

SUBMISSIONS ON BEHALF OF THE HUNTER THOROUGHBRED BREEDERS ASSOCIATION (HTBA)

INTRODUCTION

1. The Mount Pleasant Optimisation Project (**project**) is not in the public interest and should be refused, principally because:
 - a) the costs and risks of the project are borne by the local community in the Upper Hunter Valley and by the public more broadly, both current and future generations; and
 - b) the principles of ecologically sustainable development (**ESD**), in particular the principles of intragenerational and intergenerational equity, dictate that the application for development consent should be refused.
2. The public interest is a mandatory consideration under s 4.15 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*. In the case of this project, that is the most critical matter for consideration.
3. This submission addresses the following:
 - a) Nature of the environmental and social impacts of the project (paragraphs 4-7);
 - b) Nature of the Commission's assessment obligations under section 4.15 (paragraphs 8-10);
 - c) Relevance of the current consent and section 4.63(3) (paragraphs 11- 27);
 - d) The cumulative impacts underestimated (paragraphs 28-35);
 - e) Key impacts
 - i. Air quality (paragraphs 37-41);
 - ii. Water (paragraphs 42- 49);
 - iii. Visual/Landscape character (paragraphs 50-51);
 - iv. Greenhouse gas emissions (paragraphs 52-69);
 - f) Need for close scrutiny of the proponent's economic assessment (paragraphs 70-80);
 - g) Draft conditions of consent (paragraphs 81-86);
 - h) The public interest: Ecologically sustainable development (paragraphs 87-91);
and
 - i) Conclusions (paragraphs 92-97).

A. ENVIRONMENTAL AND SOCIAL IMPACTS OF THE PROJECT ARE SIGNIFICANT, LONG TERM AND IRREVERSIBLE

4. Each of the Department and proponent has used different base cases, and inconsistently so, to describe the impacts of the project. It is important to recall what the Commission has been asked to approve.
5. This is an application for what may become NSW's largest open cut coal mine. It contemplates:
 - a) extraction of 406¹ million tonnes of ROM coal to produce 322 tonnes of thermal product coal for export until December 2048 (variously described by the Department, the proponent and the proponent's experts as 22 years, 23 years, 25 years and 26 years); and
 - b) operations, including blasting, open cut mining, coal processing and rail transport 24 hours per day 7 days a week until the end of 2048.
6. The environmental and social impacts of the proposal are significant, long term and irreversible:
 - a) it proposes the construction of a 1,000ha waste rock dump (6km long, 1-2 km wide) rising approximately 200m above the valley floor on the outskirts of the town of Muswellbrook that would block views from Muswellbrook to the distant mountains to the west²;
 - b) local residents would be exposed to the noise and dust impacts of this open cut mine for 25 years until 2048³;
 - c) there would be a perpetual alteration of surface water and groundwater flows, the creation of a 162 ha, 3.26 km long "Pit Lake" of saline, likely acidic and metals contaminated water which is not viable for human recreation or other use, and extremely likely to be detrimental to local birds and other wildlife⁴;
 - d) there would be a 1000 plus years of groundwater impacts for current and future landholders. It would be 500 years before water levels reached an equilibrium under current climate conditions;

¹ Section 3 of the EIS indicates that assuming year 1 of the project is 2023, 406 million tonnes of ROM coal will be extracted over the life of the project to December 2048.

² The dimensions of the waste rock dump are most clearly identified in "RFI - Additional Information Numerous Matters MACH Response (22 Sep 2021), Figures 8 and 10".

³ See Department's Assessment report [133]: 40 residences will be so significantly affected that they are either entitled to require acquisition or to require the mine to put in place mitigation measures so that they are provided with an opportunity for respite inside their dwellings. The residents of a further 8 significantly affected private dwellings have now either sold to the mine or vacated.

⁴ See report and presentation of Mr Sean Murphy (Groundwater expert for HTBA).

- e) there would be over 876 million tonnes of carbon dioxide equivalent (CO₂e) in Scope 1, 2 and 3 emissions from greenhouse gases; and
 - f) there would be permanent loss of cultural heritage⁵ and scenic landscape values.⁶
7. The HTBA and its experts have concerns that significant impacts of the project have been underestimated or not assessed by the proponent and its experts.

B. NATURE OF THE COMMISSION'S ASSESSMENT OBLIGATIONS UNDER SECTION 4.15

8. The Commission is required by s 4.15 of the EP&A Act to consider the likely impacts of the proposal, and to understand the scale and intensity of its environmental, social and economic costs and benefits.
9. In particular, s 4.15 obliges the Commission to take into consideration the following when determining a development application:
- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
 - (c) the suitability of the site for the development,*
10. It is significant to recall that the project (SSD 10418) is a new development application for a new project.

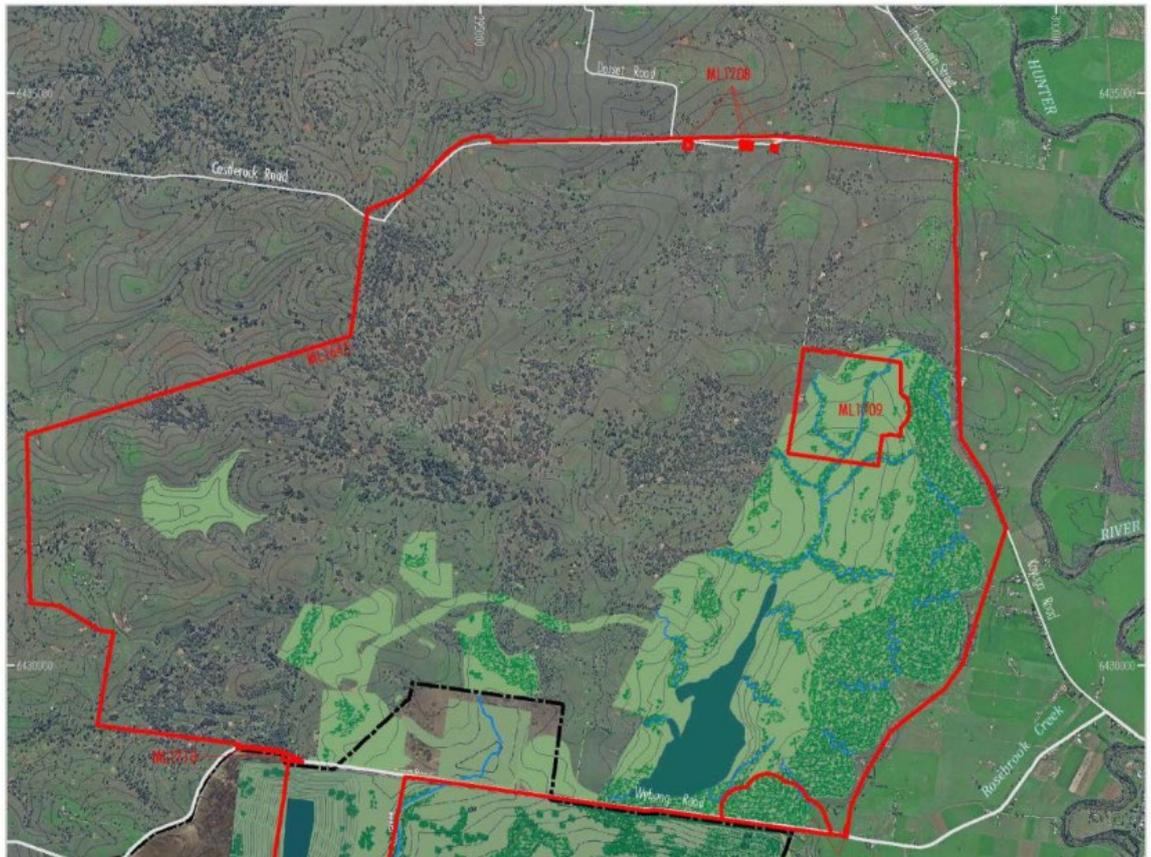
C. RELEVANCE OF THE CURRENT CONSENT AND SECTION 4.63(3)

11. The terms of the current consent (SSD 97/92) (**current consent**) limit permissible mining on the site as follows:
- a) The current consent expires on 22 December 2026. No mining is permitted after this date, and the site is to be rehabilitated consistent with Appendix 2 *Conceptual Project Layout, Figure 4 Conceptual Final Landform* (extract below, full copy in in the Annexure).

⁵ The extensive number of identified sites of Aboriginal cultural heritage significance is depicted in the Draft Conditions Appendix 5, page 56 – Heritage Sites,

⁶ See report and presentation of Mr Michael Wright (Visual and landscape expert for HTBA).

FIGURE 4 - CONCEPTUAL FINAL LANDFORM



b) Condition 2 of the current consent requires mining to be carried out in accordance with the project layout plans. It provides:

“The Applicant must carry out the development:

- (a) generally in accordance with the EIS, EA (MOD 1), EA (MOD 2), EA (MOD 3), EA (MOD 4) and project layout plans; and*
- (b) in accordance with the Statement of Commitments and conditions of this consent.*

Notes:

- The project layout plans are shown in Appendix 2.*
- The Statement of Commitments is reproduced in Appendix 3.*

An extract from Figure 2, Project Layout Plan at 2025 is below (full copy in the attachment).

b) what could, hypothetically, be the case with the current consent, as modified, to have its term extended for a further 12 years (as provided for in MOD 3 August 2018).¹⁰

13. In its letter dated 14 July 2022, the Department rejected this characterisation of its assessment approach. The HTBA draws the Commission’s attention to the following:

a) The Department’s referral letter describes the project as follows: “*The project involves optimisation of the existing Mount Pleasant mine to extract an additional 247 million tonnes (Mt) of run-of-mine (ROM) coal, by deepening (by approximately 85 metres) and extending part of the open cut areas*”. A similar description is provided in the Executive Summary in the Assessment Report. The figure of 247 Mt ROM coal is derived through the following calculation:

- i. 406 Mt (ROM tonnes proposed to be extracted by the project) + 38Mt (volume understood to be intended to be extracted under the current consent 2018 to end 2022); that is, current consent plus project results in 444 Mt;
- ii. less 197 Mt being the volume of coal proposed to be extracted under the 1999 consent as originally granted (being the volume that could have been extracted had mining commenced in 2000).

b) The Executive Summary, in paragraph 5 and paragraph 14 (Table 1), compares the “Proposed Project” to the “Approved Project”. Other than the specification of the “*life of mine*”, the information provided in respect of the “Approved Project” broadly identifies what was approved in 1999; that is, what could have happened had mining commenced in 2000 under the original terms of consent, - not what could lawfully be carried out under the current consent. For example, set out below are some of the key activities lawfully permissible under the current consent (2nd column) compared with what is proposed for the project:

Proposed Project	Current Consent
406Mt ROM coal	Approx 80Mt ROM coal ¹¹
Open cut Mining in South Pit, North Pit and Warkworth South Pit ¹²	Open cut mining in South Pit
Approx 2,800 ha disturbance area	Approx 1,500 ha ¹³ disturbance area

¹⁰ See, for example, the discussion of the air and noise impacts and heritage/biodiversity impacts.

¹¹ Assumed 38Mt extracted to end 2022 + maximum 42Mt 2023- 2026.

¹² See Appendix 2, Project Layout Plan DA92/97 as modified 19 September 2011.

¹³Disturbance area to 30 June 2023 1,495 ha (see MTP MOP & RMP 2021-2023, Table 7-3, p 90). Comparison of Appendix 2, Figure 1 and Figure 2, in the current consent indicates limited additional disturbance between 2021 and 2025.

Proposed Project	Current Consent
Tailings dam capacity 36 million cubic metres. Dam wall approximately 69m high, total disturbance area 166ha (incl environmental dam)	Tailings dam described in the current Waste Management Plan as follows: maximum embankment height 30.5m, storage area at full supply level 28 ha, storage capacity at emergency spillway level 3,106ML ¹⁴ <i>[Note: approval as originally granted proposed staged/terraced fines emplacement area -see submission of Mr Michael White (Mining Engineer)]</i>
Single waste rock emplacement along eastern boundary of site (approx 6km) to maximum height of 360m AHD	Waste rock emplaced both in pit and in the Eastern out of pit emplacement area to max. elevation in specified locations of between 220m AHD – 240m AHD ¹⁵ <i>[Note: see presentation of Mr Michael Wright (Visual and Landscape expert for HTBA) (slide 8) for details of emplacement landforms under consent as originally granted]</i>

c) Consistent with the approach taken in paragraph 14, Table 1, the merit assessment undertaken by the Department generally compares the project to what might have been the case had mining commenced in 2000 and proceeded in accordance with the consent as originally granted in 1999. Notable exceptions to this comparison approach are: (i) the analysis of the fines emplacement area (which compares the project to the fines emplacement disturbance area under the original consent merged with a scaled up version of the alternative single dam concept approved in MOD 3); and (ii) the analysis of noise and air quality impacts which compares the level of impact permitted to occur until December 2026 under the current consent against the project's predicted impacts (which will continue until 2048).

14. The Department's Assessment Report and the 14 July 2022 letter identify s 4.63(3) of the EP&A Act as relevant. However, it is to be recalled that s 4.63 has a very specific application and context, and that regard is also to be had to the requirements of clause 68 of the *Environmental Planning and Assessment Regulation 2021*. Section 4.63 provides as follows:

¹⁴ Mt Pleasant Waste Management Plan, Appendix 1, p 3.

¹⁵ MTP MOP & RMP 2021-2023, Plan 4B, p 147.

(1) A development consent may be surrendered, subject to and in accordance with the regulations, by any person entitled to act on the consent.

...

(3) If a development consent is to be surrendered as a condition of a new development consent and the development to be authorised by that new development consent includes the continuation of any of the development authorised by the consent to be surrendered—

(a) the consent authority is not required to re-assess the likely impact of the continued development to the extent that it could have been carried out but for the surrender of the consent, and

(b) the consent authority is not required to re-determine whether to authorise that continued development under the new development consent (or the manner in which it is to be carried out), and

(c) the consent authority may modify the manner in which that continued development is to be carried out for the purpose of the consolidation of the development consents applying to the land concerned.

15. Clause 68 prescribes the procedure for voluntary surrender of a consent where any part of the development approved under that consent has commenced. It requires *inter alia* provision by the applicant of a written notice indicating that:

(3)(a) the commenced development was carried out in compliance with—

(i) each condition of the development consent that is relevant to the commencement development, or

(ii) an agreement with the consent authority relating to the development consent that is relevant to the commenced development, and

(b) the surrender of the development consent will not have an adverse impact on a third party or the locality.

The surrender only takes effect when the consent authority notifies the applicant that it is satisfied that (i) the commenced development was carried out in compliance with each condition of the development consent; and (ii) the surrender of the development consent will not have an adverse impact on a third party or the locality (clause 68(4)).

16. The application of s 4.63(3) is preconditioned on the consent authority:

a) determining to require the surrender of an existing consent; and

b) anticipating that it would be in a position to be satisfied that (i) the existing consent has been complied with as at the date of surrender; and (ii) the surrender of the consent will not have an adverse impact.

17. Section 4.63(3) applies to the “*continuation of any of the development authorised by the consent to be surrendered*”. This also raises a temporal element as to what part of the development has lawfully commenced at the time of the surrender.
18. At its highest, the effect of s 4.63(3), should the Commission decide to require surrender of the current consent, would be to permit an assessment “discount” for the impacts of the mining that could have been lawfully carried out on the site up until December 2026.
19. Unpicking the future impacts permitted under the current consent from the impacts of the project would at best be difficult, and is in this case not possible based on the information provided to the Commission. Some of the key constraints on the activities permitted under the current consent are set out above at paragraph 11. Applying the “discount” would require identification of the impact sought to be discounted, and then a close examination of the conditions of the current consent, the various assessment reports identified in condition 2 of the current consent (ie EA (MOD1) EA (MOD2), EA (MOD3) and EA (MOD4)), the various management plans required to be complied with under the current consent, and potentially also the Mining Operations Plan (required under the terms of the Mining Leases which specify with particularity the activities to be undertaken in each calendar year) in order to identify what impact is permitted under the current consent. The Department has not undertaken this task.¹⁶
20. The Department has noted that s 104A(3) (now s 4.63(3)) of the EP&A Act was mentioned in *Wollar Progress Association Incorporated v Wilpinjong Coal Pty Ltd* [2018] NSWLEC 92 (**Wollar Progress Association**). That case involved a judicial review challenge to the SSD consent granted in 2017 for the Wilpinjong Extension Project. The consent authorised an extension area and a continuation of approved operations for a further 6 years. Mining under the 2006 approval had commenced in 6 of the 7 approved pits, but no vegetation clearing or mining had taken place in Pit 6. The 2006 approval, which was required to be surrendered under the new consent, still had 9 years to run at the time of the hearing of the judicial review challenge. One of the grounds of challenge related to whether the consent authority had adequately taken into account the totality of the biodiversity impacts, being the impacts on biodiversity located in the expansion area, as well in the area of Pit 6.
21. The applicant (the Wollar Progress Association Incorporated) contended that the biodiversity impacts of clearing a 9.5 ha area of White Box, Yellow Box, Blakeley's Red Gum Woodland located in the disturbance area for Pit 6 (**Pit 6 EEC Woodland**) had not been adequately considered. While the ecological survey in the EIS had identified the presence of the Pit 6 EEC Woodland, the tally of the area of native vegetation to be cleared in the EIS was limited to the project open cut

¹⁶ The anticipated commencement of what is now s 4.63(3) was the subject of discussion in *Wollar Progress Association Incorporated v Wilpinjong Coal Pty Ltd* [2018] NSWLEC 92 at [64] – [67].

extension and infrastructure areas, and the Pit 6 EEC Woodland was not mentioned in the Department's assessment report. The respondent (Wilpinjong Coal Pty Ltd) responded in its Response to Summons that the anticipated commencement of s 104A(3) (now s 4.63(3)) on 1 March 2018 (a few weeks after the hearing) could be relevant to the Court's consideration.

22. However, the Court (Sheahan J) did not ultimately have regard to s 104A. Instead, the Court found on the facts that *“that the likely impacts on any remaining box gum woodland in the area subject of the previous approval – the impacts of which were fully assessed in the earlier consent and modification processes, some by the PAC, which established substantive offsets – have been properly considered.”*¹⁷ This finding was based on (i) the heavy onus on the applicant to prove that Pit 6 EEC Woodland had not been considered; (ii) that the assessment process included both a review PAC and a determination PAC; (iii) the inference that the consent authority had not relied solely on the Department's assessment report, but had also given close consideration to the EIS and public submissions; and (iv) that the conditions required implementation of a biodiversity strategy involving both the existing and the required additional offsets.
23. There are important factual differences between the situation in *Wollar Progress Association* and this instance, primarily relating to the remaining length of term of the existing approval and extent of mining already undertaken. In *Wollar Progress Association*, close to 10 additional years of mining was permitted under the existing consent (at the time of grant of the new consent), and the majority of mining permitted under the previous consent had commenced. In this instance, a term of less than 4.5 years remains, and only a limited portion of authorised mining has commenced. Accordingly, in *Wollar Progress Association* the mine successfully argued that the Pit 6 EEC Woodland could and would have been cleared under the existing consent.¹⁸ The case does, however, demonstrate the difficulties that can be created for the consent authority when the Department's assessment report does not properly identify all the impacts of a proposed development.
24. In the present case, it is more difficult to see how the Department's suggested *“incremental approach”* assists the Commission undertake an assessment of the impacts of the totality of the project. The project as proposed is significantly

¹⁷ *Wollar Progress Association* at [172].

¹⁸ See *Wollar Progress Association* at [170]:

“The company's submissions continue (par 41):

As to any uncleared woodlands that remained at the time of the PAC's decision in the area of the Previous Approval, it is hardly surprising that the EIS and related materials did not address the effect of clearing such areas with great particularity, because they would be cleared anyway, regardless of whether the new consent was granted. Time is not short in this regard – the Previous Approval ran to 2026, and any remaining woodlands could have been cleared rapidly. Condition 9 of the Consent requires surrender of the Previous Approval (EB 2009), but if the Consent is invalid, as the Applicant argues, then the Previous Approval will remain in place and the woodlands in question could be cleared.”

different from the mine as originally conceived. Disturbance of most of the site (and the associated consequences for heritage and biodiversity) could not lawfully be undertaken under the terms of the current consent.

25. The present application is for a mine that is in the same general location as an existing mine. However, the application is for a mine that is twice as deep and has twice the extraction rate as that originally approved in 1999. The pits are in different locations, the tailings emplacement area is differently configured, the waste rock dumps are in a different location and of an entirely different scale, and the final proposed landform configuration is wholly unlike what was originally proposed. Similarly, the project application is for mining activities that are very different to the mining activities that can lawfully take place under the current consent. Under the current consent, only a further 42Mt ROM coal can be extracted and the area which can be subject to mining is constrained to the south-eastern section of the site.
26. A proponent is not entitled to seek to minimise the impacts of a development by comparing them to the impacts of existing unlawful works.¹⁹ Likewise, in this instance, the proponent is not entitled to seek to minimise the significant impacts of the proposed open cut mine by referring to future works that could not lawfully be undertaken under the current consent.
27. In the submission of the HTBA, seeking to minimise the impacts of the proposal by reference to hypothetical scenarios is apt to mislead, and an incorrect application of s 4.15 of the EP&A Act.

D. CUMULATIVE IMPACTS UNDERESTIMATED

28. For this proposal, an assessment of the cumulative impacts is of critical importance. As explained by Pain J in *Gray v Minister for Planning and Ors* (2006) 152 LGERA 258 (**Gray**):
 - a) Cumulative impact is a necessary element of an environmental assessment which takes into account the principle of intergenerational equity (at [124]).

¹⁹ See Preston CJ in *Ralph Lauren Pty Ltd v New South Wales Transitional Coastal Panel; Stewartville Pty Ltd v New South Wales Transitional Coastal Panel; Robert Watson v New South Wales Transitional Coastal Panel* [2018] NSWLEC 207 at [128] & [129]:

128. ... Development consent can be granted to the future carrying out of a work and the future use of works on land. However, the consideration of such future development is to be done without regard to the past unlawful works and unlawful use. As King CJ said in *Kouflidis v City of Salisbury* at 324: "The unlawful user of the land should gain no advantage from having established an unlawful use. Any argument based either directly or indirectly upon the unlawful use should be firmly rejected."

129. In this case, the land owners' argument that the repaired sea walls will not result in any additional limiting, impeding or diminishing of public access to or use of the beach beyond the limitation, impediment or diminishment caused by the existing works, and hence that the limitation caused by the repaired works cannot be considered to be unreasonable, is based on and seeks to take advantage of the unlawful existing works and use. It is to be rejected.

- b) Failure to consider cumulative impact will not adequately address the environmental impact of a particular development where often no single event can be said to have such a significant impact that it will irretrievably harm a particular environment but cumulatively activities will harm the environment (at [122]).
 - c) It also informs the precautionary approach in that knowledge of impacts which are cumulative, ongoing and long term are relevant in assessing the seriousness or irreversibility of environmental damage (at [131] – [134]).
29. In the instance of this project, the proponent was specifically required by the Secretary's Environmental Assessment Requirements (**SEARs**) to include in the EIS a "*detailed assessment of the cumulative impacts of the development, in combination with other existing and approved mining projects in the locality, with a particular focus on air quality, noise, traffic and social impacts, as well as impacts on water resource*".
30. Additionally, the question of cumulative impacts goes to the requirement under clause 2.17 of the *State Environmental Planning Policy (Resources and Energy) 2021 (Resources SEPP)* to consider the compatibility of the project with other land uses (existing, approved and preferred). Clause 2.17 provides as follows:

Before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must—

(a) consider—

- (i) the existing uses and approved uses of land in the vicinity of the development, and*
- (ii) whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development, and*
- (iii) any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and*

(b) evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a)(i) and (ii), and

(c) evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a)(iii).

31. The Upper Hunter Valley is currently experiencing significant cumulative impacts from mining on landscape values, social and community structures, heritage (and sense of place), biodiversity, air quality, noise and water. Many of the approved mines still have years to run²⁰, and many have incrementally expanded both in

²⁰ See Graph 4, Mach Response to Submissions, at page 127, depicting the considerable number of existing approved coal mines in the Upper Hunter Valley until at least 2048.

mine footprint and mine life since they were originally approved. It is uncontroversial that there has been a steady encroachment of mining on what has been traditionally agricultural land with specialised equine and viticulture uses in the Hunter Valley.²¹ The Commission will recall the evidence of residents including Ms Beverley Atkinson, Ms Wendy Wales and Dr Bob Vickers on air quality impacts.

32. The Department's *Cumulative Impact Assessment Guidelines for State Significant Projects* November 2021 provide that a cumulative impact assessment ought be (inter alia):

- *proportionate to the impacts of the project and any material cumulative impacts that may result in the wider area from the project operating in conjunction with other relevant future projects*
- *technically robust and deals effectively with the inevitable uncertainties associated with assessing the cumulative impacts of multiple projects over long periods of time.*

33. HTBA's experts have advised that the assessment of cumulative impacts by the proponent is inadequate. They refer, inter alia, to the following:

a) Relevant adjacent approved projects appear to have been excluded. For example:

- i) the proponent's cumulative noise assessment has failed to have regard to the Maxwell Underground Consent 2020 and the Dartbrook Consent 2022 which approved the operation of coal handling and processing plants (**CHPP**) and rail loading facilities located in the outskirts of Muswellbrook and Aberdeen (respectively) to each process over 10 million tonnes of coal per annum 24 hours a day / seven days a week;
- ii) the acoustic impacts associated with the proposed Dartbrook mine rejects emplacement outside Aberdeen have not been included; and
- iii) likewise, the air quality impacts of the operation of the Dartbrook CHPP and associated rejects emplacement have been excluded.²²

b) There is a mismatch between data from air quality indicators in the Upper Hunter Valley (particularly in the Muswellbrook area) and mine cumulative impacts predicted by mine operators.

c) Experience has demonstrated that cumulative impacts may be more than a mere sum of individual impacts, as the Commission heard from Mr Murphy in relation to groundwater.

²¹ See, for example, *Newcastle Herald* study confirming that now 65% of the Hunter Valley floor has been consumed by mining.

²² See presentation and report of Mr Peter Stephenson (air quality expert for HTBA) and the report of Mr Frank Butera (acoustic expert for HTBA).

- d) Cumulative impact assessment is usually prepared by a proponent's consultants considering the predicted impact of other mines as specified in those mine's environmental impact assessments. However, in part because of the application of the "*non-discretionary standards*" in the Resources SEPP or because of unrealistic assumptions in the assessment materials, mines may not and are not in fact required to, adhere to the predictions made in their assessment materials. This effectively causes an impact creep.
 - e) The apportionment of responsibility for impacts between proximate mine operations is a vexed issue. This can be seen in the disregard of impacts where another mine is required to acquire the property on request.
 - f) The revolving nature of landownership may not be accounted for in the assessment of cumulative impacts; for example, almost all of the land identified in the assessment materials as "*Dartbrook controlled*" is now no longer owned by that mine. Nevertheless, the assessment of the project discounts impacts on this land as mine owned.
 - g) It is unclear how the cumulative impact assessment undertaken by the proponent and its experts has accounted for the significant variations between a mine's predicted yearly output, its permitted maximum output, and its actual annual output.
34. The environmental implications of the existing approved mines in the Upper Hunter Valley and the associated cumulative impacts (for example, in relation to air quality, noise, water, and visual) will be experienced for decades to come and will create permanent changes in landform and in the availability and quality of water resources.
35. Similarly, any approval of this project will have implications long into the future. It is critical to consider how these cumulative impacts will be experienced in the future; for instance, if (and as appears certain) climate patterns change, impacts affecting water resources and soil productivity are likely to be of considerably increased significance.

E. KEY IMPACTS OF THE PROJECT

36. The key environmental impacts of the project are its significant implications for air quality, groundwater and surface water and the visual and landscape character of the Upper Hunter Valley. The substantial contribution of this mine to greenhouse gas emissions and climate change is also a significant issue. HTBA's experts, Mr Peter Stephenson (air quality), Mr Owen Droop (surface water), Mr Sean Murphy (ground water) and Mr Michael Wright (visual and landscape) have addressed these issues both in their presentations in the public hearing and their written reports provided to the Commission. The Commission also heard from other experts on these issues in the public hearing. HTBA's acoustic expert, Mr Frank

Butera, was unable to present at the hearing, but has prepared a written report outlining his concerns with the acoustic assessment undertaken by the proponent.

(I) AIR QUALITY

37. The Commission is specifically directed to consider the impacts of the project on air quality and potential implications for the health of residents of the Upper Hunter. The primary object of the EP&A Act in s 1.3(a) is *“to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State’s natural and other resources”*. Clause 2.16(4) of the Resources SEPP specifically draws attention to the *National Environmental Protection Measures (NEPM)* PM 2.5 standard. Clause 2.16(4) identifies the following standard: that the development does not result a cumulative annual average level greater than 25 µg/m³ of PM₁₀ or 8 µg/m³ of PM_{2.5} for private dwelling.
38. Of particular relevance to a cumulative impact assessment is that air quality in the Upper Hunter Valley (and especially in the Muswellbrook area) is increasingly of concern. The airshed in the Upper Hunter Valley reaches the limit of, and often exceeds, relevant NEPM air quality standards. This is the case even when the existing approved mines are not operating at their approved capacity. The Commission has heard from numerous residents and experts on this issue.
39. Suggested condition of consent B28 does not have the effect of ensuring that PM 2.5 levels will be below that standard. This issue is addressed in Mr Stephenson’s report.
40. This proposal will, if approved, only exacerbate already poor air quality. On cumulative air impacts alone, the proposal is not in the public interest and should be refused.
41. The air quality analysis undertaken by the proponent’s expert does not provide confidence in its predictions. In particular:
 - a) there is a paucity of data provided with the air quality assessment; and
 - b) the cumulative impact of the recently approved operation of the Dartbrook CHPP and use of the rejects emplacement area (both just outside Aberdeen) has not been included in the assessment.

(II) WATER

42. In addition to the general duty to consider the environmental impacts of the proposal (s 4.15), the Commission is specifically directed by the Resources SEPP to consider impacts on water resources and whether and how they can be avoided or minimised to the greatest extent practicable.
43. Clause 2.20(1) of the Resources SEPP provides:

Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following—

(a) that impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable ...

44. Consistent with the approach taken by Preston CJ in *Planners North v Ballina Shire Council* [2021] NSWLEC 120 (***Planners North***)²³, clause 2.20 has the effect of requiring the Commission to understand the impacts surface and groundwater resources, to identify how and whether they could be avoided and how they could by condition be minimised to the greatest extent practicable. This duty requires a level of specificity which would not be satisfied by deferral of this consideration to the preparation of a management plan to be prepared to the satisfaction of the Secretary.
45. In the HTBA's submission, the legacy impacts of the final void and tailing emplacement are significant, and the impact of perpetual losses to baseflows in the Hunter River, Dart Brook and Sandy Creek has not been given the consideration it warrants. The assessment of potential impacts on Groundwater Dependent Ecosystems is problematic, and the drawdown impact (in excess of 10m) on private land located within the Hunter River alluvium NE of the mine appears to have been ignored, as the Commission heard from Mr Sean Murphy (groundwater expert for HTBA).
46. Further, the operational water model has not been calibrated with real-world data so as to demonstrate a real-world application. It is based on historic climate data that is over 10 years old and fails to take into account the climate variability that is likely to prevail in decades to come. As a consequence, the risk of contaminating spills and discharges is underestimated, as is the risk of water shortages. As the Commission heard from Mr Owen Droop (surface water expert for HTBA), even accepting such an inappropriately narrow climate risk framework, the surface water assessment raises serious potential for climate conditions to be such that the mine would have insufficient water to operate for 2 years of its 26 years of operations.

²³ See *Planners North* at [77]:

The satisfaction required by the precondition is that the development will not significantly impact the adjacent coastal wetlands in these respects. Reaching this satisfaction requires evidence, firstly, that the outcomes or objectives required by cl 11(1)(a) and (b) can be achieved, secondly, of the means by which the outcomes or objectives will be achieved, so as to allow the Court to be satisfied that the outcomes or objectives will be achieved, and thirdly, of the clear criteria against which achievement of the outcomes or objectives must be assessed.

47. It is apparent that the risks associated with the single tailings dam (and 60m dam wall) have not been properly considered or minimised. In fact, in comparison to the mine as originally conceived in 1999, the risks associated with the tailings storage have significantly increased.
48. The HTBA submits that there is a need for a regional groundwater model that incorporates all the mines and is continuously updated to show the effects of each mine amendment upon the regional groundwater. For instance, the Commission recently approved an extension of term for the Dartbrook CHPP. The 2020 Dartbrook Mod 7 assessment was based on an analysis of a Mackie Environmental Research report in 2000 (which sought to incorporate the Mt Pleasant coal mine as originally approved). If the project is approved, this will negate the overall findings of the Dartbrook model flows and drawdowns as there are significant changes to the groundwater regime caused by the extended project void. It is likewise unclear how the project would affect long term drawdown on the Mt Arthur, Maxwell and Bengalla mines, and by default the Hunter River alluvial soils.²⁴
49. Absent a comprehensive calibrated regional groundwater model, any approval of the project is fraught with uncertainty. This is a clear case where, consistent with the precautionary principle, *“a cautious approach should be adopted in evaluating the various relevant factors in determining whether or not to grant consent”*.²⁵

(III) VISUAL/ LANDSCAPE CHARACTER

50. This mine, if the subject of development consent, will change the landscape permanently. The final landform proposes a 6 km long waste rock dump that will rise in parts 200m above the valley floor. It will block views from Muswellbrook to distant mountains. It will even block line of sight to the Rossgole telecommunications tower. Ms Beverley Atkinson (Transcript, day 1, page 31) described the waste emplacement dump as follows: *“A 33-storey building planned on the town edge would cause mayhem in council’s planning department, so why no reaction to the mass of this project, equating to around 30,000 such buildings, up to 66 storeys high, jammed together and filled with rocks? It’s as high as the nearby Barrington foothills and would rise centrally in the mouth of the Upper Hunter Valley”*.
51. The impacts of the proposed operations of the project on residents, tourism and the equine industry will be significant. The visual impacts on residents and visitors are discussed in detail in the expert report of Mr Michael Wright (visual and landscape expert for HTBA). The impacts on the equine industry are discussed in the separate written submission of the HTBA.

²⁴ Note that AGE prepared both the 2020 groundwater assessment for the Dartbrook mine, as well as the groundwater assessment for this project.

²⁵ *Greenpeace Australia Ltd v Redbank Power Company Pty Ltd and Singleton Council* (1994) 86 LGERA 143 per Pearlman J at 154.

(IV) GREENHOUSE GAS EMISSIONS

52. Under the EP&A Act and the Resources SEPP, the Commission has an obligation to consider the GHG emissions of the project:
- a) section 4.15(1)(a) of the Act requires the Commission to take into consideration the Resources SEPP. Under clause 2.20(2) of the SEPP, the Commission “*must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and must do so having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions. to consider an assessment of the GHG emissions, including downstream emissions, and must do so having regard to any applicable state or national policies, programs or guidelines concerning those emissions*”.
 - b) section 4.15(b) requires assessment of environmental impacts (GHG emissions and climate change being an environmental impact);
 - c) section 4.15(e) requires consideration of the public interest;
 - d) section 4.15(1)(c) requires consideration of the suitability of the site for development; and
 - e) clause 2.20(1)(c) of the Resources SEPP specifies that the Commission, before granting consent to a mine, “*must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following: (c) that greenhouse gas emissions are minimised to the greatest extent practicable*”.
53. The mandatory consideration in clause 2.20(1)(c) obliges the Commission to understand the GHG emissions of the project (Scope 1, 2 and 3), to consider the requirement of undertaking the development in an “*environmentally responsible manner*” (that is, best practice), and to consider how, if at all, the GHG emissions could by condition be minimised to the greatest extent practicable. This mandatory consideration is at a level of specificity, and immediacy, which would not be satisfied by its deferral by the Commission to the preparation of a management plan to the satisfaction of the Secretary.
54. The GHG emissions of the proposal are very substantial. On a total project basis:
- a) Scope 1: 13.9 Mt CO₂e²⁶

²⁶ This figure is updated from the original EIS (Appendix S) of 12.02 Mt CO₂e (Scope 1) and 2.17 Mt CO₂e (Scope 2) due to Mach’s revision of its emissions factor for fugitive methane from 0.012 to 0.0201 (still well below the national Greenhouse Gas Accounting standard for NSW open cut coal mines of 0.061).

b) Scope 2: 2.17 Mt CO₂e

c) Scope 3: 860 Mt CO₂e²⁷

55. The proponent has revised the manner of calculation of Scope 1 emissions. Unfortunately, it has not provided the CoalBed Energy Consultants' technical report or requested its GHG expert (Todoroski) to prepare a stand-alone updated GHG estimate which details estimate emissions through the life of the project. It would seem appropriate that this information be made publicly available, and that the proponent be requested to provide a detailed assessment of GHG emissions for each year of the project which takes into account the revised fugitive emission calculations. The preparation of such a consolidated updated assessment report would seem to be called for, required, having regard to the requirements of clause 2.20(2) of the Resources SEPP. The inconsistent use within the documents provided by the proponent of annual averages and project averages, and unspecified assumptions regarding the project life (22 or 25 years), create confusion and raise the concern that actual GHG emissions are being statistically flattened.
56. The revised estimate of Scope 1 emissions set out in the Mach letter of 31 March 2022 letter provides for an increase in the volume of fugitive emissions on an annual basis throughout the project, with a significant increase from 2033 to a peak in the order of 550 kt "*fugitive emissions*" in 2043.²⁸ By way of example, the annual Scope 1 emissions estimate for 2043 is 0.894 Mt CO₂e.²⁹
57. In addition to concerns about a paucity of information regarding the calculation of the GHG impact of fugitive emissions, HTBA's expert Mr Stephenson also considers that the Scope 1 diesel emissions of the project may have been underestimated. In this regard, it appears that Mach may not have included diesel emissions of vehicles operated on site by the principal contractor(s). Additionally, there is some uncertainty around the disturbance area assumed in the GHG estimate. The GHG estimate has assumed disturbance at 40ha per year for the operational life (assumed to be 25 years). This provides a total disturbance area of 1000 ha. Review of the current "*disturbed area*" identified in the Mining Operations Plan suggests that in the order of an additional 1305 ha will be disturbed if the project is approved and works in reliance on that approval commence in 2023.
58. The Mach letter of 31 March 2022 also states that it is not feasible to minimise Scope 1 fugitive emissions because (1) it is an open cut coal mine (that is, all emissions will escape uncontrolled); and (2) the same seams are being mined by

²⁷ By way of comparison: Tahmoor Scope 1 and 2 28Mt CO₂e; Rocky Hill Scope 1 and 2 1.808Mt CO₂e.

²⁸ See Mach Response to GHG Queries (31 March 2022), Chart 2, page 5.

²⁹ See Mach Response to GHG Queries (31 March 2022), page 10, paragraph 6.

adjoining mines, and hence it is not technically possible due to hydraulic pressure constraints needed to undertake in-seam gas depressurisation.³⁰

59. This has a number of critical implications for the Commission's consideration of the assessment of the GHG emissions (required under clause 2.20(2) of the Resources SEPP), and the Commission's own assessment of the GHG emissions of the project (required under s 4.15 of the EP&A Act and clause 2.20(1) of the Resources SEPP). In particular:
- a) Mr Stephenson and others have raised concerns about the reliability and completeness of the GHG assessment information provided by the proponent.
 - b) By digging deeper into the gassier seams exponentially, the proposal increases the Scope 1 fugitive emissions of the mine; that is, rather than being designed to minimise emissions to the greatest extent practicable, as required by clause 2.20(1)(c) of the Resources SEPP, the proposal actually appears to be designed to maximise them.
 - c) The high levels of fugitive emissions trapped in the coal seams would suggest that the site is not suitable for open cut mining (cf s 4.15(1)(c) of the Act).
 - d) The proponent has indicated that there are no current technologically feasible measures to mitigate these fugitive emissions, but has said that should such measures become available in the future, and should it consider that those measures are reasonable and feasible (that is, cost effective) to implement, it would accept a condition to do so. The Department has in its draft conditions sought to craft a condition to that effect (proposed condition B34). In HTBA's submission proposed condition B34 would not have the effect of minimising Scope 1 GHG emissions, does nothing to minimise Scope 2 or 3 emissions, and the "*performance measures*" specified in Table 4 have no utility as they represent the maximum predicted emissions, and not a best practice.
 - e) As Mr Michael White (mining engineer) explained in his presentation to the Commission (Transcript, Day 1, p 56), the proponent has the ability to significantly reduce its diesel emissions (also Scope 1) by using available emissions reduction technology. It has chosen not to do so. Draft condition B31(b) is limited in two respects; first, by a requirement that the steps be considered reasonable and feasible; and second, in that it only applies to new "non-road" diesel equipment and not to stationary diesel equipment.
 - f) The project is designed so that maximum fugitive emissions occur in the later stages of the mine life at a time when the capacity to offset these emissions will be limited, and the predicted economic costs of carbon will be at its highest: note the evidence of Justin Field MLC (Transcript, Day 1, p 44). In this respect, HTBA submits that the Commission should require that an analysis be

³⁰ See Mach Response to GHG Queries (31 March 2022) pages 6-9.

undertaken (and made publicly available) which compares for the later years of the project the asserted benefit to the State of NSW of the mine (that is, royalties) against the cost to the State of NSW in offsetting the fugitive emissions of the mine.

60. As the Commission is aware, the NSW Government has committed to achieving net zero emissions in NSW by 2050 and has published a “*Net Zero Plan Stage 1 2020 – 2030*”.³¹ The *Net Zero Plan Stage 1: 2020-2030 Implementation* indicates:
- a) an intention to reduce GHG emissions in NSW to approximately 25Mt CO₂e by 2045³²; and
 - b) that NSW hopes to achieve a reduction of 1.4Mt Co₂e total by 2020 by investing in carbon reducing initiatives.³³³⁴
61. Mach has now stated that in 2043 alone, its Scope 1 emissions will be 894,500 tonnes CO₂e.
62. The Department has said that the Climate and Atmospheric Science (**CAS**) Branch has “*confirmed that the project has been accounted for in the NSW GHG emissions projections in the Department’s Net Zero Stage 1: 2020-2030 Implementation Update*”.³⁵
63. However, closer review of the CAS letter dated 10 December 2021 shows that the fugitive emission factor adopted by the Department in making this assessment was 0.003 tonnes CO₂e/ ROM tonne.³⁶ The Commission will recall that Mach has advised that the appropriate fugitive emission factor, averaged over the project life (assumed 25 years), is 0.0201 tonnes CO₂e /ROM tonne; that is, if 406M ROM tonnes, this would be 8,160,600 tonnes CO₂e fugitive emissions (excluding fugitive emissions after mining ceases). CAS noted that its calculations predict only 1.3Mt CO₂e over the life of the project. This raises some significant issues with the CAS accounting approach and the assumption that the mine’s fugitive emissions have been properly accounted for.
64. Unfortunately, the Department’s Assessment Report is of limited assistance in relation to these matters as despite being dated May 2022, it appears not to have taken into consideration the additional information provided by the proponent in its

³¹ See *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* (2021) 250 LGERA 39 (**Kepeco CoA**) where the NSW Court of Appeal considered that it was for the Commission to determine what policies were applicable, and that it could have regard to “*NSW Climate Change Policy Framework*: see *Kepeco CoA* at [64], [185] and [187].

³² See *Net Zero Plan Stage 1: 2020-2030 Implementation*, Figure 4, page 28.

³³ See *Net Zero Plan Stage 1: 2020–2030*, Appendix 1, Table A1, p 36.

³⁴ See pp 14, 25 and 43 of the Department’s Assessment Report identifying the Implementation Report as relevant.

³⁵ Paragraph 199, p 43 of the Department’s Assessment Report.

³⁶ Mach Response to GHG Queries (31 March 2022), page 2 paragraphs 3 and 4.

31 March 2022 letter. For example, paragraph 205 of the Department's Assessment Report is directly contradicted in the 31 March 2022 letter. The increase in fugitive emissions is not gradual, and it is expected to peak at 0.894Mt CO₂e (not 0.5Mt CO₂e).

65. In *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7 (**Rocky Hill**), Preston CJ at [554]-[555] observed that the magnitude of the GHG emissions of a development could justify its refusal:

554 In absolute terms, a particular fossil fuel development may itself be a sufficiently large source of GHG emissions that refusal of the development could be seen to make a meaningful contribution to remaining within the carbon budget and achieving the long term temperature goal. In short, refusing larger fossil fuel developments prevents greater increases in GHG emissions than refusing smaller fossil fuel developments.

555 In relative terms, similar size fossil fuel developments, with similar GHG emissions, may have different environmental, social and economic impacts. Other things being equal, it would be rational to refuse fossil fuel developments with greater environmental, social and economic impacts than fossil fuel developments with lesser environmental, social and economic impacts. To do so not only achieves the goal of not increasing GHG emissions by source, but also achieves the collateral benefit of preventing those greater environmental, social and economic impacts.

66. In *Rocky Hill* Preston CJ held that:

- consideration of the impacts of the mining project on the environment and the public interest justified considering not only the Scope 1 and Scope 2 emissions, but also the Scope 3 emissions of the proposed mine (at [513]); and
- the GHG emissions associated with the project and their likely contribution to adverse impacts on the climate system, environment and people added a further reason for refusal of the development. (at [556]).

In so concluding, Chief Justice Preston observed that:

- All of the direct and indirect GHG emissions of the mining project would impact on the environment. All anthropogenic GHG emissions contribute to climate change (at [514]).
- There was a causal link between the proposed mine's cumulative GHG emissions and climate change and its consequences. The project's cumulative GHG emissions would contribute to the global total of GHG concentrations in the atmosphere (at [525]).

- It mattered not that this aggregate of the project’s GHG emissions may represent a small fraction of the global total of GHG emissions. The global problem of climate change needs to be addressed by multiple local actions to mitigate emissions by sources and remove GHGs by sinks (at [515]).
- In absolute terms, a particular fossil fuel development may itself be a sufficiently large source of GHG emissions that refusal of the development could be seen to make a meaningful contribution to remaining within the carbon budget and achieving the long term temperature goal (at [554]).

67. In its assessment of the Bylong Coal Project in 2019, the Commission found that the GHG emissions from that project (a quarter - on any view significantly less - of that from this proposal), coupled with its other environmental impacts (in particular on groundwater), warranted its refusal. A Class 4 challenge to the Commission’s consideration of the GHG emissions from that project was dismissed by the Land and Environment Court, and on appeal the NSW Court of Appeal.

68. The following table identifies the GHG emission estimates for each of the Rocky Hill and Bylong mine proposals and the Mt Pleasant Optimisation Project (expressed in CO_{2e}):

	Rocky Hill ³⁷	Bylong ³⁸	Mount Pleasant Optimisation Project
Scope 1	1.567 Mt	2.2 Mt	13.897 Mt
Scope 2	0.242 Mt	1.3 Mt	2.165 Mt
Scope 3	36.3 Mt	203 Mt	860.158 Mt

69. The refusal of development consent for this project on the ground of GHG emissions alone is plainly warranted.

F. NEED FOR CLOSE SCRUTINY OF THE PROPONENT’S ECONOMIC ASSESSMENT

70. Ultimately, the only reason that a project of this nature is capable of approval is if can be clearly demonstrated that its economic benefits materially outweigh its

³⁷ See *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7 at [429]: “The Air Quality and Health Risk Assessment for the amended EIS estimated the CO_{2-e} (tonnes) for Scope 1, 2 and 3 emissions for the Project as being 1,566,685 (Scope 1 emissions), 241,891 (Scope 2 emissions), and 36,283,171 (Scope 3 emissions) (Table 18.1, p 2A-160).”

³⁸ See *Kepeco CoA* at [16]: “In 6.14.3, the Commission set out the appellant’s own assessment of GHG emissions from the project which were, with figures rounded, (i) 2.2 million tonnes of carbon dioxide-equivalent (CO_{2-e}) for Scope 1; (ii) 1.3 million tonnes of CO_{2-e} for Scope 2 and (iii) 203 million tonnes of CO_{2-e} for Scope 3: par 657.”

considerable adverse environmental and social impacts, in the long term as well as the short term, consistently with principles of ESD.

71. The cost benefit analysis (**CBA**) provided by the proponent is dependent upon assumptions in relation to coal price, assumed exchange rates, operational costs, capital costs, future price of carbon, continuous operating output³⁹ and employment figures⁴⁰ over a 26-year period. None of these can be regulated or controlled by conditions of consent.
72. The extraction, handling, and loading and transport of 406 Mt of ROM coal until December 2048 would have profound and irreversible impacts on the environment and the Upper Hunter community.
73. Critically, the CBA in the EIS assigns a nil cost to all adverse environmental impacts on the assumption that they can and will be consistently avoided or mitigated.⁴¹
74. The HTBA submits that each of the assumptions in the CBA (and the resulting predicted economic benefit assessment) must be subjected to at least the same rigorous level of scrutiny as is applied to the assessment of environmental impacts.
75. As just submitted (and sought to be demonstrated), the proponent's economic analysis of climate change impacts and GHG emissions may be significantly in error.
76. In order to properly scrutinise the proponent's economic assessment, the Commission requires further information in relation to the following:
 - a) The future offset cost for carbon under net zero future needs to be sensitivity tested in the economic analysis. The analysis should include Scope 1 and 2 and Scope 3 emissions. In relation to the Scope 1 and 2 emissions that will be required to be offset in NSW, the future offset cost of carbon (especially in the later years of the project) should be sensitivity tested having regard also to the likely royalty benefits in those years.
 - b) On 24 December 2021, the DPIE requested Mach to "*recalculate the net benefits of the Project in net present value terms and ensure that GHGE costs*

³⁹ The proponent's own experts acknowledge that production at the mine will be contingent on commercial constraints applicable at the time:

- there are many coal mines in the Upper Hunter which are approved and un-commenced, or in care and maintenance or standby;
- operational output varies annually and mines do not operate at their maximum permitted output;
- mines will close or reduce operations (be placed on standby or in care and maintenance) if their commercial environment changes. This leaves the community with a lingering and uncertain environmental legacy especially where remediation is delayed.

⁴⁰ Given the increasing trend towards automatization of mining, particularly underground mining, one must doubt the asserted employment figures even if the mine operated at capacity continuously over the next 26 years.

⁴¹ See the expert reports and presentations of Professor Penny Sackett and Ms Nicki Hutley.

are alternatively apportioned to NSW, including a sensitivity analysis around carbon pricing". While a response was provided by Mach on 7 January 2022, due to the high level reporting of results, it is not possible to verify the calculations. Mach should be requested to provide more detail on the revised calculations so that the basis for the estimation of the externality cost can be verified.

- c) On 8 July 2022, Mach provided a Coal Market Substitution Report to the Commission. The report suggests an alternative hypothetical scenario whereby the mine would produce a lesser quantity of a slightly different form of thermal coal product. Plainly, a 30% change in coal product volume would significantly impact the cost benefit analysis. Further information would need to be provided, including an assessment of the environmental impacts of producing an alternative class of coal, should the Commission intend to give any weight to any submission by the proponent in reliance upon this report.
77. Several presentations to the Commission expressed concern as to the possible impact on employment should the project not be approved and the Mt Arthur mine cease operations. There is currently in operation at the site a mine which is a substantial employer. That mine is approved to operate until 22 December 2026. The Commission has recently approved a "new" coal mine, Maxwell Underground, which if commenced would be a significant employer⁴² until 2048. It has also approved expansions and extensions of time for numerous other coal mines in the Upper Hunter Valley.⁴³ The Mt Arthur mine has approval to operate until 2026. A BHP announcement reported on 16 June 2022 identifies an intention to seek an extension of term for the Mt Arthur mine until 2030. The HTBA understands that at closure, rehabilitation work on the site will continue for at least 15 years. The proponent has provided in its Response to Submissions at page 127 a graph (Graph 4) which demonstrates the considerable number of existing coal mines approved to operate in the Upper Hunter Valley until at least 2048.
78. No assessment has been undertaken of the impacts of an open cut mine of the scale proposed operating for 26 years in close proximity to areas in the Equine Critical Industry Cluster identified in the Strategic Agricultural Land Map under the Resources SEPP. In this instance, the proponent has sought to sidestep the Gateway process provided for in clause 30 of the EP&A Regulation and Part 2.4 of the Resources SEPP by relying on a mining lease issued prior to 2000 to a previous owner of the site (but not acted on) before the protections provided for by the Strategic Agricultural Land Use Policy came into effect by amendment of the *Environmental Planning and Assessment Regulation 2000* in 2013.

⁴² According to information on the Maxwell's website, 250 construction jobs and 250 jobs during operations until 2048.

⁴³ For example, Dartbrook, 196 jobs: see the Gillespie Economics Cost Benefit Analysis, July 2020.

79. The HTBA, its members and operators in the tourism and viticulture industries are working towards a long-term sustainable future for residents in the Hunter Valley. Consideration of the economic benefits of such a future must also form part of the Commission's assessment.
80. The Commission is urged to consider the likely, indeed inevitable, consequences of the economic benefits of the project not being achieved, and the certainty of harm that would result.

G. DRAFT CONDITIONS OF CONSENT

81. If a project warrants refusal, it cannot be made otherwise by the promise of conditions, whether such conditions be labelled as "*strict*" or otherwise. This application warrants refusal because it is not in the public interest.
82. The impacts of this proposal on the visual landscape, water, ecology, community, human health and in its contribution to climate change:
- would be significant;
 - might not be perceived for some time;
 - would be irreversible; and
 - could not be "made good".
83. The purported economic benefits of the project are dependent on matters which are not (and cannot be) the subject of conditions of consent. The Commission cannot condition that the economic benefits in fact occur as suggested by the proponent.
84. Further, the conditions as drafted:
- a) do not ensure that air quality impacts will remain below the applicable health criteria;
 - b) do not ensure that greenhouse gas emissions are minimised to the greatest extent practicable; and
 - c) do not ensure that impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable.
85. As Mr Owen Droop, in his expert report, observed in relation to condition B52:
- "A characteristic of the conditions of consent recommended by the Department is the general wording of requirements for technical assessment and inherent acceptance (or non-recognition) of the uncertainty in results and potential impact reported within EIS assessments. In effect, the reported level and type of impact is*

accepted as reported by the Project Proponent and assumed to be addressed at a later stage via management plans, noting that a management plan is not required to be submitted until up to six months after development has commenced... Further, there is a lack of clear, definitive or measurable objectives are described in the recommended conditions. Conditions related to the “performance measures” to be applied to water management compliance are described generally and without meaningful measures against which to test compliance... The conditions as currently written therefore effectively postpone, until after the Project has been approved, both the requirement for a water management plan as well as the specifics of how the performance of that plan is to be measured”

A similar criticism can be made of other proposed conditions of consent which provide for management plans to be submitted and approved by the Secretary; for example, in relation to noise (B9), blasting (B24), air quality and greenhouse gas (B32), biodiversity (B62), Aboriginal cultural heritage (B68), historic heritage (B72), visual impact (B76), (rehabilitation (B91) and traffic management (B97).

86. The EP&A Act and the Resources SEPP require the Commission to consider various matters and to be satisfied that certain outcomes will be achieved if the project is granted approval subject to conditions of consent. These mandatory considerations cannot be deferred to a future management plan to be approved by the Secretary.⁴⁴

H. THE PUBLIC INTEREST: ECOLOGICALLY SUSTAINABLE DEVELOPMENT

87. The public interest is a mandatory consideration: s 4.15 of the EP&A Act. In the case of this project, the HTBA submits that the public interest is the most critical matter for the Commission’s consideration.
88. The phrase “*the public interest*” needs to be construed having regard to the subject matter, scope and purpose of the Act.⁴⁵ The public interest has been held to embrace ecologically sustainable development.⁴⁶
89. Thus, the requirement in s 4.15 of the EP&A Act to have regard to the public interest “*obliges the consent authority to have regard to the principles of ecologically sustainable development in cases where issues relevant to those principles arise*”.⁴⁷ The present is plainly such a case.

⁴⁴ See, for example, *Planners North v Ballina Shire Council* [2021] NSWLEC 120 at [77]-[80]

⁴⁵ See, for example, (as cited by Preston CJ in *Telstra Corp Ltd v Hornsby Shire Council* (2006) 67 NSWLR 256 at 268 [121]-[124]): *Carstens v Pittwater Council* (1999) 111 LGERA 1 at 25; *BGP Properties Pty Limited v Lake Macquarie City Council* (2004) 138 LGERA 237 at [117]; *Port Stephens Pearls Pty Limited v Minister for Infrastructure and Planning* [2005] NSWLEC 426 at [54] and *Telstra Corp. Ltd v Hornsby Shire Council* (2006) 67 NSWLR 256 at 268 [121]-[124];

⁴⁶ See the Hon Justice Brian J Preston “*The Role of Courts in Relation to Adaptation to Climate Change*”, a paper presented to the Adapting to Climate Change Law and Policy Conference, June 2008, at page 10.

⁴⁷ Preston *ibid* at page 11.

90. The objects of the EP&A Act include in s 1.3(b) the facilitation of ecologically sustainable development “*by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment*”. The term “*ecologically sustainable development*” is defined by reference to s 6(2) of the *Protection of the Environment Administration Act 1991* (NSW) as follows:

“ecologically sustainable development requires the effective integration of social, economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:

(a) the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by:

(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and

(ii) an assessment of the risk-weighted consequences of various options,

(b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,

(c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,

(d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:

(i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,

(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,

(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

91. Ecologically sustainable development, in its most basic formulation, is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.⁴⁸ The Commission could not reasonably conclude that the current proposal is for such development.

I. CONCLUSIONS

92. The development application is for a vast, environmentally destructive open cut coal mine. Its contribution to climate change would be significant, and its locally emitted fugitive emissions substantial and incapable of being contained.
93. The project would have profound and perpetual impacts on the local community and its landscape. The Muswellbrook and Aberdeen area is passing a tipping point. Once coal mining is finished, it will not have the environmental capacity or social structures to rebuild.
94. As Preston CJ observed in *Rocky Hill* at [399]:

“The principle of intra-generational equity provides that people within the present generation have equal rights to benefit from the exploitation of natural resources as well as from the enjoyment of a clean and healthy environment: Telstra v Hornsby Shire Council at [117]. The principle of inter-generational equity provides that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for future generations (see s 6(2)(b) of the Protection of the Environment Administration Act 1991): Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited (2013) 194 LGERA 347; [2013] NSWLEC 48 at [486], [492].”

95. Here, the benefits and burdens of the project are unevenly distributed both within and across generations. The asserted benefits of the proposal are solely economic and short term, and principally benefit the proponent and, to a lesser extent, the broader community of NSW (via tax and royalty payments). The direct burdens of the proposal (such as its environmental, social and economic costs) fall squarely on the local and regional community.
96. There must be a point at which the environmental, social and economic impacts (and costs) of any open cut coal mining – and in particular on such a scale as here proposed - outweigh any suggested and hypothetical economic benefits which have not and cannot be demonstrated to the satisfaction of the Commission.

⁴⁸ *Telstra v Hornsby Shire Council* (2006) 67 NSWLR 256 per Preston CJ at [108], referencing the World Commission on Environment and Development, *Our Common Future*, 1987 at page 44 (known as the Brundtland Report after the Chairperson of the Commission, Gro Harlem Brundtland).

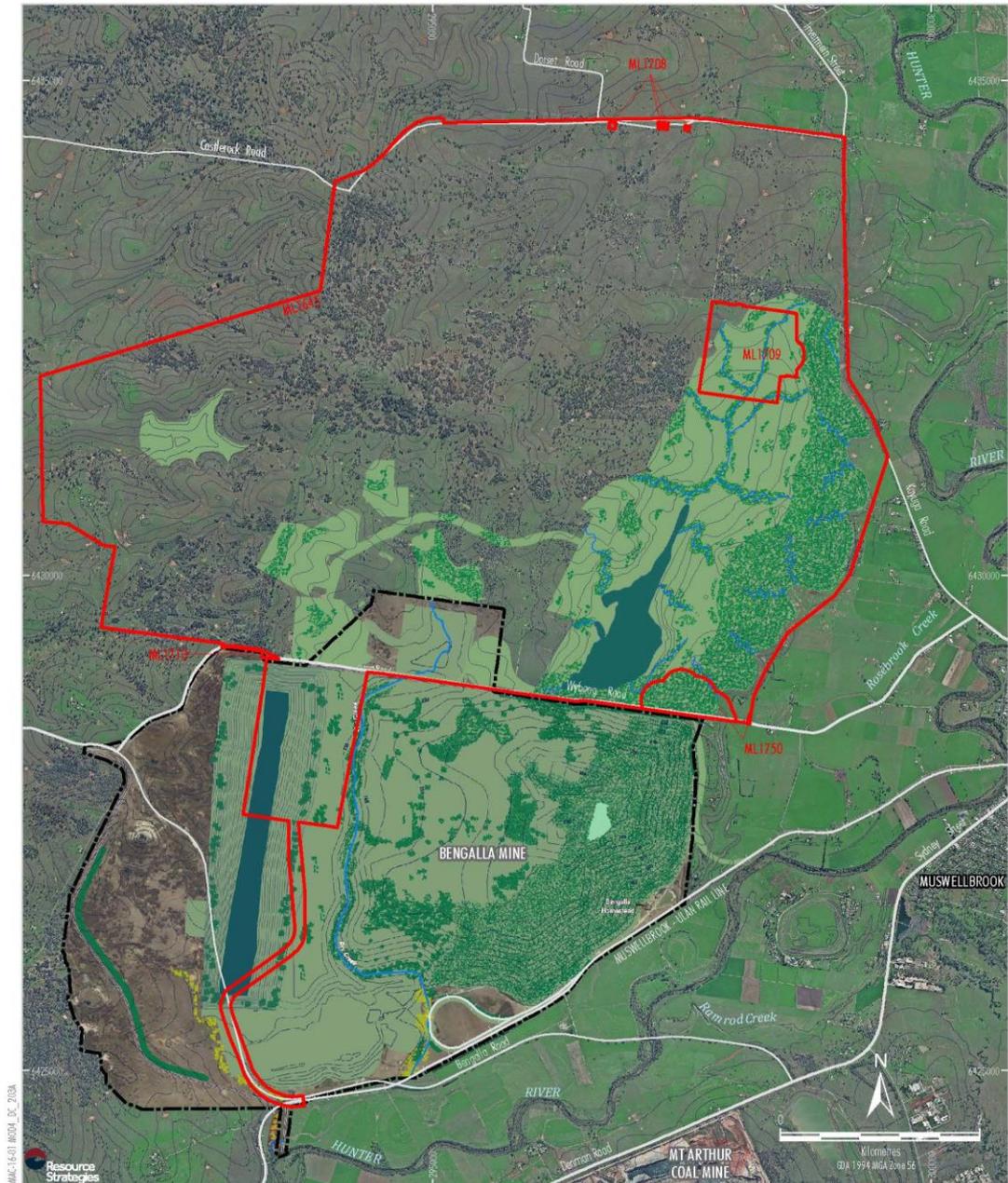
97. The public interest is a mandatory consideration under s 4.15 of the EP&A Act. The Commission could not be reasonably satisfied that this project is in the public interest. Accordingly, the development application should be refused.

20 July 2022

Dr Sarah Pritchard SC

Ballanda Sack
Beatty Hughes & Associates

FIGURE 4 - CONCEPTUAL FINAL LANDFORM



- LEGEND**
- Mt Pleasant Mining Lease Boundary
 - Final Void
 - Final Rehabilitation
 - Bengalla Mine Conceptual Final Landform *
 - Project Boundary (Appendix 2 of Development Consent SSD-5170) (Dated 23 December 2016)
 - Dry Creek
 - Final Void Lake
 - Rehabilitation
 - Rehabilitation Class III
 - Indicative Tree Screens (or equivalent)
 - Treed Rehabilitation
 - Indicative Restorative Area
- * Digitised from Appendix 9 of Development Consent (SSD-5170) and amended in the Mount Pleasant Operation CHPP area.

Source: NSW Land & Property Information (2017); NSW Division of Resources & Energy (2017); Department of Planning and Environment (2016); MACH Energy (2017)
 Orthophoto: MACH Energy (Aug 2016)

MACHEnergy
 MOUNT PLEASANT OPERATION
 Conceptual Final Landform
 (2026)