, 21st Conference of the Parties, Paris (2015)

¹⁹ International Energy Agency (2024). World Energy Outlook 2024

- Cultural rights of First Nations Peoples (s 28)
- Rights of children (s 26)
- Right to property (s 24)
- Right to privacy and home (s 25(a))
- Right to non-discrimination (s 15(2))

These risks must be weighed against any projected economic benefits, particularly where those benefits are contingent on activities that exacerbate the climate crisis.

Given the significant environmental, legal, and social concerns identified above, this Project should not proceed. At a minimum, any consideration of approval must be deferred until the Proponent submits a comprehensive and independently verified greenhouse gas abatement plan, along with credible emissions projections that align with established climate science and Australia's policy commitments.

Social and Economic Impacts

The Proponent has not adequately addressed the Project's potential social impacts, nor has it provided sufficient evidence that these impacts have been avoided or meaningfully mitigated. In particular, the Proponent fails to consider the social costs of contributing to climate change and offers no credible strategies to reduce the Project's climate-related effects.

The Project will generate additional greenhouse gas emissions that contribute to global climate change. In Central Queensland, climate change is already manifesting through more frequent and severe extreme weather events, including prolonged heatwaves, bushfires, and intense storms. These impacts pose significant risks to public health, particularly for outdoor workers and vulnerable populations with pre-existing health conditions. Emissions from fossil fuel projects—regardless of where the coal is ultimately burned—undeniably contribute to these risks.

The Project does not demonstrate any clear environmental or social benefits. While some royalties may accrue to the state, these do not compensate for the escalating public and private costs associated with climate-related disasters. The economic rationale is therefore insufficient when weighed against the growing burden of climate adaptation and disaster recovery.

The financial, legal, and fiscal risks of climate change are well documented. Any development that increases emissions will also increase these risks. Such costs must be transparently accounted for and weighed against any claimed economic benefits.

The Queensland Government's stated 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 be assessed on its own merits, including its demand profile, long-term viability, and compliance with community and environmental standards. The current application does not present a credible case that the Project meets these requirements.

Thank you for the opportunity to make a submission on the proposed extension of the Hail Creek Open Cut Coal Mine through the proposed Eastern Margin Extension Project .

Yours sincerely,

Dr Coral Rowston

Director

Environmental Advocacy in Central Queensland