QUEENSLAND CONSERVATION COUNCIL

PROTECT CONSERVE SUSTAIN

Dave Copeman, QCC Director
Ground Floor 35 Boundary St
(Kurilpa) West End, 4101

Alison Cummings
Department of the Environment, Tourism, Science and Innovation
Coal Business Centre
PO Box 3028, Emerald QLD 4720
By email to: CRMining@des.qld.gov.au

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RE: QCC Submission on the Environmental Authority Amendment Application (A-EA-AMD-100576264) for the Hail Creek Eastern Margin Extension Project

Queensland Conservation Council Inc. (QCC) welcomes the opportunity to make this submission about Hail Creek Coal Holdings Pty Ltd (a Glencore group company) (Glencore) application to amend its environmental authority (EPML00661913) (EA) for the Hail Creek Open Cut coal mine (A-EA-AMD-100576264) (amendment application). The proposed amendments to the EA, if approved, would authorise inter alia the Hail Creek Eastern Margin Extension Project (the proposed project) and the consequential unmitigated environmental harm which will be caused by the total lifetime GHG emissions of the Hail Creek Open Cut coal mine.

QCC is the peak body for environmental groups in Queensland. Since 1969, we have worked to support communities in protecting their environment and climate. Today we represent 61 groups and more than 20,000 members across the state, of which many are already experiencing the impacts of climate change and unsustainable development on their communities, threatened species, and landscapes.

We urge the Department of Environment, Tourism, Science, and Innovation (DETSI) to refuse the amendment application due to its clearly unacceptable impacts on climate, water resources and threatened species and its disproportionate limitation of human rights.

Grounds for refusal

1. The application should be refused because the development for which approval is sought 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; Environmental Protection Act 1994 (Qld) (EP Act) ss 3 and 5.
2. The application should be refused as the Project is inconsistent with the standard criteria under Schedule 4 of the Environmental Protection Act 1994 (Qld) (EP Act), particularly criteria (a)(i)-(iii), (b), (e) and (i).

3. Approval of the application is not compatible with human rights and is therefore unlawful. The development for which approval is sought will:

   (a) limit the rights in:

      (i) Section 15 of the Human Rights Act 2019 (Qld) (HR Act)

      (ii) Section 16 of the HR Act;

      (iii) Section 24 of the HR Act;

      (iv) Section 25 of the HR Act;

      (v) Section 26 of the HR Act;

      (vi) Section 28 of the HR Act

      (collectively, the human rights)

   (b) limit each of the human rights beyond the extent that is reasonable because;

      (i) the purpose of the limitation is profit and/or benefits to a small group of people at the expense of the majority of people living now and in the future; and/or energy generation and/or steelmaking; and

      (ii) those purposes will still be achieved if this application is not approved because there are other commercially feasible zero emissions alternatives which provide reasonable and practicable measures to protect environmental values from the harm caused by GHG emissions; and

      (iii) we must immediately transition to the lower emissions technology in order to meet the temperature goals of Paris.

   (c) limit each of the human rights beyond the extent that is demonstrably justifiable in accordance with s 13 of the HR Act because:

      (i) the applicant has not provided evidence that this coal is needed if we are to meet the temperature goals of Paris;

      (ii) the applicant has not demonstrated that this project provides a benefit socially, economically or environmentally to people in Queensland living now and in the future.

4. The facts and circumstances supporting these reasons, which are outlined in more detail below, include that:

   (a) the Project will contribute to climate change through greenhouse gas emissions;

   (b) the Project will negatively impact surface and groundwater in the region; and

   (c) the Project will adversely affect biodiversity and conservation values.

Impacts of GHG emissions

5. How quickly future climate change impacts are experienced, and how severe those changes are, will be driven for the next several decades by further human induced GHG emissions. In the longer term (centuries) this will be driven by both human emissions and feedbacks in the climate system. A feedback occurs when the climate impacts become self-reinforcing and create a risk of reaching a tipping point. A tipping point is a threshold where a tiny change could push the system into a new state.

6. To stabilise global average surface temperature in 2100 at below 2 degrees celsius above pre-industrial temperatures consistent with the goal of the Paris Agreement no new coal is needed or wanted. This is consistent with the Shared Economic Pathways (SSPs) described in IPCC AR6 WG111 of SSP1-1.9 and SSP1-2.6. SSP1-1.9 relates to an increase in temperature of 1.4°C, SSP1-2.6 to an increase of 1.8°C. Both SSPs are challenging to achieve, SSP1-1.9 exceptionally so. SSP1-1.9 would see temperature overshoot 1.5°C in 2050 before decreasing in the second half of the century with a large drawdown of CO2. Both SSPs will require drawdown of CO2 from the atmosphere. This means that, globally, we will need to draw down more CO2 from the atmosphere than we emit.[1]

7. Assuming current policy settings (including in Australia approving new coal extraction) would result in global average surface temperature stabilising in 2100 at or very close to 3°C above pre-industrial levels. It does not achieve the goal of the Paris Agreement. This scenario can be equated to SSP2-4.5, meaning it is a middle of the road pathway, or moderate action pathway, resulting in radiative forcing of 4.5. This scenario reflects the policy settings of national governments in 2021, which the IPCC estimated would result in temperature increases of between 2.7°C and 3.1°C above pre-industrial temperatures.[2]

8. Despite being one of Australia's most emissions intensive mines, Glencore has failed to provide the regulator with a credible Greenhouse Gas Abatement Plan for the purpose of assessment. Glencore has also failed to point to any evidence in its application material (despite its long history of coal mining in Australia and emissions reductions targets) of the measures that it has taken to effectively mitigate the GHG emissions of the Hail Creek Open Cut coal mine.[3]

9. A cumulative carbon budget estimates the cumulative CO2 emissions that can be allowed if the world is to achieve a desired global temperature goal.[4] The IPCC definition of a carbon budget is:

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[1] See Waratah Coal v Youth Verdict & Ors No 6 [2022] QLC 21 [726]-[746].
[2] Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) IPCC AR6 Synthesis Report, Annex I: Glossary.
[3] The 'Management Measures' in Chapter 8 of the GHG Assessment describe broad future actions that Glencore is 'aiming' to take, but no evidence that it has taken them, or when it will take them: SLR, EA Amendment - GHG Assessment (28 April 2025).
[4] Waratah Coal v Youth Verdict & Ors No 6 [2022] QLC 21 [757].

the maximum amount of cumulative net global anthropogenic CO2 emissions that would result in limiting global warming to a given level with a given probability, taking into account the effect of other anthropogenic climate forcers. This is referred to as the Total Carbon Budget when expressed starting from the pre-industrial period, and as the Remaining Carbon Budget when expressed from a recent specified date.

10. The SSPs that meet the goal of the Paris Agreement of keeping temperature well below 2°C with the aim of limiting it to 1.5°C are SSP1-1.9 (1.4°C) and SSP1-2.6 (1.7°C).[5] Assuming a 67% probability of keeping the temperature to the target, the remaining carbon budget for CO2 emissions only as of 2024/25 for:

    (a) SSP1-1.9 (1.5°C target, 67% likelihood) is approximately 150 $GtCO_2$ remaining from the start of 2024.[6] At the current rate, this will be exhausted in 2027;

    (b) SSP1-2.6 (1.7°C target, 67% likelihood): is approximately 450 $GtCO_2$ remaining from 2024 onwards.[7] At the current rate this will be exhausted in 2035, three years before this coal mine ceases operation.

11. The project's estimated total LoM emissions (254,815,806 tonnes CO_2-e) between 2025 and 2038 would represent:

    (a) Approximately 0.13% of the remaining global carbon budget under SSP1-1.9 (1.5°C scenario).

    (b) Approximately 0.03% of the remaining global carbon budget under SSP1-2.6 (below 2°C scenario).

12. These contributions are significant when considered cumulatively with other global emission sources within very limited remaining carbon budgets for Queensland and Australia.

13. The EA does not currently authorise environmental harm caused (either directly or indirectly) by the GHG emissions from the existing Hail Creek Open Cut coal mine.[8] Consequently this amendment application seeks authorisation to cause all of the environmental harm of its unabated and unmitigated GHG emissions under existing operations. This includes the total GHG emissions of the entire mine from the point that

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[5] Ibid, [767].

[6] Piers M. Forster et al. Indicators of Global Climate Change 2023: annual update of key indicators of the state of the climate system and human influence, Earth system Science Data (5 June 2024) Vol 16, issue 6; Climate Change Tracker: https://climatechangetracker.org/igcc/current-remaining-carbon-budget-and-trajectory-till-exhaustion?utm_source=chatgpt.com.

[7] Ibid.

[8] The EA is silent on GHG emissions and does not refer to environmental harm from GHG emissions in the conditions: Hail Creek Open Cut coal mine Environmental Authority (EPML00661913), Schedule A: General, Condition A1 "This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm."

the amended EA will come into force. We note for clarity here that per Condition A1 of the existing EA, Glencore is not authorised to cause environmental harm from GHG emissions.

14. Our primary submission is that an assessment can not be carried out at this point because the proponent has failed to provide credible data to substantiate its GHG emissions estimates. The project should be refused because it has failed to provide, as part of its application:

    (a) credible GHG emissions estimates suitable for assessment that include evidence substantiating its calculations; and

    (b) any demonstration of how approval of the amendment application will contribute to the Queensland Government's transition to renewable energy and its emission reductions targets; and

    (c) a credible GHG emissions reduction, abatement and mitigation plan; and

    (d) evidence that it has actually implemented any of the 'Management measures' proposed in Chapter 8 of its GHG Assessment at the Hail Creek Open Cut coal mine and a report detailing the emissions reductions that it has achieved through implementation of the measures.[9]

15. The proponent's Appendix I - Greenhouse Gas Assessment (prepared by SLR, April 2025) (GHG Assessment) contains significant deficiencies and inconsistencies as outlined below:

    (a) Opaque Reliance on NGER Method 2: The assessment relies on a site-specific Method 2 calculation for fugitive methane, based on in-situ gas content data and a proprietary gas assignment. Glencore only recently implemented Method 2 reporting for FY2023/24, after decades of using the default factors. While higher-tier methods are welcome in principle, the submission provides insufficient transparency about the gas content measurements, modeling assumptions, or emission factors used. The proponent simply states that drilling and technical studies were done and began Method 2 reporting in 2023/24, but offers no detailed data or explanation in the amendment application. This is concerning because the switch to Method 2 dramatically changed Hail Creek's reported emissions – Scope 1 (direct) emissions jumped from ~0.53–0.54 Mt CO_2-e per year (when using Method 1 in 2020–2023) to 1.38 Mt CO_2-e in 2023/24 after applying Method 2. Such a large increase implies that previous reporting underestimated fugitive methane by a factor of ~2.5. Yet the assessment does not clearly show why the new Method 2 results are higher (e.g. what methane content values were found) or how the calculations were performed. Given DETSI's warning about justifying the methodology, this lack of transparency is

[9] These reasons formed the basis for the Land Court's recommendation of refusal in Re Sungela Pty Ltd & Anor [2025] QLC 5

unacceptable. The proponent should be required to disclose the underlying gas content data and calculation method for independent review – especially since Method 2 can be manipulated if not rigorously validated. Simply put, the amendment application currently asks the DETSI to "trust them" on fugitive emissions, despite Hail Creek's record of under-reporting in the past.

(b) Unexplained 30% Emissions Intensity Reduction: The GHG assessment projects that the Eastern Margin Extension will have an average Scope 1 emissions intensity of 0.0965 t CO_2-e per tonne of run-of-mine (ROM) coal. This figure is approximately 30% lower than the Hail Creek Open Cut coal mine's actual emissions intensity. Previous studies conducted by Rio Tinto for the Exevale pit area (the area that is the subject of this amendment application) identified the seams as having a higher methane content than other areas of the mine.[10] Using the proponent's own data, 2023/24 had roughly 0.14 t CO_2-e per tonne (based on 1.38 Mt CO_2-e for ~10 Mt ROM). Yet the assessment does not explain how such a significant improvement in emissions per tonne will be achieved. There are no concrete new mitigation measures cited that would drive down methane emissions per unit of coal – if anything, expanding into new areas could tap more gas-rich seams. The claimed 30% intensity reduction is not explained in the documentation, raising doubts about the credibility of the projections. The proponent may be assuming a lower gas content in the extension area without evidence, or planning to dilute emissions by increasing coal output. Either way, this optimistic estimate is unsupported. Such a discrepancy should be resolved by providing a transparent basis for the projected intensity (e.g. geologic data on seam gas content for the extension) or else using a more conservative (higher) emissions factor in line with actual mine performance. Regulators cannot simply accept a 30% drop in emissions intensity on faith, especially not from one of Queensland's gassiest coal mines.

(c) Lack of Methane-Specific Abatement Measures: Despite fugitive methane comprising the majority (≈56%) of the mine's Scope 1 and 2 emissions, the submission offers no concrete plan to abate methane from the mining process. Appendix I makes a few generic statements about "investigating emerging technologies" and mentions "open-cut pre-drainage" of coal seams and other efficiencies "where reasonable and feasible". However, there is no firm commitment to implement known methane mitigation strategies such as pre-mine gas drainage with flaring/utilisation, surface methane oxidation systems, or even operational changes specifically targeting methane. In fact, the proponent explicitly does not yet have a Greenhouse Gas Abatement Plan for the project – they state that Hail Creek "does not currently have a GHG management plan or

10 https://www.bloomberg.com/news/articles/2022-07-13/glencore-expands-coal-mining-in-an-australian-methane-hotspot&sa=D&source=docs&ust=1748438983029015&usg=AOvVaw06rv7hMEbJcF6tOStXWUie

abatement plan" for the extension, and that a plan "will be developed" later in accordance with DETSI. The unquantifiable cost of implementing this 'plan' could not have been included in the project's cost benefit analysis or cash flow model. It is highly likely that the project would have a negative economic outcome if it were - either in terms of viability (if the miner bears the cost) or in terms of its CBA if the costs are externalised and borne by the people of Queensland. This is wholly inadequate. By law and policy, a detailed, site-specific GHG abatement plan should be part of the EA application for a project of this scale consistent with recent decisions of the QLD Land Court and State Policy. The new May 2024 Guideline: Greenhouse Gas Emissions (DESI 2024) (GHG Guideline) requires that medium- to high-emitting projects (>~25,000 t CO_2-e/yr) include a GHG abatement plan with concrete mitigation measures for Scope 1 and 2 emissions. Glencore has not complied with this requirement, instead positing that it will stick with the Safeguard Mechanism and buy offsets if needed. Glencore's plan is to "reduce net emissions" to meet Safeguard requirements, which implies an overreliance on purchasing carbon credits (Australian Carbon Credit Units) instead of direct on-site reductions. This is a critical failing. Offsets cannot substitute for real methane mitigation at the source – especially since methane's intense near-term warming effect means that offsetting a methane plume with slow-growing carbon sinks or distant reductions is scientifically unsound. The project's approach flouts the GHG abatement hierarchy, which prioritises avoidance and reduction of emissions before offsets. It is unacceptable that an expansion of one of Australia's highest-methane mines could proceed to this phase of assessment with zero specific measures to curb fugitive methane. A credible abatement plan must be provided, detailing how the proponent will actively capture or destroy methane (not just improve diesel efficiency and then offset the rest).

(d) Inconsistent Coal Type and Emissions Assumptions: The application also contains contradictory or at least misleading information about the type of coal to be produced, which has implications for emissions projections (particularly Scope 3). The proponent's GHG assessment assumes that going forward roughly 69% of the saleable coal will be metallurgical (coking) coal and 31% thermal coal. It forecasts that from 2025 onward, more metallurgical coal will be produced than thermal coal. However, recent production data tells a different story. In FY2023–24, Hail Creek produced slightly more thermal coal (3.97 Mt) than coking coal (3.89 Mt).[11] This reverses the historical portrayal of Hail Creek as primarily a coking coal mine. The Greenhouse Gas Assessment does not address this historical data and instead forecasts that from 2025, more metallurgical coal will be extracted than thermal, with an overall estimate of saleable coal from the

[11] https://www.data.qld.gov.au/dataset/coal-industry-review-statistical-tables/resource/bab54159-f38b-4e6f-8652-4b04bca29139

project being 69% metallurgical coal and 31% thermal coal. If in reality the mine continues to produce a larger share of thermal coal (which is burned in power stations), the downstream Scope 3 emissions could be higher than assumed (since thermal coal usage emits CO_2 directly, whereas some fraction of metallurgical coal's carbon ends up in steel rather than immediately as CO_2). At minimum, the discrepancy raises questions about the market and mining assumptions: Is the proponent counting on preferentially mining higher-quality coking coal seams in the extension? If so, is that geologically and economically feasible, or will market forces lead to more thermal by-products? This inconsistency has not been reconciled. Given that ~93% of the project's total GHG footprint will come from Scope 3 coal combustion, the split between coking coal v PCI and thermal coal should be reported and supported by evidence to ensure honest accounting of the climate impact of the amendment application. The proponent should update their assessment to reflect actual operating data and provide a rationale for the coal type assumptions. As it stands, the optimistic metallurgical fraction in the projections may downplay the expansion's true climate damage.

(e) The GHG Assessment (Appendix I) falls short of regulatory expectations and best practice. It uses a methodology that is not transparent. It presents an overly rosy emissions intensity without justification. It fails to put forward any tangible plan to mitigate the chief source of its Scope 1 emissions (methane), and it glosses over internal inconsistencies in the production profile that could affect emissions outcomes. These issues undermine the credibility of the amendment application and suggest that Glencore is not taking its climate responsibilities seriously.

16. Independent scientific evidence indicates Hail Creek Open Cut Coal's fugitive methane emissions are massively underestimated in official reports.

(a) Glencore's data (even after moving to Method 2) estimate current fugitive emissions at ~1.38 Mt CO_2-e per year.

(b) But top-down measurements tell a very different story. A 2025 peer-reviewed study by Borchardt et al. used two separate aircraft-based measurement techniques to quantify methane leaking from Hail Creek Open Cut coal mine.[12] The results were astonishing: in mid-2022, Hail Creek Open Cut coal mine was emitting in the order of 14.0 ± 3.3 tonnes of methane per hour, and in late 2023 on the order of 10 ± 2 tonnes of methane per hour (with consistent results between airborne sensors).[13] If sustained year round, these rates would equate to annual emissions of 1.5–4.2 Mt of CO2 equivalents (CO2-e) per year.[14] In other words, the existing mine's unauthorised actual Scope 1 methane emissions could be in the

[12] Borchardt et al, Env. Sci. & Tech. Letters: Insights into Elevated Methane Emissions from an Australian Open Cut Coal Mine Using Two Independent Airborne Techniques (2025), 12, 397-404, 1.
[13] Ibid.
[14] Ibid.

order of 3–8 times higher than what the operator has been reporting to the government. Borchardt et al. note that even Hail Creek's recently "improved" figures (using Method 2) are likely still far too low.

(c) This independent, empirical evidence corroborates earlier satellite-based studies that identified Hail Creek Open Cut coal mine as a methane "super-emitter." For example, analyses of TROPOMI satellite data in 2018–19 found Hail Creek's methane emissions were over twelve times greater than the reported emissions at that time.[15]

(d) Hail Creek is one of the most methane-intensive coal mines in Australia. In 2018 and 2019, independent satellites estimated that Hail Creek was emitting so much methane it would have been responsible for an estimated 20% of national coal mining methane emissions despite producing just 1% of Australia's coal.[16]

(e) These findings have two critical implications. First, the proponent's current GHG projections have a high probability of underestimating the true emissions that will occur if the expansion proceeds. If actual fugitive methane release is in the order of 3–8 times the reported values, then the climate impact of the amendment application is grossly understated. This calls for the application of the precautionary principle in assessing the project – the applicant must reconcile their estimates with the empirical data now that peer-reviewed science has confirmed Hail Creek Open Cut coal mine's emissions are anomalously high. Second, given its extraordinarily high methane emissions, it is indefensible that Glencore has no concrete mitigation plan for methane. As Glencore has failed to accurately assess, report or mitigate its methane emissions to date - despite reasonably available and practicable technology for doing so - if QCC's primary submission is refused and the amendment application is allowed to proceed, the DETSI should ensure that aggressive methane abatement (capture or destruction) is mandated as a condition in the amended EA.

(f) The aircraft measurements show that huge volumes of methane – a greenhouse gas ~28 times more potent than CO_2 on a 100-year basis (and over 80 times more potent on a 20-year basis) – are being vented to the atmosphere. Allowing an expansion without requiring technologies to curb this venting would be a grave oversight, effectively ignoring the best available science and undermining Australia's commitments to reduce methane under the Global Methane Pledge.

(g) In summary, independent data proves that Hail Creek Open Cut coal mine's GHG

[15] Sadavarte et al. Methane Emissions from Superemitting Coal Mines in Australia Quantified Using TROPOMI Satellite Observations (November 29, 2021) Environ. Sci. Technol. 2021, 55, 24, 16573–16580.

[16] https://www.afr.com/markets/commodities/these-australian-coal-mines-are-methane-super-emitters-20211130-p59d9i

emissions (especially methane) are far higher than the proponent's figures. The EA amendment application must be refused. It would be irresponsible and against the public interest to approve the extension while simply accepting the proponent's underestimated emissions accounting.

17. The amendment application relies on offsets and is incompatible with State Federal and Global climate targets in line with the temperature goals of the Paris Climate Agreement to limit global warming to under 2 degrees.

    (a) Glencore relies on the Commonwealth Safeguard Mechanism to claim it will manage emissions – effectively meaning it will buy offsets for any "excess" emissions above a baseline. This approach is seriously concerning. Offsets should be the last resort if consistent with the mitigation hierarchy, not the primary tool for managing a project's climate impact. By planning to "reduce net emissions" via the SGM rather than reducing gross emissions at the source, the proponent is shifting the burden to the offset market and avoiding tough action on methane. This is contrary to Queensland's stated policy direction. The GHG Guideline explicitly requires emitters to prioritise on-site emission reductions and to submit a credible abatement plan detailing such measures. No such plan has been provided. Simply purchasing carbon credits (which may come from forestry or other sectors) does not actually eliminate the methane pouring out of the mine. Moreover, methane's short-term warming cannot be effectively countered by long-term sequestration offsets – a ton of methane released now will drive warming over the next critical decades, even if one plants trees to offset the CO_2 equivalent. From a regulatory standpoint, reliance on offsets will not meet an EA's requirement to "prevent or minimise emissions" at the activity source.

    (b) Allowing this amendment application to proceed in the absence of a credible GHG emissions reduction plan would make it significantly harder for Queensland to meet its own climate obligations. The extension is forecast (by the proponent) to emit an additional ~2.83 million tonnes of CO_2-e (Scope 1+2) into the Queensland atmosphere over its life – a substantial incremental burden that will count against the state's emission inventories. (For context, 2.8 Mt CO_2-e is roughly equivalent to the total 2030–2050 emissions of 13,500 average Queenslanders.) Even more daunting, the Scope 3 emissions from burning the coal are estimated to be at least ~69 million tonnes CO_2-e over the life of the project, which is on the order of half of Queensland's entire annual emissions in 2023.[17] While those downstream emissions occur outside Queensland's borders (and are not counted in the state inventory), their climate impact is global, and directly at odds with the urgency to reduce greenhouse gas pollution. Approving a project that will unlock tens of

[17] https://www.qld.gov.au/environment/climate/climate-change/climate-science,-analytics-and-reporting/emissions-data.

millions of tonnes of additional CO_2 and that will continue venting large quantities of methane is fundamentally incompatible with the intention of Queensland's climate targets and the human rights of people in Queensland living now and in the future. Every major new source of emissions makes the task of achieving a 30% cut by 2030 (now just 5 years away) more challenging, requiring deeper cuts elsewhere or reliance on future negative emissions. The Queensland Climate Transition Strategy and the government's commitments under the Paris Agreement require that the era of increasing fossil fuel emissions must end imminently. In this light, the Hail Creek extension appears profoundly misaligned with Queensland's policy trajectory.

Decision to approve would not be compatible with human rights

18. It is unlawful for the DETSI when making this decision, to fail to give proper consideration to a human right relevant to this decision.[18] The Land Court has identified a potential threat to human rights in any activity that involves increasing GHG emissions.[19] Human rights should be construed in the broadest possible way before consideration is given to whether they should be limited.[20]

19. Pursuant to ss 8 and 13 HR Act, an act or decision is compatible with human rights if it does not limit a human right or, if it does, the limit is only to the extent that is reasonable and justifiable in a free and democratic society based on human dignity, equality and freedom. The test of compatibility of a limit with a human right is set out in s 13 and is known as the proportionality test.[21]

20. It is unlawful for the DETSI to act or make a decision in a way that is not compatible with human rights.[22]

21. The material contribution of the amendment application to the continued accretion of GHGs in the atmosphere and the resulting impacts of climate change will limit, beyond the extent that is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act, the following rights of people in Queensland protected under that Act:

    (a) the right to life (s 16);[23]

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[18] *Human Rights Act 2019* (Qld) s 58(1)(b).
[19] Per Stilgoe P in *BHP Coal Pty Ltd & Ors v Chief Executive, Department of Environment, Science and Innovation* [2024] QLC 7 [63] relying on decision of Kingham P in *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21.
[20] *Re Application under the Major Crime (Investigative Powers) Act 2004 (*2009) VSC 381, [80]; *Thompson v Minogue* [2021] VSCA 358, [46].
[21] Waratah (No 6), [84].
[22] *Human Rights Act 2019* (Qld), s 58.
[23] *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, at [1452].

(b) the cultural rights of First Nations Peoples (s 28);[24]

(c) the rights of children (s 26);[25]

(d) the right to property (s 24);[26]

(e) the right to privacy and home (s 25(a));[27] and

(f) the right to enjoy human rights without discrimination (s 15(2)).[28]

22. In the recent decision of the Queensland Land Court in *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, President Kingham found that the link between the approval of Project's contribution to climate change and the impact of that harm on human rights is sufficiently connected so as to enliven consideration of the HR Act.[29] Specifically, the President considered the listed human rights relevant to that decision, as per footnotes above.

23. The Project presents analogous risks to the human rights engaged in Youth Verdict due to its contribution to climate change, as well as risks posed to biodiversity and ground and surface water.

24. The Project also engages the following human rights due to its contribution to climate change, as well as risks posed to biodiversity and ground and surface water:

(a) right to health,[30] as implied in the right to life (s 16);[31]

(b) right to a clean, healthy and sustainable environment,[32] as implied in the right to

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[24] *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, at [1514].
[25] *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, at [1569].
[26] *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, at [1604].
[27] *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, at [1623].
[28] *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, at [1634].
[29] *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21, at [1703]-[1705].
[30] The right to health more broadly under Article 12 of the International Convention on Economic, Social and Cultural Rights as distinct from the narrower right to health *services* in s 37 of the *Human Rights Act 2019* (QLD).
[31] The right to life has been interpreted broadly and can include a requirement to reduce infant mortality and increase life expectancy. See: UN Human Rights Committee (**HRC**), *CCPR General Comment No. 6: Article 6 (Right to Life)* (30 April 1982) [5] and UN HRC, *General Comment No. 36 (2018) on Article 6 of the International Covenant on Civil and Political Rights, on the Right to Life*, UN HRC, 124th sess, UN Doc CCPR/C/GC/36 (3 September 2019) at [3] (***General Comment 36***). Therefore, the right to life arguably implies a right to health which itself has been interpreted to include underlying determinants of health such as safe drinking water and a healthy environment. See: UN Committee on Economic, Social and Cultural Rights, *General Comment No 14 (2000): The Right to the Highest Attainable Standard of Health (Article 12 of the International Covenant on Economic, Social and Cultural Rights)*, UN ESCOR, 22nd sess, UN Doc E/C.12/2000/4 (11 August 2000) at [4].
[32] As recognised as a standalone, universal human right by the UN General Assembly. See: UN General Assembly, *The human right to a clean, healthy and sustainable environment*, UN Doc. A/RES/76/300 (28 July 2022), which affirmed an earlier resolution by the UN HRC. See: UN HRC, *The Human Right to a Clean, Healthy and Sustainable Environment*, GA Res 48/13, UN Doc A/HRC/48/13 (18 October 2021).

life (s 16)[33] and the rights of children (s 26);[34]

(c) right to education (s 36);

(d) right to culture generally (s 27); and

(e) right to move freely (s 19).

25. Approval of the application would unreasonably limit those human rights beyond the extent to which it is demonstrably justifiable.

Risks to water resources and aquatic ecosystems

26. The proposed amendment application should be refused because the impacts to groundwater and surface water values have not been accurately identified. Glencore relies heavily on adaptive management and significant uncertainty remains regarding the impact of the amendment application.
27. We have identified several critical remaining issues that have not been properly addressed in the application material. Greater transparency, or additional action is required to comprehensively ensure that the ecological values of groundwater-dependent ecosystems (GDEs), aquatic habitats, and surface water systems are genuinely protected from the impacts of the mine expansion.
28. Persistent uncertainty around groundwater–surface water interactions with respect to the Brumby Waterholes Assessment: The project would bring open cut mining to within 500m of the Brumby Waterhole - a tributary of Hail Creek and a significant site for the Widi Traditional Owners. Glencore commissioned a report concluding that the waterholes will not be impacted.[35] Despite improved modelling since the IESC advice in 2015, the local-scale groundwater assessment acknowledges very low interaction with regional groundwater but relies heavily on hydraulic conductivity assumptions and limited transient monitoring. While detailed, the model relies significantly on short-term

[33] The International Court of Justice has recognised that the protection of the environment is an essential condition for numerous human rights, including the right to life. See: *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary/Slovakia)* (Judgment) [1997] ICJ Rep 7, 91 (Vice-President Weeramantry). Further, the UN HRC has acknowledged that environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life. Implementation of the right to life depends on measures taken by States parties to preserve the environment and protect it against harm, pollution and climate change. See: UN HRC, *General Comment 36* at [62]. This interpretation of the right to life was later applied and upheld in UN HRC communications: *Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 2728/2016 (Ioane Teitiota v New Zealand)*, UN Doc CCPR/C/127/D/2728/2016 at [9.4] and *Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 2751/2016 (Cáceres et al v Paraguay)*, UN Doc CCPR/C/126/D/2751/2016, [7.3].

[34] UN Committee on the Rights of the Child, *General Comment No. 26 on Children's Rights and the Environment with a Special Focus on Climate Change* (22 August 2023) UN Doc CRC/C/GC/26 at [63].

[35] https://environment.desi.qld.gov.au/__data/assets/pdf_file/0024/394161/appendix-g-brumby-waterhole-assessment-report.pdf

hydrochemical data, rather than longer-term isotopic and hydrochemical profiling to definitively rule out seasonal groundwater contributions or drought-driven groundwater dependencies. More continuous, longer-term data collection (spanning multi-year cycles) would substantially reduce residual uncertainty. Given the significance of this area to Widi People, in the absence of isotopic data to verify the conceptual model the DETSI can not consider the extent to which the cultural rights of Widi People may be limited by its decision. To give proper consideration to the limitation, the DETSI must be able to identify with certainty what the limitation is before deciding whether such a limitation is reasonable and demonstrably justifiable.

29. Groundwater model limitations and assumptions:
    (a) Hydraulic Conductivity and Model Boundaries: Although the revised groundwater modelling includes more refined local-scale parameters, it remains highly sensitive to assumptions regarding the hydraulic conductivity of geological units, fault permeability, and boundary conditions (notably general head boundaries). Confidence intervals and sensitivity analysis are insufficiently documented, leaving questions around whether peak groundwater impacts have been conservatively estimated.
    (b) Calibration and Peer Review: Independent peer review of the groundwater model—specifically addressing limitations and assumptions, uncertainties, and verifying robustness—is crucial. Without a rigorous external audit, the groundwater predictions (especially drawdowns and associated ecological impacts) remain uncertain.

30. Ecological Assessment and Groundwater Dependency of Vegetation:
    (a) Terrestrial GDE Assessment: The vegetation assessments focused primarily on visual health and leaf water potentials. However, the assessment still lacks multi-seasonal, detailed soil moisture profiling, isotope analysis, and deeper groundwater depth monitoring across a broader set of vegetation sites. The limited spatial extent of these detailed assessments may overlook subtle groundwater dependencies, especially under prolonged drought conditions or altered groundwater levels predicted under mining scenarios. The assessment should include the cumulative impacts of GHG emissions with the localised impacts assuming the likely future world that will exist in a scenario where the new coal from this amendment application will be burnt along with other new coal (business as usual - SSP2-4.5 temperature increases of between 2.7°C and 3.1°C above pre-industrial temperatures).
    (b) Aquatic GDEs and Seasonal Variation: The aquatic assessment identifies temporary and ephemeral water bodies, but it does not adequately incorporate longer-term, multi-year drought conditions and climate scenarios, which might amplify aquatic ecosystem reliance on subsurface flows. Without detailed multi-seasonal hydrological-ecological linkages explicitly assessed under

extended dry periods and , the conclusions about minimal impact risk to aquatic GDEs may underestimate vulnerability.

31. Decline in water quality:
    (i) The amendment application, if approved, would result in increased and prolonged discharges of mine-affected water to the Fitzroy catchment and therefore the Great Barrier Reef.
    (ii) The water discharge estimates given in Appendix B are likely to be extremely conservative. Actual discharge data shows that, over the first four months of 2025, discharges have already reached the 95th percentile of potential discharges likely during the project. This shows that Appendix B is severely underestimating the potential discharge from the project.[36]

(b) Previous non-compliance with trigger levels for water quality: The existing mine has also reported exceedances of trigger values for nitrate, aluminium and copper in 2024,[37] yet no investigation has been included in this EA application. Glencore's 'commitments' to 'continue to monitor and manage the impacts of releases in accordance with the EA conditions', do not prevent environmental harm from occurring because any investigation into exceedance of trigger levels occurs after the release.

(c) Glencore's impact assessment for water quality is based on the premise that there will be no additional impacts to the current situation. Reef Discharge Standards were only introduced in 2021,so the impact of the existing operations on the Great Barrier Reef was not previously assessed. Thus it cannot be argued that more of the same level of impact is acceptable, particularly given the ongoing water quality issues affecting GBR health. The project must not proceed unless it can demonstrate that it will be able to meet current reef discharge standards.

Subsidence and Long-term Surface Water Impacts - Assessment of Subsidence

Damage and diversions:

(d) The potential for mining-induced subsidence (and resultant changes in surface hydrology) has historically been identified by the IESC as inadequately assessed. Although recent surface water assessments include flood modelling, subsidence-related changes to local hydrological regimes, including subtle alteration of drainage pathways or baseflow conditions, remain inadequately quantified. Explicit subsidence scenario modelling linked directly to ecological impacts should be performed.

[36] https://environment.desi.qld.gov.au/management/activities/mining/mine-water-releases/current

[37] https://environment.desi.qld.gov.au/__data/assets/pdf_file/0024/394161/appendix-g-brumby-waterhole-assessment-report.pdf

(e) The proposal will require diversion of about 1.5km of Hail Creek, including clearing of riparian vegetation. These changes in flows may affect the riparian zone downstream along Hail Creek within the mining lease, including the black ironbox offset area and tributaries of Hail Creek.

32. Climate Change Integration and Future Conditions - Climate Change Scenarios: The updated assessments now integrate climate change scenarios, but significant uncertainty remains regarding the range of possible climatic conditions and extreme weather events, such as intensified droughts or flooding events. Further robust scenario analyses using the latest downscaled climate projections are necessary to explicitly test the resilience and robustness of the hydrological and ecological systems to future extreme conditions.
33. Long-Term Post-closure Ecological and Hydrological Outcomes - Residual Voids and Final Landform Management: The assessments identify potential long-term salinity and water-level issues in residual voids, but explicit, long-term (century-scale) ecological impact predictions and management strategies are insufficiently detailed. This raises concerns about the ecological viability of residual water bodies and their long-term interactions with groundwater and surface water ecosystems, potentially becoming ecological liabilities post-closure. There is no proposed PRC Plan for this amendment application so it is not possible for the DETSI to assess final rehab outcomes or progressive rehabilitation and closure plans.
34. These threats must be assessed in the context of cumulative impacts of multiple coal projects in the region already placing extreme pressure on water systems[38].

Destruction of critical habitat for threatened species

35. The extension would clear over 679 hectares of native vegetation, including 601 hectares of remnant vegetation, impacting essential habitat for federally and state-listed threatened species:
    (a) Koala (Phascolarctos cinereus) – Endangered under QLD's Nature Conservation Act 1992 (Species Profile);
    (b) Greater Glider (Petauroides volans) – Endangered (Species Profile);
    (c) Squatter Pigeon (southern) – Vulnerable;
    (d) Ornamental Snake – Vulnerable.
36. Also at risk are endangered regional ecosystems and ecological communities, including:
    (a) Brigalow (Acacia harpophylla) – Endangered;
    (b) Semi-evergreen vine thickets – Endangered.
37. This area is known to be important for movement, feeding, and breeding for the greater glider and koala - both of which are highly vulnerable to fragmentation. This includes areas within the Statewide Biodiversity Corridor, critical for linking habitat to Homevale

[38] https://www.iaia.org/uploads/pdf/Fastips_16%20Cumulative%20Effects%20Assessment_1.pdf

National Park[39]. The project has the potential to cause residual impacts on the National Park such as dust, noise, light pollution, and fragmentation of important corridors of koala habitat that link to the National Park.

38. The loss of hollow-bearing trees (critical for species like greater gliders) and degradation of corridors will likely have permanent impacts. Glencore's own assessment concedes that the project will cause "Significant Residual Impact" to koalas and habitat connectivity. As discussed above, the changes to water courses for the project are likely to impact the existing offset area which shows that proposed offsets are unproven, inadequate, and unreliable. They rely on the future restoration of already degraded land, despite no evidence that such offsets effectively replace critical habitat.[40][41]

Recommendation

This project cannot be justified in light of its unacceptable climate, ecological, and water impacts. Queensland Conservation Council urges DETSI to refuse the application to amend the Environmental Authority for the Hail Creek Eastern Margin Extension Project.

Failing refusal, we request that Glencore be required to withdraw this proposal and develop a resubmission of the application with full and credible assessments of methane abatement, water quality baselines and releases, cumulative impacts on threatened species, and compliance with updated state and national environmental standards.

Yours sincerely,

Dave Copeman

Director, Queensland Conservation Council

39 https://www.glencore.com.au/.rest/api/v1/documents/bfd98e29228d8a2132ff802b5b9ae347/626.042024+Environment+Assessment+Report+v3.0_20250430.pdf

40 https://www.stateoftheenvironment.des.qld.gov.au/biodiversity/terrestrial-ecosystems

41 https://soe.dcceew.gov.au/biodiversity/assessments