

Reply to: Nic Clyde
NSW Coordinator
nic@lockthegate.org.au

8 August 2025

Submission: Maules Creek Continuation Project

Lock the Gate Alliance is a network of over 120,000 farmers, Traditional Owners, conservationists and community members from across Australia, affected by and concerned about the impacts of coal and unconventional gas mining. We live and work in the communities affected by these industries and undertake research, advocacy and support to protect the environment, cultural heritage and society from damage. Many of our members are regionally-based, and are also experiencing first-hand the consequences of global warming.

Summary

This mine expansion will inflict unacceptable and irreversible harm on biodiversity, water resources and the environment of NSW more broadly in the form of escalating global warming.

We urge the Department of Planning to take seriously its responsibilities under the *Environmental Planning and Assessment Act 1979* and inform the proponent of this project that it will not recommend its approval as its impacts are too great for NSW to bear. Chief among the unacceptable impacts of this project are:

- This project will clear hundreds of hectares of habitat that is critical to the survival of the Swift Parrot, a species that is on the brink of extinction and recognised by NSW law as being at risk of “serious and irreversible impacts.”
- It will have unacceptable, serious and irreversible impacts on Corben’s long-eared bat, Box Gum woodland, Painted honeyeater and likely other affected woodland species. The ecological impact assessment is contradictory, patchy and fails to examine the life cycle and habitat needs of the species impacted, including many nationally-threatened species.
- The greenhouse gas assessment is not compliant with the EPA’s *Guide for Large Emitters* and misrepresents the project’s context and contribution to climate change.
- The scale and duration of the contribution this project will make to worsening climate change is unacceptable.
- The climate change impacts of this project on the locality must be assessed by identifying the global warming scenario on which the proponent’s coal demand projections are based. The Department should seek advice from DCCEEW regarding the impacts of that global warming scenario (or scenarios) on the Namoi region. The social, environmental and economic

consequences of that global warming scenario on the local region must then be assessed, in order to be consistent with the recent NSW Court of Appeal judgement.

- Maules Creek mine has had considerably greater impact on water resources than previously anticipated and its intense water demand in a constrained environment has required it to source additional supply, including by illegally capturing surface water runoff, and building pipelines from nearby farms without consent. There are major question marks over the groundwater model and conceptualisation for this project. Given this history, the Department must ensure there is independent scrutiny of the water assessment and prioritise ecological, agricultural and social water needs.
- The proponent proposes to use large volumes of captured surface water run-off to run its mining operation without a harvestable right to capture this water and without relevant surface water licences.
- The social impacts of the existing Maules Ck mine have been far greater than predicted, and undoubtedly the same will be the case with this expansion. The existing mine has not delivered the local jobs it promised and has resulted in major harm to the Maules Ck community including the buy-out of almost 70 farms and the displacement of families, impacting on the school and other key social institutions.
- There are major air quality concerns in regard to the release of harmful PM2.5 pollution, especially given the project seeks to extend so close to the Maules Ck village and Fairfax school. The reliance on predictive modelling for assessing risks at the current mine has been insufficient, and increased measurement and chemical characterisation of PM2.5 is needed prior to any consideration of the Continuation.
- The economic benefits of the project have been markedly over-stated, and are likely to be hundreds of millions less than predicted given the unrealistic thermal coal prices that were projected and the modest assessment of the costs of carbon utilised. When the negative economic impacts of the downstream emissions from the project are considered, it's clear the project represents a net drain on NSW.

We urge the Department to act on its statutory duties and recommend refusal of this development application.

Biodiversity

The impact of this project on biodiversity is unacceptable. It will inflict serious and irreversible impacts on both the Swift Parrot and Grassy Whitebox woodland. There are likely numerous other species that are likely to suffer serious and irreversible impacts but no attempt has been made by the proponent to investigate this possibility. The Maules Creek Continuation Project would result in the removal of about 592.5 hectares of remnant vegetation, most of which is remnant woodland that provides habitat for three threatened plant species and 23 threatened fauna species.

Leard State Forest includes some of the most extensive and intact unprotected stands of the nationally critically endangered Box-Gum Woodland remaining on the Australian continent. The Maules Creek coal mine has already cleared or is approved to clear 544 hectares of Box Gum

woodland, approximately 17% of the entire previous extent of this community within Leard State Forest. This project proposes to clear a further 80ha of this ecological community. The serious and irreversible impacts (SAII) evaluation provided does not engage with the question of intactness and quality, nor with the National Recovery Plan for the community, which deems all remaining stands of moderate to good quality as critical to its survival. It is also contradicted by the MNES assessment in the BDAR which admits that, “It is possible that without mitigation or offsets the Action would have a significant impact on the Box-Gum Woodland CEEC **as it would reduce the AOO of the CEEC and result in the loss of high value occurrences of the CEEC.**”

Nearly two fifths of Leard State Forest has already been cleared for three coal mines, including Maules Creek, and this additional clearing will take the total to nearly half its area cleared. No serious attempt has been made by the proponent to describe the cumulative impact of this loss of mature good quality habitat for woodland birds and bats in a bioregion that has experienced heavy clearing historically.

The Continuation project would remove about 460ha of potential habitat for Endangered plant species *Tylophora linearis*, and over 500ha of habitat for Critically Endangered Swift Parrot, Critically Endangered Regent Honeyeater, Vulnerable Corben’s Long-eared Bat, Endangered Koala, Vulnerable Brown Treecreeper, Endangered South-eastern Hooded Robin and Vulnerable Diamond Firetail. The loss of up to 376ha of Vulnerable Painted Honeyeater habitat may reduce this species’ area of occupancy according to the BDAR.

Assessment under the *EPBC Act* indicates that there would be a significant impact on Box Gum Grassy Woodland, *Tylophora linearis*, Southern Whiteface, Brown Treecreeper, Painted Honeyeater, Swift Parrot, South-eastern Hooded Robin, Diamond Firetail and Corben’s Long-eared Bat. In general, the biodiversity assessment is highly contradictory, with varying conclusions drawn in the BDAR, SAII evaluations and the MNES report.

Unacceptable impact on Swift Parrot

The assessment is confused and contradictory about Swift parrots. The BDAR states that the Swift Parrot is “excluded” from the mapping of suitable habitat for threatened species in the area to be cleared (see page 110 for example) because the proposed Continuation has not been mapped as Important Habitat for this species and it has not been sighted in the area targeted for clearing. The EPBC assessment acknowledges that a mapped area of Important Habitat is located about 70m to the southeast of the project at its closest point and that the entirety of the Swift parrot foraging habitat proposed to be cleared is critical to its survival. Regarding “The size of the local population directly and indirectly impacted by the development,” another section of the BDAR, Table 91, fails to cite the recent large numbers of these birds sighted nearby and therefore gives a false impression of the impact of this project on that species.

The EPBC assessment (Section 9.5.2.1 in Appendix C) concludes that there would not be a significant impact on Swift Parrot due to mitigation measures and the provision of offsets and revegetation

areas, even though the species was “excluded” from offset calculations and may be extinct before revegetation efforts reach maturity. Revegetation of currently cleared or grazed land, with no mature trees or habitat connectivity, cannot be considered as adequate compensation for the removal of established woodland containing mature flowering White Box trees in an area known to be visited in winter by significant numbers of Swift parrots. The findings of the BDAR are internally contradictory and also contradict the conclusion reached in Section 4.1.4.5 of the EPBC referral for adjoining Boggabri Mine Modification 10 that proposes to remove 85ha of almost identical potential Swift Parrot habitat (i.e. dominated by PCT 592):

Given the impact to species habitat in the Leard State Forest as a consequence of current mining operations in the Leard Forest Mining Precinct, the incremental loss of potential habitat depleted by cumulative impacts locally is likely to reduce the area of occupancy for the species and have a significant impact on the long-term viability of the Corben’s Long-eared Bat, Swift Parrot and Regent Honeyeater.

The SAI report on Swift Parrots prepared by Dr Stephen Debus for this project (Attachment 15) also comes to different conclusions, indicating that confused application of the criteria and terms of different statutes, regulations and guidelines poses a serious risk to the survival of this species.

In our view, these confusions arise from a failure of judgment on the part of those preparing the assessment as they follow varied prescriptions in divergent state and federal guidelines for how to characterise impacts but make no attempt to actually think about the consequences of removing a further large area of mature intact habitat being utilised by a species on the brink of extinction.

This discrepancy is particularly concerning for the Swift Parrot whose numbers have already declined by 80-95% (Heinsohn et al. 2015)¹ and which faces possible extinction in the next 10 years (Birdlife Australia 2024).² Current population size is estimated at less than 500 birds, including 306 adults.³ It is therefore at high risk of serious and irreversible impacts due to the cumulative impacts of clearing. Swift Parrots have been recorded in Leard SF on five occasions over the past 11 years, coinciding with good flowering events.⁴ This is strong evidence that there is high site fidelity to this area and a precautionary approach is warranted. Clearing hundreds of hectares of foraging habitat in the vicinity of an area recently visited by 4% of the total remaining population of a species on the brink of extinction is clearly unacceptable. It is absurd to claim that the removal of over 500ha of foraging habitat that is adjoining mapped important parrot habitat will not have a significant impact because 1,174ha of “suitable” habitat is found in the surrounding area. Such remarks demonstrate a failure to engage at all with the actual circumstances of this species.

¹ Heinsohn R et al. (2015). “A severe predator-induced population decline predicted for endangered, migratory swift parrots (Lathamus discolor)” *Biological Conservation* 186. pp. 75 - 82.

² Birdlife Australia (2014). “Tasmanian Government to log more Swift Parrot habitat.” Available from: <https://birdlife.org.au/news/tasmanian-government-logging-plans-uncovered/>.

³ Olah G., Waples, R.S. and D Stojanovic (2024). Influence of molecular marker type on estimating effective population size and other genetic parameters in a critically endangered parrot. *Ecology and Evolution*, 14(3), p.e11102.

⁴ Boggabri Mod 10 Biodiversity Development Assessment Report
https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP09_0182-MOD-10%2120250530T041654.354%20GMT

Furthermore, the Recovery Plan for this species defines mainland foraging habitat critical to the survival of the species as:

All preferred foraging species within known and likely foraging habitat on the mainland including Yellow Gum (E. leucoxylon); Red Ironbark (E. tricarpa); Mugga Ironbark (E. sideroxylon); Grey Box (E. macrocarpa); White Box (E. albens); Yellow Box (E. melliodora); Swamp Mahogany (E. robusta); Forest Red Gum (E. tereticornis); Blackbutt (E. pilularis); and Spotted Gum (Corymbia maculata)."

The Plan's highest priority action is to **protect habitat that is critical to the survival of the species**. Clearing over 500ha of such habitat is clearly inconsistent with the Recovery Plan and clearly unacceptable.

The BDAR states that the Swift Parrot tends to be associated with higher densities of White Box (*Eucalyptus albens*) in Leard State Forest. It notes that approximately 40% of the disturbance area contains *Narrow-leaved Ironbark-Cypress Pine-White Box shrubby open forest in the Brigalow Belt Bioregion and Nandewar Bioregion* (i.e. PCT 592) which is also listed among the habitats used by Swift Parrot in Table 33. Ecologist John Muchan undertook a rapid habitat assessment within this community directly to the east of the proposed Continuation project in Leard State Forest and found that it contained a very high density of large White Box trees (45 per hectare) that provided excellent potential habitat for Swift Parrot.⁵ The resulting report (Muchan 2025) is attached to this submission. Of the 592ha to be cleared as part of the Continuation project, 178ha are described as "good" condition PCT 592 (Table 5 in Appendix C). The BDAR does not mention that Swift Parrots have been observed feeding on lerps found on the leaves of Narrow-leaved Ironbark (*E. crebra*) in other localities in NSW.

The expert report commissioned by Lock the Gate (Muchan 2025) provides more detailed information on the Swift Parrot sightings in Leard SF. It refers to 13 sightings being recorded in 2012, 20 sightings in 2022 and 16 in 2023. The number of sightings in 2021 was not specified. Single sightings ranged from 4-9 individuals. The report states that this frequency of observations indicates high site fidelity, with visits expected every 4-5 years. Sight fidelity is an important criterion in determining priority sites for Swift Parrot under the NSW Saving Our Species Strategy.

The Muchan report also identified a significant lag between the time that species are recorded by ecologists retained by the mining companies and when they appear on BioNet. Records from 2019 and 2022 had still not been mapped on BioNet as of March 2025. Failure to make records publicly available in real time increases the risk of extinction for this species as developers and consent authorities remain unaware of its presence and underestimate the significance of predicted impacts. It is noteworthy that, within Leard State Forest, the BDAR for Boggabri Mod 10 reported Swift Parrot

⁵ Muchan J. (March 2025). *Conservation significance of Leard State Forest for Swift Parrots*. Report prepared for Lock the Gate.

being recorded on five occasions over 11 years,⁶ while the BDAR for Maules Creek Continuation notes that the species was recorded on three occasions over 13 years. Spatial information is essential considering that assessments of most large-scale projects are overly reliant on desktop surveys and inadequate survey effort.

Significant impact on threatened woodland birds

Leard forest provides habitat for a wide variety of woodland birds and appears to be a local stronghold for several species within a matrix of mostly cleared land. Twelve threatened woodland birds were recorded within the Continuation project area. The BDAR falsely claims that these species will not be significantly impacted due to mitigation measures and the provision of offset and revegetation areas, but does not properly consider their ecological requirements or the reasons for their ongoing decline. The Continuation project will remove habitat critical to the survival of the nationally-significant Brown Treecreeper (south-eastern), Hooded Robin (south-eastern), Southern Whiteface, Painted honeyeater and Diamond Firetail.

The BDAR appears to argue that incremental clearing is a mitigation measure, as if this somehow allows birds time to flee the disturbed area and to establish home ranges in adjacent, already-occupied habitat. This does not recognise the sedentary and territorial habits of the Brown Treecreeper, for example, which continues to decline due to habitat loss and fragmentation.⁷ Other sedentary and/or territorial species include the south-eastern Hooded Robin, Southern Whiteface, Diamond Firetail, Speckled Warbler,⁸ Grey-crowned Babbler⁹ and Varied Sitella.¹⁰ While progressive clearing might slow the rate of impact, its effect is still to displace and kill sedentary woodland birds and reduce the size of their population.

For Painted honeyeaters, its specific habitat need for mature trees that are able to support mistletoe is mentioned without being factored into the impact assessment or assumptions about the effectiveness of offsets. The assessment fails to establish whether the species is breeding in the area being targeted for clearing. The Commonwealth assessment for this species notes that the project “would reduce the area of occupancy of the Painted Honeyeater population” which it describes as “potentially an important population,” but no considered assessment is undertaken to determine the consequences of this.

This effect is clearly seen by comparing Figure 25c and 25d in the BDAR that shows woodland bird records prior to 2020 and post-2020. It is clear that development of the mine site results in a net loss of habitat and a shift of bird populations eastwards. As a general rule, once habitat in a region is reduced by 20-30 percent, fragmentation of the remaining area can lead to disproportionate declines

⁶ WSP (2025). Boggabri Coal Mine Modification 10. Appendix G Biodiversity Development Assessment Report. https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=MP09_0182-MOD-10%2120250530T041654.354%20GMT

⁷ Ford et al. (2009). Extinction debt or habitat change? - Ongoing losses of woodland birds in north-eastern New South Wales, Australia. *Biological Conservation* 142(12): 3182-90.

⁸ OEH (2022). Speckled Warbler profile. <https://threatenedspecies.bionet.nsw.gov.au/profile?id=10722>

⁹ OEH (2022). Grey-crowned Babbler profile. <https://threatenedspecies.bionet.nsw.gov.au/profile?id=10660>

¹⁰ OEH (2027). Varied Sitella profile. <https://threatenedspecies.bionet.nsw.gov.au/profile?id=20135>

in populations.¹¹ Forty-percent of Leard forest has already been cleared due to mining and more projects are awaiting approval. Persistence of woodland bird populations in the forest should not be taken to mean that they are thriving or that their extant populations are secure. Like the Brown Treecreeper and the Hooded Robin, these species may be subject to extinction debt where there is a considerable lag between the impact of habitat loss and local extinction.¹²

The BDAR claims that habitat connectivity in Leard forest will be maintained through the establishment of revegetation areas and the maintenance of a vegetation corridor to be retained between the Maules Creek and Boggabri coal mines. The retention of a 500m wide corridor was stipulated in Condition 7 of the Consolidated Conditions for Maules Creek Coal Mine (SSD 10_0138) and for Boggabri Coal Mine (SSD 09_0182). However, it should be noted that the latter condition expresses some doubt about the location of the corridor:

The purpose of this condition is to ensure that a 500 metre wide native vegetation corridor is maintained between the open cut pits of the project and the adjoining Maules Creek Project, if it is approved. However, alignment of this corridor directly along the lease boundaries may not be its most efficient location, from either an environmental or economic perspective. Consequently, with the endorsement of BCS, the Secretary may approve substitution of an alternative native vegetation corridor of at least 500 metres width and equivalent or better ecosystem value, within the general vicinity of the lease boundary.

The existing corridor, which varies in width from 500 to 1000m and adjoins forested land to the south, is likely to retain some functionality for some species. However, if Boggabri Mod 10 is approved in its current form, it would reduce the existing corridor to a 500m wide 3.5km long corridor bounded on both sides by active mine pits and subject to edge effects throughout its length. This long narrow corridor will be subject to significant indirect impacts associated with “hard” edges defined by a denuded landscape and possibly fencing. It is highly unlikely to provide structural or functional connectivity for any but the most mobile species. It is far more likely to become a hostile environment for terrestrial fauna species including woodland birds, effectively severing east-west connectivity in Leard forest and between the State Forest and any established offsets.

The corridor will be subject to weed invasion, predator pressure, hydrological changes and dust deposition and surrounded by noise, vibration, light and human activity. This will result in its degradation and loss of functionality. Further ecological consequences of these changes may not be immediately noticeable such as changes to microclimate, seed dispersal patterns, fauna behaviour, predation and competition pressure and vegetation structure and composition. The end result is a loss of species richness and the loss of interior forest species (threatened woodland birds) and consequent increase of edge-adapted species such as Noisy Miners. Because the corridor is highly

¹¹ Andren H. (1994). Effects of habitat fragmentation in birds and mammals in landscapes with different proportions of suitable habitat: a review. *Oikos* 71(3): 355-366.

¹² Ford et al. “Extinction debt or habitat change? – Ongoing losses of woodland birds in north-eastern New South Wales, Australia.” *Biological Conservation* 142 (12) December 2009.
<https://www.sciencedirect.com/science/article/abs/pii/S0006320709003991>

unlikely to be used by most threatened woodland birds, it will effectively isolate populations in the eastern and western sections of Leard SF.

Competition with Noisy Miners has been identified as a major threat to Swift Parrot and Regent Honeyeater as well as ten threatened woodland species found in Leard forest.¹³ The BDAR has flagged the issue of creating a new edge along the eastern side of the Continuation project and proposes to implement a five-year pilot control program to manage Noisy Miners. However, research undertaken by Beggs (2020) indicates that culling Noisy Miners resulted in immediate recolonisation of the treatment sites. While the abundance of Miners was reduced at treatment sites, it remained 3-4 times higher than at control sites.¹⁴ As a result, foraging activity of woodland birds increased slightly but there was no change to nest predation rates.¹⁵ The author concluded that culling is not an effective management option. Edge impacts associated with the 500m vegetated corridor were not considered in the EIS for the approved Maules Creek Coal Mine or in the application for Boggabri Mod 10. Therefore, if the Boggabri Mod 10 is approved, the entire 7km of edge habitat would be exposed to the threat of Noisy Miners.

While a 500m wide corridor may be effective in instances where it adjoins compatible land uses or where edge transition is gradual, it cannot be considered even remotely adequate when isolated from any vegetation and surrounded by major industrial facilities. In this case, the entire corridor would be subject to ongoing degradation by edge effects. The extent of edge effects can be highly variable ranging from 50-60m for abiotic or direct impacts, upwards to 500m¹⁶ or even 1000m.¹⁷ A review of 44 studies by Harper et al. (2015) found that edge effects will persist longer and extend further at edges that are maintained. Another review found that threatened species worldwide reached peak abundance 200-400m from “sharp high-contrast” forest edges.¹⁸ It appears that the impact of edge effects is exacerbated in highly fragmented landscapes like that found in the vicinity of the Maules Creek Continuation Project.¹⁹

Many threatened woodland species prefer interior forest habitat and avoid edges. Ongoing degradation, habitat loss and fragmentation within and around Leard forest is having a significant cumulative impact on these species. Female Brown Treecreepers are unable to effectively disperse amongst vegetation remnants and Hooded Robins suffer from high rates of nest predation in

¹³ NSW Scientific Committee Final Determination (undated). Listing of “aggressive exclusion of birds from woodland and forest habitat by abundant Noisy Miners” as a Key Threatening Process.

<https://www.environment.nsw.gov.au/sites/default/files/noisy-miners-nsw-scientific-committee-final-determination.pdf>

¹⁴ Richard Beggs (2020). “Declining small woodland birds: is removing noisy miners the answer? PhD thesis available via Theeaten Species Recovery Hub.

<https://www.nespthreatenedspecies.edu.au/publications-and-tools/declining-small-woodland-birds-is-removing-noisy-miners-the-answer>

¹⁵ Threatened Species Recovery Hub (undated). “To cull or not to cull? Quieting the Noisy Miner.” Science for saving the species no. 11. <https://www.nespthreatenedspecies.edu.au/media/0ctdclmg/noisy-miner-to-cull-or-not.pdf>

¹⁶ Harper KA et al. (2005). Edge influence of forest structure and composition in fragmented landscapes. *Conservation Biology* 19(3): 768-782.

¹⁷ de Paula MD et al. (2016). The extent of edge effects in fragmented landscapes: insight from satellite measurement of tree cover. *Ecological indicators* 69: 196-204.

¹⁸ Pfeifer M et al. (2017). Creation of forest edges has a global impact on forest vertebrates. *Nature* 551: 187-191.

¹⁹ Porensky LM & Young TP (2013). Edge-effect interactions in fragmented and patchy landscapes. *Conservation Biology* 27(3): 509-519.

fragmented landscapes.²⁰ The Speckled Warbler prefers undisturbed habitat while the Black-chinned Honeyeater and Grey-crowned Babbler require large patches to accommodate large home ranges that they defend year round, and are unable to cross large open areas. Populations of Diamond Firetail do not appear to persist in patches less than 200ha in size.²¹ Consequently, offset areas with patchy vegetation cover connected to each other or to the forest via narrow corridors and/or cleared land will not be accessible to sedentary woodland birds, thereby further restricting connectivity outside of the forest. None of these species-specific habitat needs and population threats are given consideration in the BDAR.

The proponent has committed to revegetating 2,255ha of bare ground or grazed land with no existing connectivity in three separate zones. All zones contain some derived native grassland in poor condition classified as PCT 101 (Woodland Good), PCT 145 (Derived native grassland) and PCT 435 (Woodland Good), with the remainder being made up of exotic grasses. Zones 1 and 3 located to the north-east and south of the Continuation project are not connected to Leard SF whereas Zone 2 adjoins its eastern side. Although highly mobile species may visit revegetation zones for foraging opportunities, hollow-nesting species such as Little Lorikeets or Brown Treecreepers would not be expected to use them for breeding in the short- to medium-term. It is unlikely that they would be able to provide suitable breeding habitat for threatened woodland bird species even in the long-term due to their size, linear configuration and tenuous connections to large expanses of intact vegetation. The removal of over 500ha of intact remnant woodland represents a net loss of habitat and a significant residual impact for woodland birds species because neither offsets nor revegetation is likely to provide ecological requirements for these species or reverse their ongoing decline.

Significant impact on Corben's Long-eared Bat

Corben's Long-eared Bat was recorded in the southern part of the Continuation Project area. Conservation advice for this species reports that it is uncommon within its distribution and rarely recorded "except in some areas including the Nandewar and Brigalow Belt South bioregions in New South Wales and Queensland."²² It prefers extensive stands of vegetation with good tree cover and roosts in tree hollows and fissures. The species is threatened by habitat loss and fragmentation as well as loss of hollows. Small habitat patches do not support viable populations. The EPBC referral for Boggabri coal mine Modification 10 that is seeking approval to remove 85ha of habitat for Corben's Long-eared Bat concluded:

Given the impact to species habitat in the Leard State Forest as a consequence of current mining operations in the Leard Forest Mining Precinct, the incremental loss of potential habitat depleted by cumulative impacts locally is likely to reduce the area of occupancy for

²⁰ Ford et al. "Extinction debt or habitat change? – Ongoing losses of woodland birds in north-eastern New South Wales, Australia." *Biological Conservation* 142 (12) December 2009.

<https://www.sciencedirect.com/science/article/abs/pii/S0006320709003991>

²¹ Department of Climate Change, Energy, Environment and Water. MArch 2023. Conservation Advice. Diamond Firetail. <https://www.environment.gov.au/biodiversity/threatened/species/pubs/59398-conservation-advice-31032023.pdf>

²² DCCCEW (2015) . Conservation advice for the south-eastern long-eared bat.

https://www.environment.gov.au/biodiversity/threatened/species/pubs/83395-conservation_advice-01102015.pdf

the species and have a significant impact on the long-term viability of the Corben's Long-eared Bat, Swift Parrot and Regent Honeyeater.

Therefore, the removal of an additional 550ha of intact woodland containing foraging habitat and roosting hollows represents a net loss of habitat and a significant residual impact that will not be compensated through provision of offsets or revegetation zones. This degree of impact is unacceptable, serious and irreversible, and must not be permitted.

The assessment concedes that the project would disrupt the breeding of this species, and that the habitat to be lost is in a Priority Management Area for it. It concedes that it would interfere with the recovery of this species, but claims that this would not be “substantial” interference because “the species and its habitat extends more widely in the surrounds and the local population would persist despite the loss of the individuals from within the Action Area.” This is a glib statement not supported by any actual investigation into the local population and its dependence on the extensive mature habitat present at Leard Forest. A dedicated impact assessment conducted by an expert must be undertaken for this and the other forest bats impacted by this proposal.

Unacceptable serious and irreversible cumulative impacts

Approved and proposed remnant vegetation removal associated with the Maules Creek, Boggabri, Tarrawonga and Vickery mines together with the Narrabri Underground Mine is huge at 4,767 hectares. A total of 3,036ha of the total 7,498ha of Leard State Forest has been cleared. This has resulted in not only the loss of native vegetation but also changes to its configuration by progressively eating into a large area of mostly intact forest and replacing it with vegetation links radiating outwards from the State Forest. While this configuration suits some species, especially the more common ones, it does not fulfill the ecological requirements of small sedentary terrestrial species or woodland birds that require specific ecological conditions.

The cumulative impacts of Maules Creek and Boggabri mines has been to restrict fauna movement between the eastern and western sections of Leard SF and any adjoining offsets. If Boggabri Modification 10 is approved, the corridor will be restricted to a 500m 3.5km “funnel” of inhospitable and edge-affected habitat that will not be used by sedentary species, including woodland birds. This is a significant residual impact that cannot be offset through mitigation or the provision of offsets or revegetation.

Biodiversity offsets

The biodiversity impacts of the original mine approval were the subject of considerable public opposition and were purportedly alleviated by the imposition of conditions requiring the proponent to establish and manage a portfolio of biodiversity offsets. Over the ten years subsequent to the approval of the Maules Creek coal mine concerns raised by the community and independent ecologists about misleading claims being made about the offset properties were substantiated. The proponent was compelled to seek variations to the EPBC approval to provide more time to secure

additional legal covenants for suitable alternative offsets and to the NSW consent to rearrange those offsets. The loss that has been inflicted on Leard forest already cannot be compensated for and the Department must evaluate the claims and promises of this company in the context of its previous record in this regard.

Climate change

This project will make an unacceptable contribution to worsening global warming and climate change and must be refused on that ground. The greenhouse gas pollution that will be produced by the project within NSW is inconsistent with the state's commitments under the *Net Zero Future Act*. More broadly, assumption about ongoing demand for seaborne thermal coal is entirely contrary to preventing catastrophic levels of global warming and all of the environmental, social and economic consequences that will bring to NSW.

The Department is obliged to take the objects and principles of the *Net Zero Future Act* into account when evaluating this project. We note that among those principles, section 8(5) includes "Action to address climate change should be consistent with the right to a clean, healthy and sustainable environment." The right to a healthy environment has already been construed as an aspect of intergenerational equity by the NSW Land and Environment Court in its finding in *Telstra Corporation Ltd v Hornsby Shire Council* [2006] NSWLEC 133, at [117]: "[Intergenerational equity] involves people within the present generation having equal rights to benefit from the exploitation of resources and from the enjoyment of a clean and healthy environment." The recent *Advisory Opinion of the International Court of Justice on Obligations of States in respect of Climate Change* (23 July 2025) is relevant to NSW's assessment of the Maules Creek Continuation project given the right to a healthy environment is recognised in law in NSW and intergenerational equity is a mandatory consideration as part of the public interest. The duties of states described in the Advisory Opinion pertain to the Commonwealth of Australia and under its bilateral assessment agreement the NSW government is obliged to provide the Commonwealth with an assessment that is fit for purpose under Commonwealth law. Clearly, such an assessment must not conflict with or breach Australia's obligations under international law. According to the Advisory Opinion [457 B (a)], Australia's obligations include:

duty to prevent significant harm to the environment by acting with due diligence and to use all means at their disposal to prevent activities carried out within their jurisdiction or control from causing significant harm to the climate system and other parts of the environment, in accordance with their common but differentiated responsibilities and respective capabilities.

At [427] the ICJ Advisory Opinion cautioned that,

Failure of a State to take appropriate action to protect the climate system from GHG emissions — including through fossil fuel production, fossil fuel consumption, the granting of fossil fuel exploration licences or the provision of fossil fuel subsidies — may constitute an internationally wrongful act which is attributable to that State.

The 241 million tonnes of direct and downstream greenhouse gas emissions from this project are proposed to occur between 2028 and 2045, mostly after 2035, and will at that time make a significant contribution to catastrophic levels of global warming, given that avoiding such warming would entail the ending of the seaborne trade of thermal coal during that period.²³ In NSW's evaluation of the climate change harm of this development application, the Department must consider whether its actions would constitute a wrongful act attributable to Australia in the terms of the ICJ's opinion.

Inadequacy of the EIS regarding greenhouse gas emissions and climate change

The EIS selectively cites the NSW Net Zero Commission to create the impression that the mining sector does not need to further reduce greenhouse gas emissions prior to 2030 and 2035, when in fact, the NZC's findings were almost the reverse of this. The document claims that the NZC's report shows that the resources industry is "one of the lowest emitting sectors in NSW" and also claims that "the current Safeguard Mechanism emission decline rates are more ambitious than the average rate of emissions decline that is required between 2005 and 2030 to achieve the NSW interim 2030 target of 50%." On the contrary, the Net Zero Commission's first annual report clearly identifies the expansion of coal mines as a major challenge for the state in achieving its target and warns that any emissions associated with extended coal projects would "require all other sectors to make greater emissions reductions." For this reason, assessment of this mine and its greenhouse gas emissions must consider the cost imposed on the rest of the state, both of an increased abatement burden and accelerated climate change.

Moreover, it is falsely asserted in Appendix J that "The continued production of ROM coal at the MCCM until 2044 has already been considered in NSW's sectoral greenhouse gas projections." The assessment cites the 2023 methods paper, which does not specify which coal mine expansion projects are included in the forward projections, and asserts that "consultation with the NSW EPA and the Net Zero Emissions Modelling (NZEM) team indicates that the MCCM has been included in NSW's existing emission projections." However, the 2024 methods paper, published in July 2025, provides more detail on its treatment of coal mine expansion requests in the forward projections and from that material it is clear that the Maules Creek Continuation Project is not included in the Scenario used to make the projections. The methods paper describes three coal mining scenarios:

- Scenario 1 - all operational mines continue their legally permitted life and no further mine expansions are granted consent;
- Scenario 2 - including emissions from the scenario 1 mines plus emissions from modifications and SSD applications for coal mines that are "under assessment;" This is the scenario used in the "current policies" projection and does not include the Maules Creek Continuation Project.

²³ See for example the IEA's Net Zero Roadmap and the World Energy Outlook's Net Zero Scenario. We note that Glencore has conducted internal modelling of the latter and found a likely decline of seaborne thermal coal to zero by 2040 in a scenario consistent with preventing catastrophic levels of global warming.

- Scenario 3 - including emissions from Scenario 2 plus emissions from modifications and SSD applications for coal mines for which “scoping reports” have been received. This last category includes the Maules Creek Continuation Project.

In any case, inclusion in the forward projections by the Net Zero Modelling team is not “consideration” of the environmental impact of the emissions from this project and does not bind the NSW government to approve it, especially given that current projections are not on track to achieve NSW’s legislated emissions reduction targets. In this situation, all additional mitigation should be pursued and in the coal mining sector, not approving further mining is a straightforward way to achieve mitigation. We note that the difference between Scenario 1 and Scenario 3 above is 22 million tonnes of greenhouse gas emissions cumulatively by 2035 and nearly 50 million tonnes cumulatively by 2050. Cumulative emissions of this project between 2028 and 2044 are estimated to be 3.3 million tonnes, or more than 6.5% of the total additional greenhouse gas emissions from expanding coal mines proposed in NSW to the middle of the century.

Assessment not compliant with Large Emitters Guide

The EIS does not comply with the EPA’s *Large Emitters Guide*, most notably in that it fails to set emissions reduction goals and to specify emissions reduction measures it will take.

In lieu of complying with the *Large Emitters Guide*, the EIS relies on historic emissions reductions by the mining industry overall to claim that a “meaningful contribution” to NSW emissions reduction targets does not need to be made by this project. The following claim is made:

Whitehaven considers that the application of the Safeguard Mechanism to many facilities operating in the Resource Sector in NSW already suitably addresses the NSW Government’s interim emission reduction targets under the Climate Change (Net Zero Future) Act 2023 (Net Zero Future Act) and will satisfy the requirement that the NSW Resources Sector to make a ‘meaningful contribution to NSW emission reduction targets in the context of the industry sector or economy’

This is patently inadequate and not compliant with the *Large Emitters Guide*. Firstly, the large emitters guide assesses greenhouse gas emissions at the facility level, not sectorally. Secondly, the coal mining industry is one of the only sectors in the economy proposing to *increase* its greenhouse gas emissions in the next five years. Finally, baseline decline under the Safeguard Mechanism can be met through the purchase of land sector offsets, so do not constitute emissions reduction.

In any case, this approach is not compliant with the *Large Emitters Guide*, which requires the proponent to, inter alia, demonstrate that best practice measures will be implemented to avoid and reduce greenhouse gas emissions or provide evidence-based justification for why best practice measures are not feasible and other measures are proposed. The proponent does not demonstrate that best practice measures such as pre-draining gas, avoiding gas-rich strata, electrification or renewable diesel, will be used, nor does it propose other measures to replace these. The proponent

does not, for example, consider operational abatement measures such as shorter hours of operation, or shorter duration of mining.

The *Large Emitters Guide* also requires the proponent to set facility-specific long-term and interim emission goals that are consistent with NSW's emissions reduction trajectory, which it has not done. The setting of such goals is not an optional requirement. The *Large Emitters Guide* does allow for an explanation to justify why those goals are not consistent with NSW's trajectory, but the proponent is arguing that it does not need to set goals at all. Contrary to the requirements and contrary to NSW's policy commitments, the emissions calculations in Appendix A of Appendix J indicate greenhouse gas emissions from this mine will rise more or less consistently out to 2041 if this application is granted. Despite the proponent's reliance on the Safeguard Mechanism, no attempt has been made to calculate or disclose the baseline trajectory of the Maules Creek mine over the next twenty years under that scheme. Finally, the proponent correctly identifies that the Safeguard Mechanism currently provides for mitigation obligations to be met through the purchase of ACCUs, but, contrary to the *Large Emitters Guide*, does not describe its offset strategies for its scope 1 and 2 emissions as the Guide requires.

Coal demand expectations

The proponent's expectations of market demand for the coal to be mined from this project are crucial to consideration of its environmental impacts. Whitehaven Coal's 2024 *Annual Report* contains forecasts for the supply and demand for "high [calorific value] thermal coal" that Whitehaven produces. It projects that demand will continue to grow to 2040 from 300Mt in 2024 to approximately 365Mt in 2040. This expectation flies in the face of global commitments to prevent catastrophic global warming. It is also not consistent with expectations published in Australia's *Resources and Energy Quarterly* in the last two quarters (March and June 2025) which forecast declining demand for thermal coal in the short-term.

Analysis of global coal demand undertaken by the Institute for Energy Economics and Financial Analysis in April 2025 concluded that the outlook for Australian thermal coal is uncertain and that higher-quality coal may not guarantee higher demand.²⁴ It states that there are no replacement markets for Australia's high calorific value thermal coal as Japan, South Korea and Taiwan phase out coal-fired power and that there is "no evidence to suggest import demand growth in South-east Asia won't be met by cheaper thermal coal suppliers such as Indonesia, South Africa, Russia or Colombia."

Either the economic impact assessment of this project is false or misleading, or it fails to account for the damage that will accrue to NSW and the local environment in the Namoi as a result of the catastrophic impacts of a high global warming scenario.

²⁴ Anne-Louise Knight, IEEFA. April 2025. "Australian Coal Exports Face Numerous Downside Risks, New Projections Show" <https://ieefa.org/resources/australian-coal-exports-face-numerous-downside-risks-newprojections-show>

Fugitive methane

The proponent provides no data or information to underpin its estimation of very low fugitive methane emissions from this project. It is stated that the annual estimates of fugitive emissions are based on local drilling data, but this data is not presented and there is no discussion of the different geological qualities of the strata proposed to be exploited. Given the long history of coal seam gas exploration in the surrounding district, the proponent's claims to very low gas content in the targeted coal seams is anomalous and requires more than mere assertion.

Attached to this submission is an expert report on the climate and greenhouse gas impacts of the project produced by Silver Street Communications. It raises numerous concerns with the proponents estimates of GHG emissions from the project, particularly in relation to methane. The project relies on fugitive methane estimates using NGER Method 2, which has come under increasing scrutiny from the NSW EPA, CSIRO, and Climate Change Authority due to its sparse sampling, lack of transparency, and high uncertainty potential. By contrast, similar projects in NSW have been required to undertake domain-based gas profiling, pre-drainage pilot trials, and independent verification. Maules Creek's estimated methane emissions are not only well below peer benchmarks, but are unsupported by any publicly disclosed sampling data or error bounds in their existing greenhouse gas assessment.

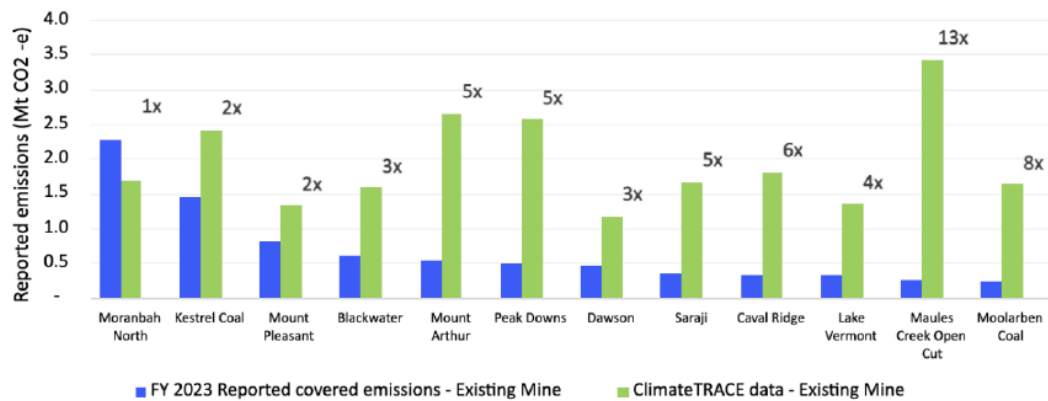
Furthermore, there is a growing body of evidence showing that methane emissions from open cut coal mines are generally far higher than reported. IEEFA summarised some of the recent evidence as follows:

The IEA estimates that emissions from Australian coal, oil and gas production could be underreported by more than 86%. However, the Superpower Institute has found they are likely to be underreported by 100% or more, and that Climate TRACE data is a closer fit to Open Methane's observed methane emissions data than the Australia government's national inventory data. Climate TRACE data shows fossil fuel methane emissions could be more than three times higher than reported. The suspected underreporting is particularly high for the gas sector and open-cut coal mines, with some data providers suggesting open-cut coalmine methane emissions could potentially be almost six times higher than reported.²⁵

IEEFA used the Climate Trace data to produce the graph below which reveals the scale of potential underreporting from coal mines. This data suggests that Maules Creek coal mine may be dramatically underreporting emissions, by a factor of 13, and that it appears to be the largest underreporting coal mine with expansion plans.

²⁵ IEEFA 2024: [Prioritising Methane Abatement Makes Economic Sense](#)

Figure 6: Potential underreporting from coalmines with expansion plans



Sources: Clean Energy Regulator, [Safeguard Mechanism, facility data 2022-23](#); Climate TRACE, [Data Downloads](#), Notes.

Climate TRACE figures are taken for calendar year 2023, and Safeguard Mechanism facility data reflects the covered emissions reported for FY2022-23 so this is not a direct comparison. Climate TRACE data refers to emissions quantity in 2023 reported in CO2e using a 100-year horizon; Safeguard Facility data reflects total greenhouse gas emission data not just methane emissions data, as this will only be disaggregated by greenhouse gas type from FY2024-25.

The scale of this discrepancy and the enormous difference it makes to the estimated direct emissions from the project are extremely concerning. The proponent must be required to conduct direct measurement of emissions and dedicated methane satellite monitoring of the site should also be undertaken, to properly quantify direct emissions before the project progresses any further through the planning process.

Impacts of climate change in the Narrabri district

We draw the Department's attention to the recent decision by the NSW Court of Appeal in *Denman Aberdeen Muswellbrook Scone Healthy Environment Group Inc v MACH Energy Australia Pty Ltd* [2025] NSWCA 163 (DAMSHEG Appeal). This decision found that the impact of climate change on the local environment was a mandatory consideration required of the Independent Planning Commission in its determination of the Mount Pleasant Optimisation Project. Appendix J of the EIS for this project, and some aspects of the surface and groundwater assessments, do include some information about the likely consequences of a high emissions global warming pathway in the Namoi region. However, this information is incomplete and does not provide sufficient information for a consent authority to understand "the causal connection between the Project and its impacts on the environment in the locality of the Project" (DAMSHEG Appeal [107]). In the EIS for this project, some isolated consequences of a high emissions pathway on the Namoi catchment are cited, but the causal relationship between the project and different emissions pathways and their consequent severe and lasting impacts on all aspects of the environment, economy and community in the Namoi are not described. The consent authority needs to be able to evaluate this project's expectation of coal demand consistent with a high warming scenario, and the different market circumstances that would arise in a low warming scenario.

In any case, the material presented regarding the impacts of climate change on the locality is selective and incomplete. This is somewhat understandable, given the proponent was not provided with assessment requirements regarding this aspect of the project's environmental impact, but it is not a new requirement and the proponent's patchy attempt indicates acceptance on its part that such an evaluation is necessary. We recommend that the Department seek advice from DCCEEW regarding the impacts of different global warming scenarios on the Namoi region, and the causal connection between these impacts and scenarios of coal demand. Whitehaven should then be required to assess the local environmental, economic and social consequences of those impacts. The Mt Pleasant judgement made it clear that it is not sufficient to merely "consult" the community on these impacts, but that the community must understand them and Whitehaven must be able to show the community understands what those impacts will be. This will thus require a new process for engaging with the community about these matters.

Water resources

The Maules Creek coal mine has had a far more serious impact on water resources than anticipated when it was assessed and approved and its conduct has been a source of conflict and anguish for the local farming community. Reviewing the groundwater and surface water impact assessments, some questions and gaps arise:

- It is not clear to us whether the groundwater impact assessment included any drawdown or other impact associated with pumping from the Roma and Olivedene bores to supply the mine. This may or may not contribute to the cumulative impact but at the moment appears to be absent entirely from discussion;
- It appears that the proponent is anticipating the spilling of sediment dams into Back Creek.
- Surface water modelling used historical records to inform extremes of rainfall and while the effects of climate change on these extremes is discussed, it does not appear to have been incorporated into the modelling.
- There remain major question marks over the groundwater conceptualisation and modelling, and it is notable that major changes have been made from the original model on which the current mine was approved without any apparent data to justify them. In particular, the major risk posed to the Maules Creek alluvial aquifer from the mine is still, in our view, dramatically understated.
- The Surface Water Assessment calculates that 214ML of harvestable right would be available to account for the take of rainfall and runoff for use at the mine, but the water balance indicates that combined runoff and direct rainfall to site catchments contribute between 1,815 ML/year and 2,006 ML/year to the site. There is no explanation for why the mine expects to be able to use this water without a licence to do so.

Notwithstanding the peer review provided by the company, the Department must ensure that there is independent review of the surface and groundwater assessment of this project and cannot accept unsubstantiated commitments from the proponent regarding its management of water, given its track record. This means that any modelled shortfall in water availability to run the mining operation

must be treated seriously by the Department as a constraint on the operation and its ability to achieve, for example, its air quality objectives. Water availability constraints must also be treated as a social and economic issue for the mine itself and the surrounding farming community, and an ecological issue. A full, hands off review of the groundwater model and conceptualisation, and the unexplained changes that have been made to it, needs to be conducted.

The assessment demonstrates a significant intensification of the impacts of the Maules Creek coal mine on groundwater that will worsen centuries into the future. The compounding impact of this altered groundwater hydrology with climate change beyond the end of this century is not considered at all in the assessment but will be substantial. The project is also going to intensify the impact of the mine on Back Creek, dropping the water table below it and eating away more of its catchment. These impacts would be unacceptable given the importance of Back Creek to the Maules Creek community.

Notwithstanding the questions over the model and the assessment, the groundwater assessment as it is still indicates the following severe environmental impacts from the project, beyond the minimal impact criteria of the Aquifer Interference Policy:

- In the Upper Namoi Zone 4, the assessment indicates that there will be more than 10% cumulative change in the water table below 70.5 hectares of high priority groundwater dependent ecosystems.
- In the Maules Creek water source, Upper Namoi Zone 11, the assessment indicates that there will be more than 10% cumulative change in the water table below 164 hectares of high priority groundwater dependent ecosystems.
- In the Gunnedah-Oxley Basin, the assessment also indicates that there will be more than 2 metres drawdown at five water supply bores owned by landholders other than the mining company, and beneath 23 hectares of high priority groundwater dependent ecosystems.

And yet, the impacts are presented in the body of the EIS as being “negligible.” This is an expression of the proponent’s lack of concern about the impacts of the Maules Creek coal mine on the local and regional environment that has been characteristic of its approach over the last twelve years.

Economic impacts

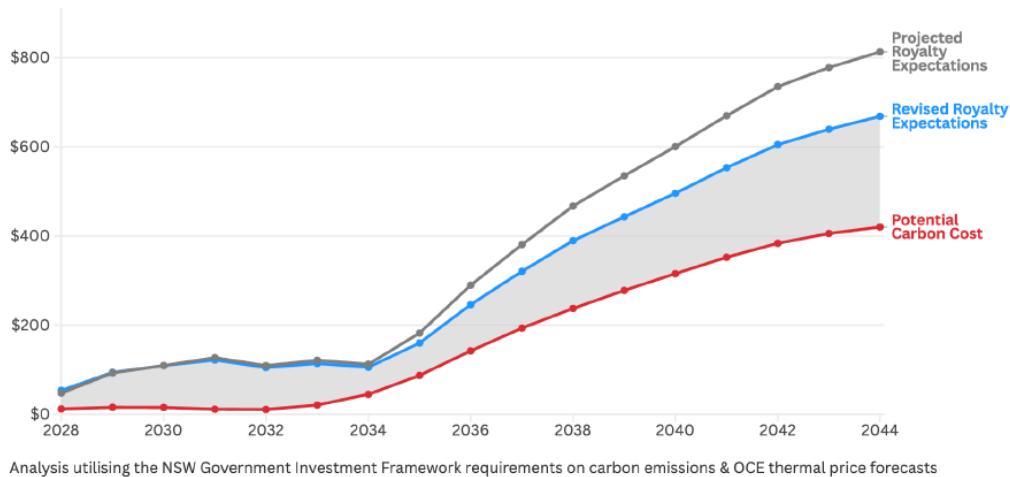
The attached expert report by Silver Street on the climate change and greenhouse gas impacts of the project, also addresses the purported economic benefits of the project. The report finds that:

- The proposal’s economic case is undermined by inflated thermal coal price assumptions, inconsistent with current forecasts from the Department of Industry and IEA. A corrected scenario applying benchmark pricing suggests the fiscal benefit is significantly overstated and vulnerable to downside risk - and will shave at least \$149m of the estimated royalties.
- Furthermore, the carbon cost of the project’s Scope 1 and 2 emissions only - applied using the NSW Government’s TPG24-34 framework is estimated at approximately AU\$420 million NPV (2024).

- This means that the revised royalty revenue would be almost entirely offset by the project's domestic carbon cost alone, (as per graph below) even before considering its substantial Scope 3 emissions footprint of 238.4 Mt CO₂-e.

Revised royalty expectations and carbon costing could significantly impact value proposition

Net Present Value \$AUD 2024 (mln) of the Project's specific additionalities



Air Quality

There are serious concerns about the fact that the Continuation Project intends to extend so close to the Maules Creek village and the Fairfax school. Pollution of dangerous levels of PM_{2.5} that are known to damage human health is a high likelihood for these locations.

Generally, the air quality assessments unduly rely on predictive models without sufficient ground measurements, which raises genuine concerns about its accuracy. There has also been no chemical characterisation of the PM_{2.5} particles that are being recorded in the region, which precludes an assessment of where it has originated and therefore prevents a proper assessment of the contribution of the mine to air pollution.

We urge the Department to recommend refusal of this project.