Environmental Defenders Office

BEFORE THE INDEPENDENT PLANNING COMMISSION

PUBLIC HEARING 7, 8 JULY 2022

FOR THE MOUNT PLEASANT OPTIMISATION PROJECT (SSD 10418)

WRITTEN SUBMISSIONS FOR

DENMAN, ABERDEEN, MUSWELLBROOK, AND SCONE HEALTHY ENVIRONMENT GROUP INC (DAMS HEG)

SUBMITTED 20 JULY 2022

Contents

A. EXECUTIVE SUMMARY

1 Denman, Aberdeen, Muswellbrook and Scone Healthy Environment Group Inc (DAMS HEG) is a local community organisation concerned about the environmental, social and economic impacts of continuing and prolonging coal mining in the Upper Hunter. DAMS HEG was formed to provide community voice to industry and all levels of government in defence of our natural environment in the interests of human health and wellbeing, and the protection of biodiversity.

2 Our client objects to the Mount Pleasant Optimisation Project (SSD 10418) (Project) because of the unacceptable impacts that will be experienced by current and future generations as a consequence of any approval of the Project.

3 DAMS HEG firstly acknowledges the First Nations and Traditional Owners of the lands on which the Project is proposed, the Wonnarua Peoples. Our client supports the views of the Plains Clan of the Wonnarua People (PCWP), the registered Native Title party for Wonnarua Peoples who object to the continued mining of their traditional lands. A representative of the PCWP has opposed the Project as it will destroy remaining land for Wonnarua Peoples to practise their Lore and customs.[1]

4 In summary, our client's primary position is that the Independent Planning Commission (the Commission) must refuse development consent for the Project. The Project is not in the public interest: it is bad for the environment, bad for the economy and bad for the community. On the evidence before the Commission, our client says that there is no legally reasonable, rational or logical basis on which the Commission can approve the Project under the Environmental Planning and Assessment Act 1979 (EP&A Act).

5 Members of the Panel would already have observed the early stages of the climate crisis, when all Australians suffered directly or indirectly through months of horrific and devastating bushfires in 2019/20, and months of heavy rains and crippling floods over the last 12 months. Many communities in NSW have been hit hard by both disasters. Continued expansion of fossil fuels, and particularly coal, will only worsen the severity and frequency of these kinds of disasters.

6 The Commission is a component of the Earth System.[2] It is an institution of the anthroposphere with the ability to effect future outcomes. The decisions this Commission and this Panel make today have an effect on the level of risk that the people of NSW face into the future. The time has come for this Commission to stop adding to the problem, and to accept responsibility for the decisions it makes under the EP&A Act.

---

[1] Submission of Scott Franks to the Commission dated 3 June 2022; Further Submission of Scott Franks to the Commission dated 20 July 2022 (Attachment K).

[2] Steffen, W., K. Richardson, J. Rockström, H.J. Schellnhuber, O.P. Dube, S. Dutreuil, T.M. Lenton and J. Lubchenco (2020) The emergence and evolution of Earth System Science. *Nature Reviews: Earth and Environment 1*:54-63.

7 The Paris Agreement has failed to prevent dangerous climate change. It is up to decision makers at all levels to apply the law in ways that are truly consistent with the public interest and ecologically sustainable development (ESD). The responsibility that sits on the shoulders of this Commission is no less than a matter of life and death for the people of NSW. This project must be refused because it is inconsistent with the public interest, ESD, and all the objects of the EP&A Act. It must also be refused because that is the only morally and economically justifiable decision.

8 The Proponent has sought a consent authority that would extend the life of, and increase production rates at its existing coal mine at a time when the United Nations Secretary-General as recently as April 2022 warned that "[i]nvesting in new fossil fuels infrastructure is moral and economic madness."[3] As Professor Sackett draws attention to in her independent expert report, NSW has been racked with consecutive disasters: the Black Summer bushfires in 2019/2022 and unprecedented rainfall and flooding events in 2022. "In some areas, recovery from one catastrophe has hardly begun before another takes place."[4]

9 At this point in time, based on the current climate, only refusal of the development consent for the Project is consistent with the objects of the EP&A Act, in particular the principles of ESD which the Commission must consider in its assessment of whether the Project is in public interest. Approving this Project now, based on the evidence, is contrary to:

(1) the principles of equity – intragenerational and intergenerational;

(2) the precautionary principle;

(3) conservation of biological diversity and ecological integrity; and

(4) the polluter pays principle.

10 Our client's view is it would be unreasonable for the Commission to determine the Project is in the public interest and it must accordingly refuse Mach Energy Australia's (Proponent) consent application.

11 On evidence before the Commission, the only reasonable conclusions and findings which it can make are those which are set out in this submission below at Findings the Commission should make.

12 This written submission supplements the oral submissions made at the public hearing into this development application on 11 July 2022 by Ms Lauren Sims, briefed by us on behalf of our client. It addresses aspects of the statutory decision-making framework applicable to the determination of the development application by the Commission.

---

[3] UN Secretary-General Antonio Guterres (4 April 2022), Press Release: Secretary-General Warns of Climate Emergency, Calling Intergovernmental Panel's Report 'a File of Shame', While Saying Leaders 'Are Lying', Fuelling Flames, <https://press.un.org/en/2022/sgsm21228.doc.htm> (accessed 20 July 2022).

[4] Attachment A, [146].

Due to time constraints at the public hearing, Ms Sims only addressed one of the issues arising in relation to the statutory framework and indicated that other aspects would be addressed in this written submission.

13 The Commission is familiar with the general statutory framework for determining State significant development applications which the Department of Planning and Environment (**DPE**) purports to address in its *Assessment Report – Mount Pleasant Optimisation Project May 2022* (**Assessment Report**). The description of the statutory framework in the Assessment Report is generally accepted, except in relation to aspects addressed in this submission. For completeness, our client sets out the statutory framework below to ensure that the Commission does not fall similarly into error when making its determination.

14 As set out in more detail below, the evidence before the Commission clearly indicates DPE has failed to properly assess the environmental, social and economic impacts of the Project. DPE's failure to properly address aspects of the statutory framework is evident by its:

(1) inappropriate comparison of "Approved Project" with "Proposed Project" in the Assessment Report;

(2) failure to properly consider *Muswellbrook Local Environmental Plan 2009* (**Muswellbrook LEP**) in the Assessment Report; and

(3) failure to consider the full economic, social and environmental impacts of greenhouse gas (**GHG**) emissions caused by the Project.

15 As such, the DPE has failed to identify the true environmental, social and economic impacts of the Project in accordance with the statutory requirements. The DPE has erred in its assessment and the Commission is unable to place any weight on its Assessment Report.

16 On behalf of our client, we engaged the following experts (under rules pertaining to independent expert witnesses in the *Uniform Civil Procedure Rules 2005* (NSW) and under the Expert Witness Code of Conduct in Schedule 7) to provide their independent opinion to the Commission, on the 'likely impacts' of the Project:

(1) Distinguished Professor Penny Sackett – climate change impacts (**Attachment A**);

(2) Nicki Hutley - economic impacts (**Attachment B**);

(3) Dr Hedda Askland– social impacts (**Attachment C**);

(4) Dr Gabriel da Silva - air quality impacts (**Attachment D**);

(5) Dr Steve Phillips – biodiversity (**Attachment E**);

(6) David Moir Report - visual amenity impacts (**Attachment F**);

(7) Dr Steven Pells - water resource impacts (**Attachment G**); and

(8) Dr Liam Phelan - workforce transition (**Attachment H**).

17 On balance, the impacts properly assessed on the material before the Commission are negative. Those impacts include:

(1) **Climate change impacts:** the Project, if approved, would contribute to the accretion of GHG emissions in the atmosphere by way of its scope 1 and 2 emissions and by the combustion of the coal that the proponent proposes to mine. The accretion of GHG emissions in the atmosphere caused by human activities has already caused in Australia:

(a) an increase in heat extremes;[5]

(b) long-term increase in extreme fire weather, and fire-season length;[6]

(c) heavy rainfall events are becoming more intense;[7]

(d) longer and more frequent marine heatwaves, and increasing acidity of oceans;[8] and

(e) "the cost of extreme weather disasters in Australia has more than doubled since the 1970s, reaching $35 billion for the decade 2010-2019".[9]

Every tonne of GHG emission contributes to warming.[10] "With every additional increment of global warming, changes in extremes continue to become larger".[11] This Project, if approved, would cause the worsening of climate change impacts.

(2) **Economic impacts:** There is high degree of risk that the Project will **deliver a net economic loss to NSW**, rather than the benefit proposed by the Proponent. There are major flaws in the calculation of the economic costs of the Project's GHG emissions that result in a gross underestimation of the cost of climate impacts. Current Guidelines used for the Cost Benefit Analysis (**CBA**) conflict with the ESD principle of intergenerational equity. There are a wide range of environmental and social costs associated with the Project, however, only the costs associate with Scope 1 and 2 GHG emissions have been quantified in the CBA. To exclude calculation of Scope 3 emissions' impacts – and their climate-related impacts on NSW – implies that they are being accounted for elsewhere in the CBA, which they are not – they are simply omitted. In addition, the CBA analysis conducted by AnalytEcon uses outdated and inappropriate discount rates

[5] Attachment A, [139].
[6] Attachment A, [140(f)].
[7] Attachment A, [140](h)].
[8] Attachment A, [140(j), (k)].
[9] Attachment A, [142].
[10] Attachment A, [339].
[11] Attachment A, [198].

(3% US Social Cost of Carbon (**SCC**)) which does not adequately address the likely impact of this Project on future generations. The choice of discount rate is too high; it underestimates the impact of climate consequences over the long timeframe which they endure. More appropriate discounting rates are either 0% or 1% and no more than 2%, according to the majority of expert opinion. As such, the Proponent has not adequately considered the principles of ESD in its economic analysis of the Project.

(3) **Biodiversity impacts:** the assessment of biodiversity impacts has not been adequate, the Project would cause adverse impacts to the remaining squirrel glider population, and the loss of the only locality in the assessment area where the striped legless lizard has been recorded. The proposal would further remove Threatened Ecological Communities (**TECs**) of Central Hunter Grey Box – Ironbark Woodland, which is listed as Endangered, and Box-Gum Woodland that is listed as Critically Endangered. Neither of these TECs can afford any further losses – hence why they have been listed for protection. Furthermore, the Proponent has not yet put in place offsets from its current consent which were originally required within 2 years of construction, such that the Project should not be approved until those requirements have been met.

(4) **Water resource impacts:** the Project will remove both groundwater and its source aquifer in regions of open-pit mining, and ongoing seepage into the mining pit will cause depressurization of adjacent groundwater resources. The groundwater model underestimates the likely impacts to highly productive alluvial groundwater due to the adoption of low hydraulic conductivity values which are not supported by reasoning or testing. There is a high risk of the proposed tailings storage facility failing, in the event this occurs, it will impact human safety and the environment. The Proponent has failed to address the risks associated with the tailings dam in the Environmental Impact Statement (**EIS**) and there is little information provided in relation to the design, specification and management of this facility. The proposal to leave the mine void open will create a toxic 'pit lake' which will over time become more concentrated with salts and other chemical constituents. There is no remediation plan to address this impact on the environment, rather this legacy will be passed on to future generations.

(5) **Air quality impacts:** Muswellbrook already experiences significant exceedances of national standards of PM2.5 both on yearly and daily measures. Exposure to PM2.5 has been linked to negative health impacts such as illnesses impacting the respiratory and cardiovascular systems. In recent decades, the scientific understanding of the PM2.5 exposure on human health has advanced significantly. In response, the threshold requirements have become increasingly more stringent. At present there is no threshold below which exposure to PM2.5 is safe and increased exposure is expected to correlate with increased health burdens. The Project will inevitably result in degraded air quality at Muswellbrook and nearby populations centres. The Project is an additional

significant PM2.5 pollution source that will push annual exceedances to higher levels and make it less likely that Muswellbrook will meet annual PM2.5 air quality requirements. The EIS does not set out any mitigation or avoidance strategies to help meet the annual PM2.5 standard and the mitigation measures described to help meet daily PM10 and 2.5 standards will not help with meeting annual targets. It would be unreasonable to approve the Project in circumstances.

(6) **Visual amenity:** The landscape character of the Hunter Valley region is being continually degraded of as a result the engineered and unnatural approach to the placement of overburden from mining operations and the consistent failure of remediation projects which appear to rarely, if ever, deliver on the promises of reinstatement of the diverse woodlands and grasslands habitats lost. The Proponent's Visual and Landscape Impact Assessment (**VLIA**) omits the impact in perpetuity on the horizon line with the proposed finished level of the waste rock emplacement excessively exceeding the height of the existing landform. The positive effect of the rehabilitation claimed by the Proponent is significantly overstated and complete remediation of the site to mimic or resemble its appearance prior to mining will not be possible. DPE has failed to fully consider the ramifications of the Project, given the extent of "high" visual impact reported. The Department has also neglected to provide any timeframe or performance specification on the remediation and rehabilitation of the landscape given the propensity for remediation action to fail, strict timeframes are required.

(7) **Social impacts:** The social impacts of the proposed Project are significant and that the proposed mitigation strategies are ineffective. The Project will have significant adverse impacts on the visual amenity and rural quality of Muswellbrook and the surrounding villages. Rather than mitigating impacts, some of the strategies proposed including the Eastern Out of Pit Emplacement, may themselves be an intrusion and do not offer a solution that incorporates people's lived experience and connection to Muswellbrook and the Upper Hunter as a place. There is a distinct inequity embedded in the development, which exposes some parts of the population (landholders in the rural villages next to the mine, women, Aboriginal people and people in low-income households) to distinct impacts, which is not adequately accounted for. Although the Social Impact Assessment (**SIA**) recognises the interconnected nature of social, environmental and health impacts, the overarching EIS treats social impacts as separate to the environmental impacts of the Project and the changes that the mine will present, both short and long term, to the landscape. The details in the SIA about the social impacts are undermined in the general presentation and summaries of social impacts in both the SIA and the broader EIS. The failures of the Department to adequately recognise the social impacts of the Project has resulted in a severe omission in the draft Development Consent, and there is no requirement for a Social Impact Management Plan (**SIMP**). Considering the severity of the impacts projected, a SIMP must be built into the Development

Consent should the Project be approved. Furthermore, due to the high likelihood for future displacement of local community due to acquisition of rural properties in the small villages surrounding the mine and ongoing adverse impacts, legacy acquisition/mitigation rights should carry over to the Project.

(8) **Workforce transition issues:** There is little prospect of the proposed Project creating jobs of any longevity. Instead, approval of the Project would likely lead to the perverse outcome of limiting Hunter communities' prospects for a just and orderly transition away from coal mining to sustainable regional employment. The NSW Government is implementing measures to support workers and communities in coal mining areas to transition away from coal mining and coal fired power production, announcing millions of dollars in job creation across the renewable energy sector and to support coal communities to transition away from coal mining. At a time of fundamental change in the energy sector, approving this project will draw focus away from the imminent local and regional dimensions of the socio-economic transition away from fossil fuels that are needed, and the community may miss out on the various opportunities being presented. The proposal will necessarily accelerate climate change, and climate change impacts are increasingly disruptive across employment in multiple sectors, and across Australia. Jobs in reef tourism in Queensland are threatened by climate change, through increased prevalence of coral bleaching making the Great Barrier Reef a less attractive tourist destination. In a very real sense, proposed jobs in coal mining in the Hunter would undermine existing and future jobs in other industries in the Hunter, across NSW and other states.

18 Our client also makes reference to the submission of the Institute for Economics and Financial Analysis (**IEEFA**), who has provided an independent opinion on a Coal Market Substitution Study the Proponent provided to the Commission that was not included as part of its EIS (**Attachment I**). In brief, IEEFA notes that the Study's assertion that high calorific value coal will be favoured going forward is factually flawed as "price will remain the key factor determining where importers source their coal from into the long term".

19 In addition to the factual flaws raised in IEEFA's submission, the Proponent's Coal Market Substitution Study, as a matter of logic, does not provide an answer to the Project's contributions to climate change (see below from [In answer to the Project's GHG emissions and climate change impacts, the Proponent contends that the same or worse environmental harm will occur if the proposed Project is not approved, because total future GHG emissions will be either the same or greater if the Project is not approved, than if the Project were approved. To support this argument, the Applicant commissioned CRU Consulting to prepare a Coal Market Substitution Study (**Substitution Study**) which was submitted to the Commission on 5 July 2022.204]).

20 Our client also provides the latest climate change evidence which the Commission should accept as facts that are relevant to the assessment of the 'likely impacts' of the Project on climate change (**Attachment J**).

21 Based on the material before the Commission, it is unreasonable, illogical, or irrational for it find that the Project is in the public interest and to grant development consent for the Project. The only reasonable conclusion is the findings set out below at from [328], which should be made.

22 On the evidence before the commission, including having regard to the findings below, the only reasonable conclusion is the development consent for the Project should be refused.

B. FACTUAL BACKGROUND

23 The Commission is the consent authority for the Project under s 4.5(a) of the EP&A Act and clause 8A(1)(b) of the State Environmental Planning Policy (State and Regional Development) 2011. In respect of the Project, over 50 submissions were duly made by way of objection to the Project's EIS.

24 On 9 September 2021, the Minister for Planning and Public Spaces wrote to the Commission with the following request:

> 1. Conduct a public hearing into the carrying out of the Mount Pleasant Optimisation Project (SSD 10418) prior to determining the development application for the project under the Environmental Planning and Assessment Act 1979, paying particular attention to:
>
> a) the Department of Planning, Industry and Environment's assessment report, including any recommended conditions of consent;
>
> b) key issues raised in public submissions during the public hearing; and
>
> c) any other documents or information relevant to the determination of the development application.
>
> 2. Complete the public hearing and make its determination of the development application within 12 weeks of receiving the Department's assessment report in respect of the project, unless the Planning Secretary agrees otherwise

25 The DPE Assessment Report for the Project was published on 31 May 2022, the referral letter of the same date from the Director of Resource Assessments provides:

> The project involves optimisation of the existing Mount Pleasant mine to extract an additional 247 million tonnes (Mt) of run-of-min (ROM) coal, by deepening (by approximately 85 metres) and extending part of the open cut areas. The project also involves increasing the mine's production

> rate to 21 Mt per annum of ROM coal, and extending the mine life by 22 years, to December 2048.
>
> Overall, the Department considers that, on balance, the benefits of the project outweigh its costs, and that the project is approvable subject to the recommended conditions.

26 Our client submits that the evidence establishes that the DPE has failed to properly assess the environmental, social and economic impacts of the Project. Properly assessed, those impacts are, on balance, all negative.

C. RELEVANT MATTERS TO BE CONSIDERED

27 The Commission is constituted under s 2.7 of the EP&A Act. The Commission's independence is confirmed by s 2.7(2), which states that the Commission:

> is not subject to the direction or control of the Minister (except in relation to the procedure of the Commission and any directions authorised to be given to the Commission under section 9.1 or other provision of this Act).

28 Furthermore, the Commission must exercise its powers for the purpose of achieving the objects of the Act, as relevant to its decision as set out below.

29 The objects of the EP&A Act are set out in s 1.3 as follows:

> **1.3 Objects of Act**
>
> (cf previous s 5)
>
> The objects of this Act are as follows—
>
> (a) 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,
>
> (b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,
>
> (c) to promote the orderly and economic use and development of land,
>
> (d) to promote the delivery and maintenance of affordable housing,
>
> (e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,
>
> (f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),
>
> (g) to promote good design and amenity of the built environment,
>
> (h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,
>
> (i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,
>
> (j) to provide increased opportunity for community participation in environmental planning and assessment.

30 The Commission's underlying function is identified in s 4.38(1) of the EP&A Act, which states:

> The consent authority is to determine a development application in respect of State significant development by –
>
> (a) granting consent to the application with such modifications of the proposed development or on such conditions as the consent authority may determine, or
>
> (b) refusing consent to the application.

31 That function falls to be assessed by reference to the matters in s 4.15: see s 4.39.

32 Section 4.15(1) relevantly states:

> In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application –
>
> (a) the provisions of—
>
> (i) any environmental planning instrument, and
>
> (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and
>
> (iii) any development control plan, and
>
> (iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and
>
> (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates.
>
> (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,
>
> (d) any submissions made in accordance with this Act or the regulations,
>
> (e) the public interest.

33 These submissions will return below to key components of s 4.15(1).

C-I Section 4.15(1)(a): relevant environmental planning instruments – the Mining SEPP

34 Section 4.15(1)(a) obliges the Commission to take into account relevant environmental planning instruments (**EPIs**).

35 One such instrument is the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (NSW), commonly known as the **Mining SEPP**.

36 Clause 14 of the Mining SEPP states:

> (1) 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,
>
> (b) that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,
>
> (c) that greenhouse gas emissions are minimised to the greatest extent practicable.
>
> (2) Without limiting subclause (1), in determining a development application for development for the purposes of mining, petroleum production or extractive industry, the consent authority 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.

37 Clause 14 of the Mining SEPP has been considered in a number of recent Court decisions. Those decisions establish a number of important propositions.

38 Clause 14(1) applies when considering a development application, whether or not the consent authority has decided (prima facie or finally) to grant consent to the application: *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216 at [27]-[34].

39 So far as cl 14(1) contemplates consideration of the imposition of conditions: the Commission need not *itself* propose conditions; it is not for the Commission to "plug any gaps" that arise because the proponent has themselves failed to identify appropriate conditions which minimise greenhouse gas emissions: *KEPCO Bylong Australia Pty Ltd v Independent Planning Commission (No 2)* [2020] NSWLEC 179 at [82]-[83].

40 The "greenhouse gas emissions" to which cl 14(1) refers include Scope 3 emissions: *KEPCO Bylong Australia Pty Ltd v Independent Planning Commission (No 2)* [2020] NSWLEC 179 at [85]. So much flows from a coherent construction of cl 14 as a whole: it is clear from cl 14(2) that the clause encompasses consideration of "downstream emissions" i.e. Scope 3 emissions.

41 As for cl 14(2), it is for the consent authority to decide whether a policy is "applicable": KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc [2021] NSWCA 216 at [65]. In KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc [2021] NSWCA 216, there was no error in the Commission treating as "applicable" the NSW Climate Change Policy Framework and the Paris Agreement.

42 The consent authority can consider the absence of proposed conditions minimising Scope 3 emissions in determining whether to refuse development consent: *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216 at [44]. In that matter, it was open for the Commission to make the factual finding that because the proponent had proposed to undertake the development by minimising only Scope 1 and 2 GHG emissions and not Scope 3 GHG emissions, the proponent had not minimised GHG emissions to the greatest extent practicable: *KEPCO Bylong Australia Pty Ltd v Bylong Valley Protection Alliance Inc* [2021] NSWCA 216 at [44], [138]-[140].

C-II <u>Section 4.15(1)(b): likely impacts – general principles</u>

43 Section 4.15(1)(b) obliges the Commission to take into account the likely impacts of the development.

44 Section 4.15 is the statutory successor of former s 79C(1) and, before then, s 90(1) of the EP&A Act. What Moffit P said of s 90(1) in *Parramatta City Council v Hale* (1982) 47 LGRA 319 at 340 applies equally to s 4.15(1). His Honour there said:

> The obligation is to take into consideration (a) to (s) matters which are in fact relevant, and not those which the authority or its officers considers relevant. By remaining ignorant of relevant environmental matters, an authority could not avoid its obligation to consider and, in its ignorance, give a valid consent without considering harm (not de minimis) to the environment which in fact fell within (b). Accordingly, despite the absence of a direct obligation to do so, the requirement of s. 90(1) to consider carries with it an indirect obligation, which rests upon the authority to acquaint itself with such material as will permit it to consider such s. 90(1) matters as are in fact material. Thus, if it is to consider the impact of the development upon the environment, if is to consider whether it is likely to cause harm, if it is to consider the ways the environment may be protected or, if it is to consider the ways likely harm may be mitigated, it must be aware of each of these matters, namely, what is the impact, the likely harm and the ways to protect or mitigate.

45 In other words, the Commission is obliged to acquaint itself with such material as will permit it to consider the likely impacts of the development. It is not confined to the material placed before it by the proponent. And, where likely impacts are in issue, the Commission must be aware of the impact, the likely harm and the ways to protect or mitigate.

46 Further, in assessing likely impacts, it is incumbent on the Commission to form an estimate of the likelihood or possibility: *Cartier Holdings Pty Ltd v Newcastle City Council* [2001] NSWLEC 170 at [25].

47 The expression "likely impact" has a well-understood meaning. An impact is "likely" if there is a "real chance or possibility" of the impact *whether or not* the impact is "more probable than not": *Hoxton Park Residents Action Group Inc v Liverpool City Council* (2011) 184 LGERA 104 at [43]-[47].

48 The likely impacts of a development include both direct and indirect environmental impacts: *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7 at [494].

49 In addition to the provisions of any relevant EPI, s 4.15 requires that the Commission must take into account the likely environmental impacts of the development, the likely social impacts, the economic impacts, the suitability of the site for the development, and any submissions made in accordance with the EP&A Act. The Commission must also take into account the public interest: s 4.15(e) EP&A Act. The relevant considerations to the public interest in a development are summarised below.

C-III <u>The relevance of the Minister's Statement of Expectations</u>

50 The Minister's Statement of Expectations (**SOE**) states that he expects the Commission "to make decisions based on the legislation and policy frameworks and informed by the Planning Secretary's assessment".[12] To the extent that this statement seeks to depart from s 4.15, it is bad law; the Commission is bound to make a decision in accordance with s 4.15 of the EP&A Act, and not the SOE. Namely, there is no reference to the phrase "policy frameworks" in s 4.15. Further, contrary to the suggestion in the SOE, the EP&A Act does not provide that DPE's report should be provided precedence over other evidence. This report is not a mandatory consideration. Whilst evidently a relevant consideration to be taken into account by the Commission, it is of no greater import than other relevant evidence placed before the Commission, including submissions by objectors.

[12] The Hon. Rob Stokes MP, *Statement of Expectations for the Independent Planning Commission for the period from 1 July 2021 to 30 June 2022*, 2 ('**Minister's Statement of Expectations for the IPC**')< https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/general/ipc-policies/march-2022/statement-of-expectations-fy22.pdf?la=en&hash=F37C5473EE312FB4B429A06A02785514>

51 Further, the SOE states that the Minister encourages the Commission to "seek guidance from the Planning Secretary to clarify policies or identify policy issues that may have implications for State significant development determinations".[13] This is, again, inconsistent with the proper role of the independent Commission, which is required to make a determination according to law, and not by reference to any guidance or fettering from the Planning Secretary on policy issues that may have implications for the Project.

C-IV <u>The public interest</u>

52 The public interest has a "wide ambit".[14] A consent authority may range widely in the search for material as to the public interest.[15] According to Preston CJ, "a requirement that regard be had to the public interest operates at a high level of generality".[16] The public interest must be applied having regard to the scope and purpose of the relevant statute.[17]

53 As noted above, the objects of the EP&A Act include:

(1) facilitating ESD by integrating relevant economic, environmental and social considerations;[18]

(2) promoting the social and economic welfare of the community and a better environment;[19] and

(3) to provide increased opportunity for community participation in environmental planning and assessment.[20]

54 The considerations relevant to these objects are detailed below.

C-V <u>The public interest and ESD</u>

55 Decisions of the Land and Environment Court (a superior court of record), and the Court of Appeal, have held that the public interest necessitates consideration of principles of ESD during the merits assessment of projects which are equivalent to State significant development,[21] including coal mines.[22]

---

[13] Minister's Statement of Expectations for the IPC, 2.
[14] *Shoalhaven City Council v Lovell* (1996) 136 FLR 58, [63].
[15] *Terrace Tower Holdings Pty Limited v Sutherland Shire Council* (2003) 129 LGERA 195, per Mason P [81].
[16] *Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc* (2014) 200 LGERA 375, [298].
[17] *Patra Holdings v Minister for Land* (2002) 119 LGERA 231, [11].
[18] *EP&A Act* s 1.3(b).
[19] *EP&A Act* s 1.3(b), (e).
[20] *EP&A Act* s 1.3(j).
[21] *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [58].
[22] *Hunter Environmental Lobby Inc v Minister for Planning* [2011] NSWLEC 221.

56 In *Minister for Planning v Walker* (2008) 162 LGERA 423, Hodgson JA stated at [56]:

> ... I do suggest that the principles of ESD are likely to come to be seen as so plainly an element of the public interest, in relation to most if not all decisions, that failure to consider them will become strong evidence of failure to consider the public interest and/or to act bona fide in the exercise of powers granted to the Minister, and thus become capable of avoiding decisions. It was not suggested that this was already the situation at the time when the Minister's decision was made in this case, so that the decision in this case could be avoided on that basis; and I would not so conclude.

57 In Barrington-Gloucester-Stroud Preservation Alliance Inc v Minister for Planning and Infrastructure (2012) 194 LGERA 113, Pepper J stated at [170] (emphasis added):

> I therefore reject the submission of AGL and the Minister that there was no requirement to consider ESD principles. In the words of Hodgson JA in Walker, **the time has come that "the principles of ESD" can now "be seen as so plainly an element of the public interest"** (at [56]).

58 The public interest also includes community responses to the Project. In *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, Preston CJ stated at [63]:

> The public interest also includes community responses regarding the project for which approval is sought. In *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 67 NSWLR 256; 146 LGERA 10, I confirmed (at [192]) that community responses are aspects of the public interest in securing the advancement of one of the express objects of the EPA Act in s 5(c), being "to provide increased opportunity for public involvement and participation in environmental planning and assessment" (see also *Kulin Holdings Pty Ltd v Developments Pty Ltd v Baulkham Hills Shire Council* (2003) 127 LGERA 303 at [58]). I said, however, that in considering the community responses, an evaluation must be made of the reasonableness of the claimed perceptions of adverse effect on the amenity of the locality (see also *Foley v Waverley Municipal Council* [1963] NSWR 373 at 376; (1962) 8 LGRA 26 at 30). An evaluation of reasonableness involves the identification of evidence that can be objectively assessed to ascertain whether it supports a factual finding of an adverse effect on the amenity of the locality. A fear or concern without rational or justified foundation is not a matter which, by itself, can be considered as an amenity or social impact: *Telstra v Hornsby Shire Council* at [193] and [195].

59 In the Court of Appeal proceedings, (*Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc* (2014) 200 LGERA 375), the Court endorsed this approach and held at [295]:

> Likewise, we consider that community responses to the project were relevant to the public interest. As his Honour pointed out, at [430], the evidence of the community responses was relevant to a consideration of noise impacts, air quality, visual impacts and more generally, the social impacts on the community. All of those factors were aspects of the overall public interest.

C-VI Principles of Ecologically Sustainable Development

60 The principles of ESD are defined in the EP&A Act by reference to s 6(2) of the *Protection of the Environment Administration Act 1991* (**POEA Act**).[23] The chapeau to section 6(2) provides:

> ...ecologically sustainable development requires the effective integration of social, economic and environmental considerations in decision-making processes.

61 What this requires is a balancing exercise whereby the social, economic and environmental benefits and disbenefits are weighed up to determine whether the Project should proceed.[24]

62 The Court has held that "[a] decision-maker should conscientiously address the principles of ESD in dealing with any application for a project."[25] This has been held to extend to, for instance, the utility of a cost-benefit analysis where the principles of ESD (and in particular intergenerational equity) were not accorded appropriate weight.[26]

63 It is our clients' submission that the Project will have a net negative impact on NSW in terms of social, economic and environmental effects. The Project is not in the public interest.

64 Key principles of ESD relevant to our clients' submission are outlined below.

(i) Intergenerational equity and intragenerational equity

65 The principle of intergenerational equity is set out in section 6(2)(b) of the POEA Act. It provides 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 …

66 There are three fundamental principles underpinning this:[27]

---

[23] See EP&A Act, s 1.4: "ecologically sustainable development has the same meaning it has in section 6(2) of the *Protection of the Environment Administration Act 1991*. "

[24] *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [36].

[25] *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [492]. Minister for Planning v Walker at [62], [63].

[26] Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd (2013) 194 LGERA 347, [493]-[495].

[27] See, for example, *Gray v The Minister for Planning and Ors* (2006) 152 LGERA 258; [2006] NSWLEC 720 at [118]-[126].

(1) the conservation of options principle which requires each generation to conserve the natural and cultural diversity in order to ensure that development options are available to future generations;

(2) the conservation of quality principle that each generation must maintain the quality of the earth so that it is passed on in no worse condition than it was received;

(3) the conservation of access principle which is that each generation should have a reasonable and equitable right of access to the natural and cultural resources of the earth.

67 This principle of ESD includes two ethical elements: concern for the present – intragenerational justice or equity; and concern for the future – intergenerational equity. The needs that are to be equitably shared relate to the three components of ESD: economic development, social development and environmental protection. Accordingly, equity is not limited to the use or exploitation of natural resources and in fact extends to the conservation of cultural and natural resources.

68 In *Gray v The Minister for Planning and Ors* (2006) 152 LGERA 258, the Court found that an aspect of implementing intergenerational equity is for an environmental impact assessment to assess (not only raise) cumulative impacts.

69 In Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd (2007) 161 LGERA 1, the Court found that:

> The attainment of intergenerational equity in the production of energy involves meeting at least two requirements.
>
> The first requirement is that the mining of and the subsequent use in the production of energy of finite, fossil fuel resources need to be sustainable. Sustainability refers not only to the exploitation and use of the resource (including rational and prudent use and the elimination of waste) but also to the environment in which the exploitation and use takes place and which may be affected. The objective is not only to extend the life of the finite resources and the benefits yielded by exploitation and use of the resources to future generations, but also to maintain the environment, including the ecological processes on which life depends, for the benefit of future generations.
>
> The second requirement is, as far as is practicable, to increasingly substitute energy sources that result in less greenhouse gas emissions for energy sources that result in more greenhouse gas emissions, thereby reducing the cumulative and long-term effects caused by anthropogenic climate change. In this way, the present generation reduces the adverse consequences for future generations.[28]

[28] *Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd* (2007) 161 LGERA 1, [74].

70 In *Gloucester Resources Limited v Minister for Planning* (2019) 234 LGERA 257, Preston CJ explained that even after rehabilitation of a mine, the cultural, social, environmental, and economic burdens will continue after the closure of the site. In the case of the Rocky Hill Coal Project, his Honour stated:

> The visual impact of the Project, even after mining rehabilitation, will continue. The natural scenery and landscape will be altered forever, replaced by an artificial topography and landscape. The social impacts on culture and community, especially for the Aboriginal people whose Country has been mined, will persist. A sacred cultural land created by the Ancestors of the Aboriginal people cannot be recreated by mine rehabilitation... the Project will emit greenhouse gases and contribute to climate change, the consequences of which will burden future generations.[29]

71 It is our clients' submission that the benefits which would purportedly arise from the Project are distributed to the present generation, while the "burdens are distributed to the current as well as future generations".[30]

(ii) ***Conservation of biological diversity and ecological integrity***

72 Section 6(2)(c) of the POEA Act states that "conservation of biological diversity and ecological integrity should be a fundamental consideration".

73 In this regard, the foreword to the Global Biodiversity 3 report (2010), produced by the Secretariat of the Convention on Biological Diversity, states:[31]

> to tackle the root causes of biodiversity loss, we must give it higher priority in all areas of decision-making and in all economic sectors … conserving biodiversity cannot be an afterthought once other objectives are addressed – it is the foundation on which many of these objectives are built.

74 The importance of the principle of the conservation of biological diversity and ecological integrity is highlighted in the objects of the EP&A Act, which include:[32]

> to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats …

75 In addition, it is notable that before granting consent for development for the purposes of mining, petroleum production or extractive industry, the Commission must, pursuant to cl 14(1)(b) of the Mining SEPP (emphasis added):

---

[29] *Gloucester Resources Limited v Minister for Planning* (2019) 234 LGERA 257, [415].
[30] *Gloucester Resources Limited v Minister for Planning* (2019) 234 LGERA 257, [416].
[31] Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 3*, <http://www.cbd.int/gbo3/>, 5.
[32] EP&A Act, s 1.3(e).

> 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—
>
> …
>
> (b) that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,
>
> …

76 It is our clients' submission that the Project's environmental impacts including its impact on biodiversity and contribution to climate change engage the principle of conservation of biological diversity and ecological integrity.

(iii) ***The polluter pays principle***

77 Section 6(2)(d) of the POEA Act provides:

> 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.

78 In *Bentley v BGP Properties Pty Ltd* (2006) 145 LGERA 234, Preston CJ commented at [157]:

> The fourth pillar of ecologically sustainable development is the internalisation of external environmental costs. Ecologically sustainable development requires accounting for the short term and long term, external environmental impacts of development. One way in which of doing so is by adoption of the user pays or polluter pays principle: J Moffet and F Bregha, "The Role of Law Reform in the Promotion of Sustainable Development", (1997) 6 *Journal of Environmental Law and Practice* 1 at 7.

79 This was further qualified in *Director-General, Department of Environment and Climate Change and Water v Venn* [2011] NSWLEC 118, where Preston CJ stated at [328]:

> The principle requires the polluter to take responsibility for the external costs to the environment and the community arising from its pollution. This can be done by the polluter cleaning up the

> pollution and restoring the environment as far as practicable to the condition it was in before being polluted. The polluter ought also to make reparation for any irremediable harm caused by the polluter's conduct such as death of biota and damage to ecosystem structure and functioning: *Environment Protection Authority v Waste Recycling and Processing Corp* [2006] NSWLEC 419; (2006) 148 LGERA 299 at [230] and see also *Bentley v BGP Properties Pty Ltd* [2006] NSWLEC 34; (2006) 145 LGERA 234 at [70], [157].

80 A number of cases have determined that harm caused to the NSW environment by acts or conduct outside NSW do not deprive the Court of jurisdiction to hear the matter if the pollutant was likely to have a particular consequence for the NSW environment (Brownlie v State Pollution Control Commission (1992) 27 NSWLR 78; (1992) 76 LGRA 419; (1992) 61 A Crim R 400 considered in *Lipohar v R* [1999] HCA 65; (1999) 200 CLR 485). In *Environment Protection Authority v Queanbeyan City Council* (No 3) [2012] NSWLEC 220, Pepper J at [151] on considering the extraterritorial application of the *Protection of the Environmental Operations Act 1997* (NSW) (**PEO Act**) applying *Lipohar* found:

> [149] In my opinion, the Court has jurisdiction to determine sentence as a result of the fact that the initiating act and some of the resulting pollution occurred within NSW.
>
> [150] There is no doubt, having regard to the objects of the Act and taking into consideration s 12 of the Interpretation Act, that the Act is concerned generally with the protection of the environment of NSW and that s 120 of the Act is specifically concerned with the protection against pollution of the waters of NSW.
>
> [151] In my view there in nothing in the language of either ss 120 or 241 of the Act ….. that would preclude the Court from examining the totality of the harm caused by the commission of the offence, even if part of that harm occurs in another jurisdiction. On the contrary, such a conclusion is in conformity with the objects of the Act, especially the objects expressed in s 3(d) (in which no reference to "New South Wales" is made), and with s 170 of the Act, the purpose of which is plainly to extend, and not limit, the scope of criminal liability under the Act.

81 As such, the Commission should consider scope 3 emissions as they are likely to harm the NSW environment. Such consideration is in conformity with the objects of the EP&A Act and the public interest.

82 Therefore, the polluter pays principle requires that:

(1) reparation must be made for irremediable harm caused by the Project;

(2) the responsibility to provide for the remediation of any ongoing environmental harm caused by the operation of a development must be borne by the proponent itself; and

(3) the social costs of the GHG emissions that result from the project should be borne by the proponent (such as through the purchase of equivalent GHG sequestration).

(iv) ***Precautionary principle***

83 In relation to the precautionary principle, section 6(2)(a) of the POEA Act provides:

> 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, …

84 In the seminal case *Telstra Corporation Limited v Hornsby Shire Council* (2006) 67 NSWLR 256 (**Telstra**), Preston CJ provides an explanation of how the precautionary principle is triggered, its two conditions precedent, and the concept of a proportionate response. At [128] his Honour states:

> The application of the precautionary principle and the concomitant need to take precautionary measures is triggered by the satisfaction of two conditions precedent or thresholds: a threat of serious or irreversible environmental damage and scientific uncertainty as to the environmental damage. These conditions or thresholds are cumulative. Once both of these conditions or thresholds are satisfied, a precautionary measure may be taken to avert the anticipated threat of environmental damage, but it should be proportionate.

85 As will be detailed in these submissions below, the Project's environmental and social impacts engage the precautionary principle.

C-VII <u>3.7 Application of the Public Trust Doctrine</u>

86 The public trust doctrine has clear application in respect of the Project.[33] In relation to natural resources under the public trust doctrine, the NSW Government has an obligation to protect trust resources, including coastal, riparian and navigable waters and foreshores, public lands, and the air, including the atmosphere.

87 Chief Judge Preston of the NSW Land and Environment Court has stated that 'the concept of the doctrine of public trust can be traced back to an early dispute over a

[33] For an overview of the public trust doctrine, see Tim Bonyhady, 'A Useable Past: The Public Trust in Australia' (1995) 12 EPLJ 329; Lauren Butterly, Hasimi NR, Johnson E, Koroglu R, 2020, 'Could the Public Trust Doctrine be used for climate litigation in Australia? The modernisation of the Public Trust Doctrine in the US and Canada in the context of the climate emergency', Australian Environment Review, vol. 35 - No 1, pp. 15 – 20; Joseph Sax, 'The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention' (1970) 68 Michigan Law Review 471; Gerry Bates, Environmental Law in Australia (LexisNexis, 10th ed, 2019) 26; Chief Judge Preston, 'The Role of the Judiciary in Promoting Sustainable Development: The Experience of Asia and the Pacific' (2005) 9(2-3) Asia Pacific Journal of Environmental Law 109.

proposed coalmine in Sydney Harbour in the 1890s'.[34] The Chief Judge has observed that, "The concept of the "public trust" has its roots in Roman law, and was based on the idea that certain common resources such as the air, waterways and forests were held in trust by the State for the benefit and use of the general public. A broader conception of the public trust holds that the earth's natural resources are held in trust by the present generation for future generations… The essence of the public trust is that the State, as trustee, is under a fiduciary duty to deal with the trust property, being the common natural resources, in a manner that is in the interests of the general public."[35]

88 Chief Judge Preston has noted that 'public trust law may be the "strongest contemporary expression of the idea that the legal rights of nature and of future generations are enforceable against contemporary users".[36]

89 Examples of judicial acceptance of the public trust doctrine specifically in NSW include the following.

90 *Re Sydney Harbour Collieries Co*:[37] The NSW Land Appeal Court held that the Crown occupies a position in relation to public lands as "something in the nature of a trustee under an obligation to dispose of or alienate those lands, whether permanently or temporarily, only in the interest and for the benefit of the people of this Colony."[38] The Court went on to state that it was: "the duty of the Government not only to take the greatest care to protect both present and contingent public interests, but also to obtain the best consideration for the temporary alienation of frontages which, if the Crown could be in law a trustee, it holds in trust for the health, recreation, and enjoyment of an enormous and ever-increasing population."[39]

91 *Willoughby City Council v Minister Administering the National Parks and Wildlife Act*:[40] Stein J accepted the applicant's submission that there was a public trust over national parks, and the Minister could not lawfully make an administrative decision to harm the land without a breach of the public trust doctrine.[41]

---

[34] Chief Judge Preston, 'The Role of the Judiciary in Promoting Sustainable Development: The Experience of Asia and the Pacific' (2005) 9(2-3) *Asia Pacific Journal of Environmental Law* 109, 203.

[35] Chief Judge Preston, 'The Role of the Judiciary in Promoting Sustainable Development: The Experience of Asia and the Pacific' (2005) 9(2-3) Asia Pacific Journal of Environmental Law 109, 203.

[36] Preston, Brian, 'The Role of the Judiciary in Promoting Sustainable Development: The Experience of Asia and the Pacific' (2005) 9(2-3) *Asia Pacific Journal of Environmental Law* 109, 203

[37] *Re Sydney Harbour Collieries Co* (1895) 5 Land Appeal Court Reports 243.

[38] *Re Sydney Harbour Collieries Co* (1895) 5 Land Appeal Court Reports 243 at [255].

[39] *Re Sydney Harbour Collieries Co* (1895) 5 Land Appeal Court Reports 243 at [251]-[252].

[40] *Willoughby City Council v Minister Administering the National Parks and Wildlife Act* (1992) 78 LGERA 19 (*Willoughby*).

[41] *Willoughby* [34]. For additional cases which consider the public trust doctrine, see *Palmer v The Board of Land and Works* (1875) 1 VLR 80; *Kent v Johnson* (1973) 21 FLR 177; *Woollahra Municipal Council v Minister for the Environment* (1991) 23 NSWLR 710; *Packham v Minister for the Environment* (1993) 31 NSWLR 65.

92 In the matter of *Upper Mooki Landcare Inc v Shenhua Watermark Coal Pty Ltd*,[42] the public trust doctrine was argued to be a 'second source' of the obligation of the Planning Assessment Commission ("PAC") to consider two principles of ESD. Preston CJ held that the applicant had not established that the PAC failed to consider the relevant ESD principles which meant that the ground would fail. However, in rejecting the formulation of the public trust ground in the specific way it was asserted in that case, Preston CJ left open the possibility of a future public trust doctrine argument.[43] Preston CJ distinguished between using the public trust doctrine 'as a means to establish the end' that the principles had not been considered (as in that case), and using it as 'an end in itself of being a consideration' that was not taken into account. This indicates that the public trust doctrine is to be treated as a separate obligation.

93 The NSW Government, as trustee, has a public trust duty to protect the trust assets from damage, including from the effects of climate change, so that current and future trust beneficiaries will be able to enjoy the benefits of the trust. A decision by the Commission to exercise its authority to grant consent to the Project, in light of the knowledge before the Commission about the direct contribution of this Project to higher atmospheric CO_2 concentrations, would amount to a breach of the public trust doctrine.

D. PROJECT IMPACTS AND CONSIDERATION

D-I <u>DPE's failure to properly assess Project impacts</u>

(i) Inappropriate comparison of the "Proposed Project" with the "Approved Project"

94 The Assessment Report commences by describing the proposed development the subject of the State significant development application (referred to in the Assessment Report as the "Proposed Project") by way of comparison with what is described as the "Approved Project".[44] A similar approach is taken in the Project Layout drawing, which includes areas marked "Project Continuation of Existing/Approved Surface Development (DA92/97)", Approved Disturbance Area to be Relinquished" and "Approximate Additional Disturbance of Project Extensions".

95 The Assessment Report proceeds to assess the impacts of the Proposed Project by comparison with the impacts of the Approved Project, for example:

(1) **Introduction:** "As the increase in overall coal extraction through targeting deeper coal seams, with overall no significant increase in surface disturbance (due to the Relinquishment Area) the overall impacts, including on noise, air, visual,

[42] *Upper Mooki Landcare Inc v Shenhua Watermark Coal Pty Ltd (2016) 216 LGERA 40; [2016] NSWLEC 6*.
[43] *Upper Mooki Landcare Inc v Shenhua Watermark Coal Pty Ltd* (2016) 216 LGERA 40; [2016] NSWLEC 6 [183].
[44] Assessment Report, Table 1, pp 4-6.

biodiversity and heritage, are generally consistent with the impacts of the approved mine."[45]

(2) **Surface Water Impacts:** "The project would increase the catchment area excised from the Hunter River during mining… which is unlikely to be discernible"[46] and "Local catchments would have a greater area of catchment area excised… however the excised area are similar to the approved project…"[47]

(3) **Groundwater Impacts**: "This is not significantly more than that currently predicted for the approved mine… and is less than that originally predicted for the approved mine…"[48]

(4) **Final void and landform:** "As with the existing mine, the final void would act as a long-term groundwater sink, The project would consolidate the three final voids from the approved mine into a single final void, although this single void would be considerably larger and deeper than the approved voids."[49]

(5) **Biodiversity:** "However, as part of the project, MACH would also relinquish approval to disturb an area of up to approximately 500 hectares (referred to as the 'Relinquishment Area'), resulting in no significant net change to overall disturbance area."[50] This section then goes on to assess only the impacts of the "Additional Disturbance Area" and gives weight to the consideration that "the project would forgo clearing and disturbance in the 'Relinquishment Area', which is approved for disturbance under the existing approval".[51]

96 The comparison of the Proposed Project with the Approved Project does not assist the Commission. We assume that the Assessment Report draws the comparison for two reasons, both of which are disputed for the reasons that follow.

97 The first reason the Assessment Report draws a comparison between the Proposed Project and the Approved Project is (presumably) in order to identify the likely environmental impacts of the proposed development. As the Commission is aware, in determining the development application, the Commission is required to consider the likely environmental impacts of the proposed development.[52]

98 In the context of a brown-field development application, the identification of the likely environmental impacts of the proposed development is complicated by the fact that similar, related development would likely occur on the land even if the proposed development did not proceed (or was not approved). The impacts of development that would otherwise occur even if the proposed development does not proceed are not likely

[45] Assessment Report, [115], p 30.
[46] Assessment Report, [234] p 51.
[47] Assessment Report, [235] p 51.
[48] Assessment Report, [241], p 52.
[49] Assessment Report, [256], p 55.
[50] Assessment Report, [269], p 57.
[51] Assessment Report, [283], p 58.
[52] Section 4.15(1)(b), EP&A Act.

environmental impacts of the proposed development. The impacts of the other development are usually only considered in relation to cumulative impacts.

99 The task of identifying what development would occur on the land even if the proposed development does not proceed is often approached by identifying what other development is approved on the land. This is often a convenient and appropriate method of doing so. However, it is inappropriate in the present case because the actual development that may lawfully be carried out under the current development consent (as modified) is significantly different to what appears in Table 1 of the Assessment Report as the "Approved Project".

100 The development consent as originally approved (DA92/97) permitted the extraction of approximately 197 Mt ROM coal over the life of the mine, subject to an annual extraction limit of 10.5Mt ROM coal. Mining operations were permitted until 22 December 2020. The development consent also authorised vegetation clearing and disturbance of approximately 2,800 hectares of land. The development application also included a mine layout plan that indicated mining areas and waste rock emplacement areas and an indicative final landform.

101 Although development consent was granted on 22 December 1999, mining operations did not commence until 2018.

102 The development consent was significantly amended in 2018 (**MOD 3**). This modification reflected the fact that mining had not yet commenced and sought an extension of mining operations until 22 December 2026. The shorter period of mining operations (8 years compared to 21 years) at the same rate of 10.5 Mt ROM coal per annum reduced the total amount of coal able to be extracted under the approval (from approximately 197 Mt to 84 Mt). This was reflected in the revised conceptual project layout plans and conceptual final landform plans being incorporated into the development consent, with condition 2 of Schedule 2 requiring that the development be carried out generally in accordance with the project layout plans.

103 Curiously, a plan titled "Revised Approved Surface Disturbance Plan" was also incorporated into the consent and indicated "Approximate Extent of Approved Surface Development" in areas not proposed for surface development on the project layout plans or conceptual final layout. This plan appears to be the basis for the "Approved Disturbance Area" and "Project Continuation of Existing/Approved Surface Development (DA92/97)" indicated on the Project Layout (Figure 3, p 7) of the Assessment Report.

104 It is clear from the above history that the development that can lawfully be carried out under the current development consent (as modified) is quite different to the summary that appears in Table 1 of the Assessment Report. The table below compares the description of the Approved Project in that table with the development that could lawfully be carried out under the existing development consent.

Aspect	Approved Project as described in Table 1, Assessment Report	Development that could be lawfully carried out under the existing development consent (as modified)
Coal resource	Approx. 197 Mt ROM coal	No more than 84 Mt ROM coal
Mining areas	Open cut mining operations in four named pits – South, North, Warkworth South and Piercefield Pits Mining of Wittingham Coal Measures down to the Edderton Seam in South Pit, and Vaux Seam in North Pit	Conceptual project layout plans at Figure 1 and Figure 2 of the development consent show mining only in the South Pit
Disturbance area (approx.)	2,800 hectares	Conceptual project layout plans at Figure 1 and Figure 2 and Conceptual final layout plan at Figure 4 of the development consent indicate a much smaller area would be disturbed
Mining methods	Truck and excavator and dragline (dragline not envisaged before 2026)	Truck and excavator only, given that no mining is permitted after 2026. The MOD 3 application proposed only truck and shovel and no dragline
Waste emplacement and rejects	Waste rock emplacement in-pit and in 3 out-of-pit emplacements – Eastern, South-West and North-West Emplacements (elevations up to approx. 320 mAHD)	Conceptual project layout plans at Figure 1 and Figure 2 of the development consent show waste rock emplacement only in the Eastern Out of Pit Emplacement
Rehabilitation and final landform	Two final voids associated with the North Pit and South Pit, and a third smaller void	Conceptual final layout plan at Figure 4 of the development consent shows a single void generally in the location of the South Pit

105 A second possible explanation for the comparison of the Proposed Project with the Approved Project in the Assessment Report is in the context of the proposal to require the surrender of the existing development consent as a condition of development consent for the proposed development.[53]

106 Section 4.63(3) of the EP&A Act provides (our underline):

> 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 <u>the continuation of any of the development authorised by the consent</u> to be surrendered—
>
> (a) the consent authority is not required to re-assess the likely impact of the continued development <u>to the extent that it could have been carried out but for the surrender of the consent</u>,

[53] Assessment Report, [67], p 19.

107 The above provision makes it clear that the Commission is not required to re-assess the impacts of the continuation of any development authorised by the existing development consent to the extent that it could have been carried out but for the surrender of the consent. In our client's submission, the development that could have been carried out but for the surrender of the existing development consent is the development summarised in the right-hand column of our table above.

108 At [68] the Assessment Report states that "MACH has assessed the total impact of the project in its EIS – that is the continued operation of the approved development together with the proposed expansions and changes associated with the project optimisation, including consideration of cumulative impacts". However, it is clear that the Assessment Report does not assess the total impact of the project (the continued operation of the approved development together with the proposed expansions and changes) but rather assesses the impacts by reference to the comparison with the Approved Project as can be seen at [69] "The Department has recommended conditions that incorporate the relevant requirements of the approved project that are not being re-assessed, for example existing biodiversity offset obligations" (other examples are set out above at [5]).

109 Our client submits that the comparison of the Proposed Project with the Approved Project that appears throughout the Assessment Report is inappropriate. A more appropriate comparator (or base case) is the development that could lawfully be carried out under the current development consent. We have summarised this development to the extent that it is known in the right-hand column of the table above.

110 Because the Assessment Report proceeds on the inappropriate comparison of the Proposed Project with the Approved Project, the full extent of the environmental impacts that would occur as a result of approval of the proposed development are not properly identified in the Assessment Report. It is apparent that the true impacts are significantly understated in the Assessment Report, particularly in relation to the biodiversity (disturbance areas), surface water, groundwater, final landform and visual impacts and potentially air quality (given that the current development consent does not authorise dragline mining methods).

111 In particular, the Assessment Report places weight on the 'Relinquishment Area' as an avoidance and mitigation measure (at [283] and other places). It is not correct to say that "the project would forgo clearing and disturbance in the 'Relinquishment Area', which is approved for disturbance under the existing approval". As noted above, the current development consent (as modified) includes a condition that the development be carried out generally in accordance with the project layout plans that appear in Appendix 2. Those project layout plans do not show any mining or other surface disturbance in the "Relinquishment Area"'. Even if the Commission refuses the proposed development, the "Relinquishment Area" cannot be disturbed under the current development consent. While that area may have been originally approved for

surface disturbance, the opportunity to do so was already "relinquished" by the delayed commencement of mining operations and MOD 3 of the development consent.

112 As such, our client submits that the full extent of the impacts of the Project have not been properly assessed in accordance with the statutory requirements including but not limited to biodiversity, surface water, groundwater, final landform and visual impacts, and potentially air quality. Based on the evidence before the Commission, any environmental impacts that the DPE and/or the proponent say the proposed Project is likely to have are clearly understated.

113 The Commission should not rely on or place any weight on the DPE's Assessment Report.

(ii) Failure to properly consider Muswellbrook Local Environment Plan

114 As the Commission is aware, relevant environmental planning instruments are a mandatory consideration under s 4.15(1)(a)(i) the EP&A Act. The Assessment Report considers Muswellbrook Local Environment Plan 2009 (**Muswellbrook LEP**) only in the context of permissibility.[54]

115 A proper consideration of the provisions of Muswellbrook LEP includes considering, at least, the aims of the LEP and the objectives of each applicable land zone.

116 Relevantly, the aims of Muswellbrook LEP include (clause 1.2(2)):

> *…*
>
> *(a) to encourage the proper management of the natural and human-made resources of Muswellbrook by protecting, enhancing or conserving—*
>
> > *(i) productive agricultural land, and*
> >
> > *(ii) timber, minerals, soils, water and other natural resources, and*
> >
> > *…*
>
> *(b) to manage the urban areas of Muswellbrook by strengthening retail hierarchies and employment opportunities, promoting appropriate tourism development, guiding affordable urban form and providing for the protection of heritage items and precincts,*
>
> *(c) to promote ecologically sustainable urban and rural development,*
>
> *…*
>
> *(e) to enhance the urban amenity and habitat for flora and fauna,*
>
> *(f) to protect and conserve—*
>
> > *(i) soil stability by controlling development in accordance with land capability, and*
> >
> > *(ii) remnant native vegetation, and*

[54] [59]-[65], pp 17-19 and App G, p A10.

(iii) water resources, water quality and wetland areas, natural flow patterns and their catchments and buffer areas,

(g) to provide a secure future for agriculture by expanding Muswellbrook's economic base and minimising the loss or fragmentation of productive agricultural land,

(h) to allow flexibility in the planning framework so as to encourage orderly, economic and equitable development while safeguarding the community's interests and residential amenity, and to achieve the objectives of each zone mentioned in Part 2 of this Plan.

117 The land to which the development relates is zoned variously RU1, E3, SP2, W1 under Muswellbrook LEP. The relevant objectives of those zones include:

Zone RU1 Primary Production

Objectives of zone

• *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*

…

• *To minimise the fragmentation and alienation of resource lands.*

• *To minimise conflict between land uses within this zone and land uses within adjoining zones.*

• *To protect the agricultural potential of rural land not identified for alternative land use, and to minimise the cost to the community of providing, extending and maintaining public amenities and services.*

• *To maintain the rural landscape character of the land in the long term.*

• *To ensure that development for the purpose of extractive industries, underground mines (other than surface works associated with underground mines) or open cut mines (other than open cut mines from the surface of the flood plain), will not—*

(a) destroy or impair the agricultural production potential of the land or, in the case of underground mining, unreasonably restrict or otherwise affect any other development on the surface, or

(b) detrimentally affect in any way the quantity, flow and quality of water in either subterranean or surface water systems, or

(c) visually intrude into its surroundings, except by way of suitable screening.

• *To protect or conserve (or both)—*

(a) soil stability by controlling development in accordance with land capability, and

(b) trees and other vegetation, and

(c) water resources, water quality and wetland areas, and their catchments and buffer areas, and

(d) valuable deposits of minerals and extractive materials by restricting development that would compromise the efficient extraction of those deposits.

Zone C3 Environmental Management

Objectives of zone

• *To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.*

• *To provide for a limited range of development that does not have an adverse effect on those values.*

• *To maintain, or improve in the long term, the ecological values of existing remnant vegetation of significance including wooded hilltops, river valley systems, major scenic corridors and other local features of scenic attraction.*

• *To limit development that is visually intrusive and ensure compatibility with the existing landscape character.*

• *To allow agricultural activities that will not have an adverse impact on the environmental and scenic quality of the existing landscape.*

• *To promote ecologically sustainable development.*

…

Zone SP2 Infrastructure

Objectives of zone

• *To provide for infrastructure and related uses.*

…

• *To recognise existing railway land and to enable future development for railway and associated purposes.*

…

Zone W1 Natural Waterways

Objectives of zone

• *To protect the ecological and scenic values of natural waterways.*

• *To prevent development that would have an adverse effect on the natural values of waterways in this zone.*

…

• *To ensure that development maintains and enhances the integrity of the water quality, ecosystem, health and biodiversity in or adjacent to key fish habitats.*

118 Our client submits there is no evidence that demonstrates the DPE properly considered the Muswellbrook LEP in its assessment of the Project.

119 A proper assessment of the Project would find the approval of the Project is inconsistent with the Muswellbrook LEP including its aims and the objectives of the relevant land zone in the circumstances. Approving a coal mine in the Upper Hunter at this point in time is a kind of development which will not protect, conserve or maintain productive agricultural land, nor does it promote ecologically sustainable development.

120 The Project's inconsistency with the Muswellbrook LEP is yet another factor which supports refusal.

(iii) Framework for considering greenhouse gas emissions

121 The Commission is required to consider the GHG emissions caused by the proposed development and its resultant contribution to climate change:

122 As likely environmental impacts of the proposed development (section 4.15(1)(b));

123 As an aspect of the public interest, which incorporated the objects of the EP&A Act including ESD principles (section 4.15(1)(e));

124 As a matter that has been raised in public submissions (section 4.15(1)(d)); and

125 Specifically, as required under clause 2.20(2) of the **Resources** SEPP:

> the consent authority 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.

126 The Assessment Report deals with scope 3 emissions in a superficial and dismissive manner it makes statements such as:

- the "*total estimated*" scope 3 emissions from the proposed development (**our emphasis**); [55]
- scope 3 emissions account for 98% of the emissions generated by the proposed development;[56] and
- the scope 3 emissions generated by the proposed development "represent a very small proportion (approximately 0.06%) or yearly global emissions".[57]

127 The Department also says that "Scope 3 emissions are not included in the Project emission reporting to avoid double counting".[58]

128 The assessment of scope 3 emissions in the Assessment Report is not sufficient to discharge the Commission's obligations as outlined above. Specifically, the assessment of scope 3 emissions was merely quantification of the emissions and included no assessment of the impact of those emissions having regard to applicable State or national policies, programs or guidelines.

129 Furthermore, it is important to note that the Commission's obligation to consider GHG emissions generated by the proposed development and the likely environmental impacts of those emissions is not limited by clause 2.20 of the Resources SEPP.

---

[55] Assessment Report, Table 8, p 43
[56] Assessment Report, [194], p 43
[57] Assessment Report, [198], p 43
[58] Assessment Report, p iii

130 As set out below in more detail, the approach of the DPE has taken in respect of the assessment of the likely impacts of the Project's GHG emission should be rejected.

131 Distinguished Professor Penny D Sackett addressed the Commission at the public hearing on 8 July 2022. That address is supported by a detailed written report (**Attachment A**). In very brief summary, Dr Sackett's report addresses:

(1) The risks of climate change caused by greenhouse gas emissions. She expresses the opinion that "it is reasonable to state that unabated climate change is the greatest threat to the environment and people of NSW".

(2) All emissions including Scope 3 emissions from the Project will harm the NSW environment. Characterising GHG emissions as Scope 1, 2 or 3 makes no material difference to the impact the Project, if approved, will have on the NSW environment. Whether the coal produced by the Project is burnt within or outside of NSW will not change the impact those emissions, once combusted, will have on the NSW environment.

(3) Professor Sackett identifies a number of deficiencies in the estimate of fugitive emissions from the proposed development, including the failure to account for fugitive emissions that are likely to occur after mining has ceased.

(4) The current and possible future impacts of climate change, based on a range of greenhouse gas emissions trajectories.

(5) Consideration of global and national plans to reduce greenhouse gas emissions under the Paris Agreement and through the lens of global emissions budgets and the fossil fuel production gap (the gap between commitments under the Paris Agreement and the intention to continue to produce more fossil fuels).

(6) Australia's production gap in the context of Scope 3 emissions generated from burning coal exported from Australia and a similar analysis in the context of NSW. Professor Sackett concludes that if the project is approved, it will make it harder for Australia and NSW to close the production gap and meet its commitment to reduce emissions.

(7) Calculation of the social cost of carbon arising from the proposed development and a justification of why that calculation is appropriate. Professor Sackett concludes that once the social cost of carbon is included in the economic analysis of the proposed development "*the Project would not result in a true economic benefit to the people of NSW*" and "*any benefits of the Project are far outweighed by costs borne by the majority of NSW inhabitants, particularly the youngest*".

132 The impact of all GHG emissions caused by the Project will be felt on the NSW environment. As such, all emissions must be considered in any assessment as to the impacts the Project will have on the NSW environment.

133 Based on the evidence before the Commission, it would be unreasonable, illogical and irrational to not consider the impact of the Project's Scope 3 emissions on the NSW environment.

134 Nicki Hutley also addressed the Commission at the public hearing on 8 July 2022 and has prepared a written report on the economic assessment of the proposed development. Ms Hutley explains why the cost of Scope 3 emissions should be included in the economic assessment of the proposed development. She favours the social cost of carbon approach to quantifying the economic impact of GHG emissions from the proposed development for the reasons outlined in the report. She concludes:

> "*there is a* ***high degree of risk*** *that the Project* ***will deliver a net cost to NSW****, rather than a benefit*".

135 Based on the evidence before the Commission it would be unreasonable for it to determine the Project is in the public interest.

D-II <u>Climate Change Impacts</u>

(i) The evidence

136 There is a strong factual basis that the approval of this Project at this time is not in the public interest and is contrary to the principles of ESD, in particular:

(1) the precautionary principle;

(2) the principles of inter-generational equity;

(3) conservation of biological diversity; and

(4) the polluter pays principle.

137 Based on the facts set out below, our client considers that there is no rational basis on which the Commission can approve the project.

138 As the Commission is aware, the effects of carbon in the atmosphere arising from the activities at the site, and the burning of the coal extracted from the development, are inconsistent with internationally agreed policy intentions to keep global temperature increases to well below 2 degrees Celsius (°C) above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.[59] Failure to limit warming to these levels will result in significant negative impacts on the people and environment of NSW.

[59] See EIS Appendix S, p7.

139 Our client presented evidence to the Commission from Distinguished Professor Penny Sackett, a leading climate scientist and former Chief Scientist for Australia. Professor Sackett's evidence demonstrates the immediate nature of the climate threat and the contribution that decisions made in NSW can make to either enhancing this threat or supporting global efforts to reduce this threat.[60]

140 Our client also provides additional climate change materials that the Commission should have regard to [**see Attachment J**].

141 In Professor Sackett's view, unabated climate change is likely to be the greatest overall threat to the environment and people of NSW because it is comprehensively dangerous, global, fundamental, rapid, compounding, self-reinforcing, has delayed effects and, in some cases, including effects currently underway, is irreversible.[61]

142 Professor Sackett advises that GHGs emitted by human activities are responsible for essentially all of the global warming driving climate change.[62] The primary anthropogenic GHGs are carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O).[63] Atmospheric concentrations of all these gases have risen dramatically since the 1960s at an accelerating rate.[64] The level of CO_2, the most important GHG driving current climate change, is now higher than at any other time humans have inhabited Earth[65] and about 90% of the CO_2 emitted by humans per year is from the burning of fossil fuels: coal, gas, and oil.[66]

143 The current level of global warming is about 1.2°C above pre-industrial times.[67] For comparison, the temperature difference between ice ages and the intervening periods is about 4°C – 6°C.[68] Climate impacts are hitting harder and sooner than previous scientific assessments have expected.[69] Most of the climate change impacts experienced by Australia are being felt in NSW.[70] Continued warming increases the risk that some subsystems of the Earth will cross "tipping points" that would cause irreversible changes.[71] Some subsystems already show signs of approaching these transitions, which could accelerate climate change and greatly intensify its impacts, perhaps irreversibly.[72]

---

[60] Attachment A [30]-[37].
[61] Attachment A [10].
[62] Attachment A [13], [74], [97]-[98].
[63] Attachment A [14], [75].
[64] Attachment A [14], [80].
[65] Attachment A [14], [83]-[84].
[66] Attachment A [16], [101].
[67] Attachment A [11].
[68] Attachment A [11].
[69] Attachment A [23], [194].
[70] Attachment A [173].
[71] Attachment A [12].
[72] Attachment A [12].

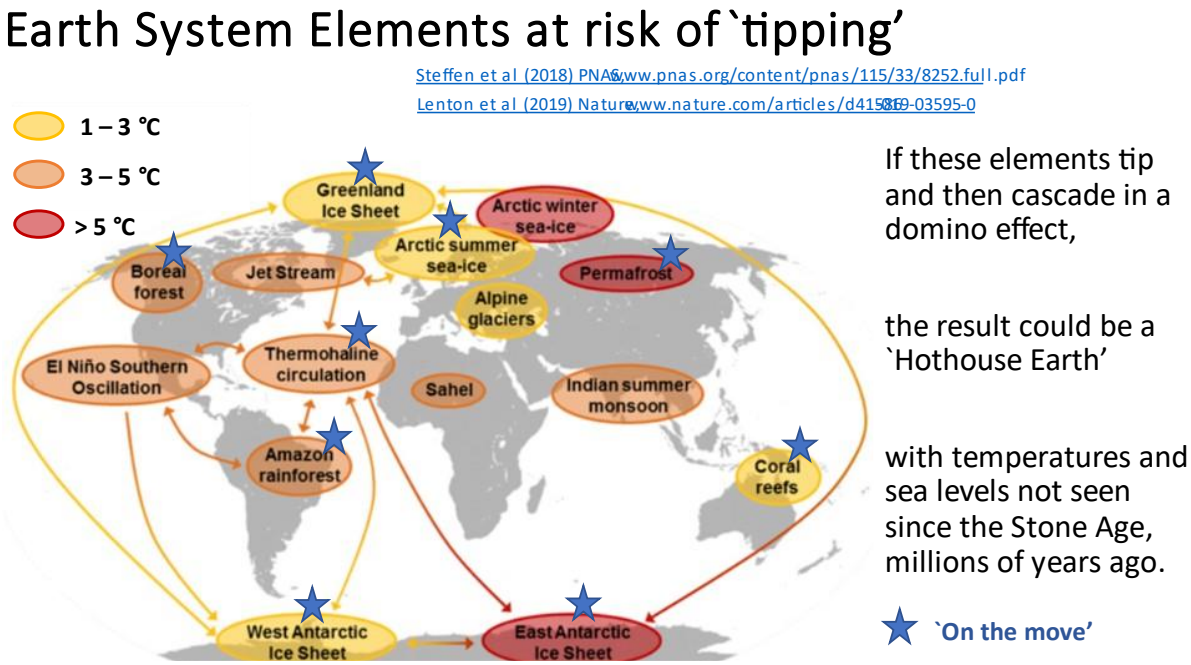

Figure 1 – Earth subsystems at risk of crossing tipping points accelerating global warming leading to future 'Hothouse Earth' state.

144 Current effects of climate change worldwide include increased severity of storms and heat waves, species extinction, wildfires, coastal inundation from rising sea levels and increased storm surge.[73] Australia is already experiencing serious climate-related impacts now.[74] Most years in Australia are now warmer than almost any year in the 20th century.[75] Long-term increases in extreme fire weather and fire-season length are seen across the country.[76] Flash droughts now happen so quickly that farmers find it difficult to adapt.[77] Three billion individual native vertebrates perished in the 2019/20 Black Summer fires.[78] Australians are five times more likely to be displaced by a climate-fuelled disaster than someone living in Europe.[79]

145 NSW has borne the brunt of many of these changes. For example, 37% of the State's rainforests were fire-affected during Black Summer, including over half of the Gondwana Rainforests.[80] In some cases, local tipping points in these forests may have already been crossed.[81] The short-term NSW health costs associated with smoke exposure is estimated to be $1.07 billion, more than any other State.[82] The 2022 floods

[73] Attachment A [19].
[74] Attachment A [139].
[75] Attachment A [20].
[76] Attachment A [20].
[77] Attachment A [20].
[78] Attachment A [20].
[79] Attachment A [20].
[80] Attachment A [21].
[81] Attachment A [21].
[82] Attachment A [21].

have had devastating effects across large portions of the State, some of which are still recovering from Black Summer fires.[83]

146 The trajectory of human emissions, particularly between now and 2030, is the most important determinant of how much more climate change is in store.[84] Already, human choices have essentially ensured that 1.5°C of warming will happen in the next two decades.[85] If the trend of rising emissions continues, in just 80 years global warming could be 3°C – 4°C above pre-industrial temperatures.[86]

147 The world is emitting greenhouse gases on a trend that would lead to substantially more dangerous climate change.[87] Nations that have committed to reducing emissions by 2030 have done so on average by only 7.5%, whereas a 30% reduction (on 2010 levels) is needed to limit warming to 2°C and a 55% reduction is needed to limit warming to 1.5°C.[88] Australia's 2030 emissions reduction target is inconsistent with limiting global warming to 1.5°C. Based on current policies as opposed to Paris Agreement pledges, warming could go as high as 3.6°C.[89]

148 Only about 8 years remain at current emission levels before the remaining global carbon budget to hold warming to 1.5°C with at least a 67% chance is exhausted.[90] In order to have even a 50% chance of holding warming to 1.5°C, 58% of oil, 59% of fossil methane gas, and 89% of coal reserves must not be extracted.[91] Despite this, governments are still planning to produce about 45% more fossil fuels by 2030 than would be consistent with a 2°C pathway and more than double than would be consistent with a 1.5°C pathway.[92]

149 Professor Sackett opines that NSW could play a major role in limiting climate change by quickly reducing its production of fossil fuels, particularly those which are exported.[93] The emissions caused by combusting the black coal NSW produces are three times more damaging to the NSW environment than its own direct emissions.[94]

150 In Professor Sackett's expert opinion, the Project is inconsistent with holding global warming to well below 2°C.[95] The Mt Pleasant Optimisation Project is significant compared to the annual task of meeting NSW's and Australia's 2030 GHG targets.[96] At a minimum, the Project will make it 2.3% more difficult for Australia to meet its

---

[83] Attachment A [21].
[84] Attachment A [22].
[85] Attachment A [22].
[86] Attachment A [22].
[87] Attachment A [25].
[88] Attachment A [25].
[89] Attachment A [25].
[90] Attachment A [27].
[91] Attachment A [28].
[92] Attachment A [28].
[93] Attachment A [30].
[94] Attachment A [30].
[95] Attachment A [31].
[96] Attachment A [32].

(new) 2030 target, and 6.36% more difficult for NSW to meet its 2030 target.[97] If the Project is approved, it will continue to emit additional methane long after the mine is closed. These after-mine-closure emissions are not included in the Applicant's estimates of fugitive emissions.[98]

151 As Professor Sackett highlights, characterising CO_2 emissions as scope 1, 2 or 3 makes no material difference to the impact the Project, if approved, will have on the NSW environment.[99] Whether the coal produced by the Project is burnt within or outside of NSW will not change the impact those emissions, once combusted, will have on the NSW environment.[100]

152 From a scientific perspective, all emissions, including Scope 3 emissions released when fossil fuels are combusted by any end user, must be included when considering environmental and social effects, including the environmental and social effects to NSW.[101] To do otherwise is to assume that the fuel is never used for its intended purpose.[102]

153 As outlined above, the Commission when considering whether to approve the Project must consider the likely impact any approval of the Project will have on the NSW environment which includes, in Professor Sackett's opinion, Scope 3 GHG emissions which are just as harmful to NSW.[103] Regardless of where Scope 3 emissions occur geographically, they have an identical effect on NSW's future climate on a tonne per tonne basis as do the Project's Scope 1 emissions.[104]

154 An argument that Project emissions represent a very small fraction of national or global emissions is irrelevant and misleading.[105] If individual consent authorities around the world were to accept this argument and act upon it to approve fossil fuel expansion projects, the climate change predicament would, per force, continue to worsen.[106] The climate change externalities of the Project will be borne disproportionately by younger and future generations, with no clear recourse or path to remediation.[107]

155 Professor Sackett concludes that based on the climate evidence presented in in her Report of the enormous risks posed by global warming surpassing 2°C, including irreversible consequences, and the contribution of the Mt Pleasant Extension in increasing that likelihood, it is her view that any benefits of the Project are far

[97] Attachment A [32].
[98] Attachment A [123].
[99] Attachment A [331], [336], [356].
[100] Attachment A [30], [33], [275], [284].
[101] Attachment A [33].
[102] Attachment A [275].
[103] Attachment A [290].
[104] Attachment A [336].
[105] Attachment A [342].
[106] Attachment A [342].
[107] Attachment A [343].

outweighed by costs borne by the majority of NSW inhabitants, particularly the youngest.[108]

156 The Commission should accept each of the opinions expressed by Professor Sackett.

157 The proposed Project will cause those impacts.

158 The proponent's evidence indicates that emissions from the Project including the decommissioning phase (2023 – 2053) will be at least 876.47Mt CO2-e including:

(1) 14.15 Mt CO2-e of Scope 1 emissions;

(2) 2.17 Mt CO2-e in Scope 2 emissions; and

(3) 860.16 Mt CO2-e in Scope 3 emissions. [109]

159 By way of comparison, in 2020, the total volume of GHG emissions attributable to Australia was estimated in 2020 to be 499 Mt CO2-e.[110]

160 Even taking *just* the Scope 1 and 2 emissions, the average annual emissions from the Project through 2030 is 0.328 Mt CO2-e, which is 0.25% of NSW 2020 total emissions, and equivalent to the total current emissions of over 20,000 individual NSW residents.[111] If the Project were to proceed, the difficulty of meeting the State's 2030 target would be increased by over 6%.[112]

161 Despite being operational for only a portion of this decade, the Project alone would make Australia's 2030 target 2.3% more difficult to meet, since with it, Australia would need to find 14.698 Mt CO2-e (instead of 14.37 MtCO2-e) of new emission reductions each year through 2030.[113]

162 The Proponent asserts in Appendix S to the EIS that "The Project's contribution to global climate change effects would be proportional to its contribution to global greenhouse gas emissions."[114]

163 Firstly, that approach is not consistent with the science, particularly as to tipping points. Professor Sackett notes that it is impossible to know which source of GHG emissions "will precipitate environmental subsystems, including those in NSW, to tip irreversibly."[115] Consistent with the precautionary principle, all sources should be treated as having the potential to cross these irreversible tipping points.

---

[108] Attachment A [344].
[109] Attachment A [115].
[110] Department of Industry Science, Energy and Resources, "Quarterly Update of Australia's National Greenhouse Gas Emissions inventory: December 2020 – Australia's National Greenhouse Accounts < https://www.industry.gov.au/sites/default/files/2021-05/nggi-quarterly-update-december-2020.pdf>
[111] Attachment A [314].
[112] Attachment A [316].
[113] Attachment A [315].
[114] at p21.
[115] Attachment A [339].

164 Secondly, the approval of an extension to a coal mine past 2021 is inconsistent with the International Energy Agency's Net Zero Emissions by 2050 pathway, which sets out a clear and credible pathway to keeping temperatures to well below 2ºC. A world in which this extension goes ahead, is a world in which that pathway is no longer available.

165 Third, as Professor Sackett remarks, "If every source of emissions that is a 'small fraction of the whole' were to be ignored, the problem would persist."[116]

166 Our client submits that in light of the projected substantial environmental harm, and the critical importance of combatting climate change now within the context of the carbon budget, the only rational response to this application would be to refuse consent to the Project. Moreover, it would be unreasonable for the Commission not to refuse consent to the Project on this basis.

167 Acceptance of the scientific facts of climate change set out above is not unprecedented, the EPA and State of NSW have previously accepted the scientific facts related to climate change as set out below.

(ii) 4.2.2 Matters that the EPA and the State of NSW have accepted, and which should be found by the Commission

168 It is convenient to say something about facts which the Environment Protection Authority (**EPA**) has agreed.

169 Our clients' submission is that the Commission can give weight to the fact that the EPA has agreed each of these facts and should adopt each of them.

170 The facts were admitted by the EPA in the context of Land and Environment Court proceedings, namely *Bushfire Survivors for Climate Action Incorporated v Environment Protection Authority* [2021] NSWLEC 92.

171 The EPA is relevantly "a statutory body representing the Crown" in right of the State of New South Wales: *Protection of the Environment Administration Act 1991* (NSW) s 5(2). Admissions by the EPA are thus admissions by the State of New South Wales.

172 The facts admitted by the EPA are as follows: see Bushfire Survivors for Climate Action Incorporated v Environment Protection Authority [2021] NSWLEC 92 at [76]:

> 1 Emissions of carbon dioxide (**CO2**) and other greenhouse gases from human activity (including power generation, industry, transport and agriculture) cause a build-up of greenhouse gases in the atmosphere.
>
> 2 The build-up of greenhouse gases in the atmosphere traps heat.
>
> 3 The build-up of greenhouse gases in the atmosphere leads to global warming, also known as climate change.
>
> 4 Anthropogenic greenhouse gas emissions contribute to anthropogenic climate change.

[116] Attachment A, [45].

5 Once emitted, greenhouse gases disperse throughout the global atmosphere where they act cumulatively to contribute to anthropogenic climate change.

6 Anthropogenic climate change has the potential to adversely alter all aspects of the natural environment.

7 Anthropogenic climate change has the potential to irreversibly alter all aspects of the natural environment.

8 Direct and indirect greenhouse gas emissions from activities in New South Wales impact on the environment.

9 NSW and Queensland are the two main producing states for black coal in Australia.

10 Australia is one of the world's largest producers and exporters of coal.

11 Global average surface temperature is approximately 1 degree Celsius (ºC) higher than pre-industrial levels as at June 2020.

12 Australia's climate has warmed by just over 1°C since 1910.

13 2019 was Australia's warmest and driest year on record.

14 Globally, 2019 was the warmest year on record without the influence of El Niño.

15 As of 2018, eight of Australia's top ten warmest years on record had occurred since 2005.

16 As of 2018, sea surface temperature in the Australian region has warmed by around 1°C since 1910.

17 Eight of the ten warmest years for sea surface temperature on record have occurred since 2010 as at June 2020.

18 Anthropogenic greenhouse gas emissions have caused changes in the basic circulation patterns of the atmosphere and the ocean.

19 Anthropogenic greenhouse gas emissions have caused increases in intensity and frequency of many extreme weather events.

20 Anthropogenic greenhouse gas emissions have caused increases in acidity of the oceans.

21 Anthropogenic greenhouse gas emissions have caused rise in sea levels and consequent increases in coastal flooding.

22 Anthropogenic greenhouse gas emissions have caused intensification of the hydrological cycle.

23 Anthropogenic greenhouse gas emissions have caused increases in the frequency and/or duration of heat waves.

24 Anthropogenic greenhouse gas emissions have caused increases in the intensity and/or duration of drought.

25 Anthropogenic greenhouse gas emissions have caused or contributed to an increase in the frequency of extreme heat events in Australia.

26 Anthropogenic greenhouse gas emissions have caused or contributed to a decrease in April to October rainfall of approximately 11 per cent since the late 1990s.

27 Anthropogenic greenhouse gas emissions have caused or contributed to sea levels rising around Australia.

28 Warming of the ocean around Australia has contributed to longer and more frequent marine heatwaves.

29 Anthropogenic greenhouse gas emissions have caused or contributed to marine heatwaves and mass bleaching events on the Great Barrier Reef in 2016 and 2017.

30 Oceans around Australia are acidifying.

31 Acidification of oceans has led to a reduction in coral calcification and growth rates on the Great Barrier Reef, which impacts recovery from coral bleaching.

32 The climate of New South Wales is changing due to global warming.

33 Anthropogenic greenhouse gas emissions have caused a 1°C increase in average temperature in New South Wales as between the period 1960–90 and 1990 to 2018.

34 Anthropogenic greenhouse gas emissions have caused the number of hot days across NSW to increasing since the mid-20th century.

35 Anthropogenic greenhouse gas emissions have caused the number of cold nights (temperatures dropping to less than 2°C overnight) to decrease since the mid-20th century.

36 In the period 1911–2013, heatwaves in parts of NSW have become longer, hotter and more frequent.

37 Australia is a signatory to the Paris Agreement.

38 Climate change cannot meaningfully be addressed without multiple local actions to mitigate emissions by sources and remove greenhouse gas emissions by sinks.

39 Global greenhouse gas emissions are currently rising.

40 If there is a 1.5-2.0°C temperature rise (relative to the period 1850-1900), the risk of widespread impacts on the most vulnerable would rise from moderate towards high.

41 If there is a 1.5-2.0°C temperature rise (relative to the period 1850-1900), the aggregated impacts of climate change around the world will increase political tensions and instabilities.

42 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels, there is a high to very high risk that most of the world's ecosystems would be heavily damaged or destroyed.

43 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels, extreme weather events would be far more severe and frequent than today.

44 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels, the most vulnerable people would increase greatly in number and, as large areas of the world become uninhabitable, migration and conflict would escalate.

45 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels the aggregated impacts around the world would significantly damage the entire global economy.

46 If there were a 4°C temperature rise (relative to the period 1850-1900) above preindustrial levels, a cascade of intrinsic tipping points in the climate system could drive ongoing strong warming even if action was taken to reduce emissions.

173 It is open to the Commission to give weight to the fact that the State of New South Wales has admitted these facts in proceedings in a superior court.

174 The Commission should make findings of fact corresponding with each of the matters in paragraph 172.

(iii) Matters the Commission can find in relation to greenhouse gas emissions having regard to the Rocky Hill decision

175 The Commission can also have regard, and give weight, to the findings of the Land and Environment Court in ***Gloucester Resources*** *Limited v Minister for Planning* [2019] NSWLEC.

176 In particular, the Commission can have regard to the following findings:

(1) Emission of greenhouse gases impacts the environment: *Gloucester Resources* at [431].

(2) Greenhouse gases change the climate by trapping outgoing heat from the earth's surface and retaining it in the lower atmosphere and at the surface, thus increasing the energy of the climate system and raising its average temperature: *Gloucester Resources* at [431].

(3) The direct and indirect emissions of a development contribute to the cumulative impacts of climate change: *Gloucester Resources* at [493].

(4) All anthropogenic GHG emissions contribute to climate change: *Gloucester Resources* at [514].

(5) "[C]limate change is caused by cumulative emissions from a myriad of individual sources, each proportionally small relative to the global total of GHG emissions, and will be solved by abatement of the GHG emissions from these myriad of individual sources": *Gloucester Resources* at [516].

177 The Commission should find as facts the matters set out in paragraph 176.

(iv) Greenhouse gas emissions and likely impacts: response to the proponent's position

178 The Proponent is unable to avoid the fact that its proposed Project, if approved, will cause the emission of 876.48 Mt CO2-e into the atmosphere. As Professor Sackett states, "every tonne of GHG emission leads to (more) dangerous warming. It is not possible to know which amount, from which source, will precipitate environmental subsystems, including those in NSW, to tip irreversibly."[117]

179 In essence, the Proponent attempts to respond to this fact by way of its submission on GHG emissions and climate change dated 4 July 2022 (**GHG submission**) and by way of a further letter dated 5 July 2022 attaching a report from CRU Consulting with respect to 'Coal Market Substitution'. The Proponent's position is broadly that:

(1) the 'Scope 3' emissions of the proposed Project are accounted for in the Expected Export Country's emissions for the purposes of international accounting;

[117] Attachment A, [339].

(2) those countries are parties to the Paris Agreement and have Nationally Determined Contributions (**NDC**) or Intended NDCs; and

(3) 'Market Substitution' will occur.

(1) *Response to the Proponent's assertions at law*

180 Firstly, the Proponent accepts that the Commission's obligation to consider the public interest includes consideration of ESD and its principles, where relevant.[118]

181 At [27] of the GHG Submission, the Proponent submits that climate change impacts and GHG emissions are "not the only considerations that inform the public interest and, certainly, are not the sole mandatory or permissible considerations." It is undoubtedly correct that climate change impacts and GHG emissions are not the sole mandatory or permissible consideration. It does not, however, follow that the Commission could not decide that the Project's contributions to climate change impacts weigh such that consent is refused. There would be no error in the Commission refusing consent because it considered that the Project was contrary to the public interest (because of its climate change impacts), or because the climate change impacts of the Project were unacceptable. In any event, the proposed Project would result in other adverse impacts, and the purported beneficial impacts are overstated, as addressed further below.

182 At [28] of the GHG Submission, the Proponent contends that the Commission is not obliged to follow the *Rocky Hill* decision; however, it is not suggested that the *Rocky Hill* decision and the reasoning in that decision are *prohibited* considerations. Plainly, the Commission is entitled to consider the decision *and* to give it weight. To the extent the contrary is submitted, the submission is wrong in law.

183 Moreover, while *Rocky Hill* is not a legal precedent, it is persuasive authority. For example, in the NSW Land and Environment Court (NSWLEC), decisions in the class 1 (merits) jurisdiction often refer to other NSWLEC merits decisions, despite not being legally bound by them: e.g. *Rocky Hill*; *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited* [2013] NSWLEC 48. In any case, in accordance with s 4.15(1)(d) of the EP&A Act, the Commission *is* obliged to consider the *Rocky Hill* decision, which has been placed before it in submissions and is plainly relevant to the Commission's task.

(2) *Response to the Proponent's position as to Scope 3 emissions and the relevance of NDCs*

184 The Proponent has accepted that the Commission can consider the Scope 3 emissions of the proposed Project in exercising its function under the EP&A Act;[119] however, it appears to place reliance on international accounting methods of Scope 1, 2 and 3 emissions and the pledges of so-called 'Expected Export Countries'. It is unclear why the Proponent, at Part B of its GHG Submission, gives so much attention to the

[118] GHG Submission, [9].
[119] GHG Submission, [27].

attribution of its proposed GHG emissions, and the National Determined Contributions (**NDCs**) of various countries, including Australia.

185 The submissions appear to have two purposes. The first is to invite the Commission to disregard the Project's Scope 3 emissions because they are some other country's responsibility.[120]

186 The second is to invite the Commission to find that the Scope 3 emissions of the Project will not contribute to anthropogenic climate change because the countries of end-use have NDCs or intended NDCs.

187 The Commission should not accept either of these invitations. In that respect we refer to paragraphs 351 to 356 of Professor Sackett's independent expert report and make the following comments.

188 As to the first invitation. The issue before the Commission is not which country, as a matter of international law, is obliged to account for the Scope 3 emissions of the Project under that country's NDC. The immediate issue before the Commission is the likely impacts of the Project on the environment of NSW.

189 Those likely impacts are that:

(1) 406 Mt of ROM coal[121] will be extracted for the purposes of sale for combustion;

(2) when combusted, that coal will cause 860.16 Mt CO2-e emissions into the atmosphere; and

(3) those emissions will worsen the impacts of climate change, including by causing impacts such as those detailed at [144] and quoted paragraphs 6 and 7 at [172] above.

190 It is the extraction and combustion of that coal which would create the purported economic benefit relied on by the Proponent to justify the grant of a consent authority, and would create the environmental (ecological, biodiversity, economic, social and cultural) harm relied on by our client.

191 The characterisation of Scope 1, 2 and 3 emissions was developed by The Greenhouse Gas Protocol Initiative for the purpose of devising "internationally accepted greenhouse gas (GHG) accounting and reporting standards for business".[122] It has since been adopted into international, national and state instruments, in particular, the *National Greenhouse and Energy Reporting Act 2007* (Cth), which has as its first object, "to introduce a single national reporting framework for the reporting and dissemination of information related to greenhouse gas emissions, greenhouse gas projects, energy

[120] See the Proponent's approach at Appendix S of the EIS, p7.
[121] EIS at [ES3.5].
[122] World Resources Institute and World Business Council for Sustainable Development, The Greenhouse Gas Protocol (March 2004).

consumption and energy production of corporations."[123] Essentially, it creates an internationally consistent method of accounting for GHG emissions so that emissions are not 'double counted'. However, as Professor Sackett remarks,

> how signatories to the Paris Agreement have decided to `account for,' or in other words, `add up,' global GHG emissions is of no consequence to the amount of damage caused by GHG emissions resulting from any project or activity, which is a matter of science.[124]

192 The Proponent accepts that "(subject to the efficacy of national and international greenhouse gas abatement measures) all sources of greenhouse gas emissions will contribute in some way towards the potential global, national, state and regional effects of climate change."[125]

193 The Proponent acknowledges that almost all of the Project's GHG emissions are those caused by the combustion of the coal.[126] Therefore, the vast majority of its contributions to the worsening of climate change impacts are caused by its Scope 3 emissions - although it should be noted that no volume of GHG emissions is insignificant.[127]

194 While the characterisation may be useful as a tool for counting global GHG emissions, and therefore feed into evaluations against the global carbon budget for example, the environment of NSW will not distinguish between Scope 1, 2 or 3 emissions when experiencing the impacts of climate change. For that reason, the Proponent's submission at paragraph 13 of the GHG Submission as to the counting of GHG emissions has little relevance to the Commission's task, and neither do the Proponent's submissions that NSW policy does not require the restriction or prohibition of new coal mines or extensions for the purposes of achieving its GHG emissions objectives.

195 As to the second invitation, this contention is wholly speculative.

196 From paragraphs 32 to 44 of the GHG Submission, the Proponent addresses the NDC's of Australia and other countries, which it refers to as 'Expected Export Countries'. Perhaps implicit in the Proponent's submission is that NDC's are apt to mitigate the impacts of climate change; however, the Proponent puts forward no evidential basis for how the existence of NDC's in Australia or elsewhere should offer any comfort to the environment of NSW and provides no rational basis for how the Commission might use their existence to deal with the proposed Project's GHG emissions.

197 The term 'Expected Export Countries' is used throughout the GHG Submission. It is defined at paragraph 36 to be "[a]ll of the countries that are expected to be the export destinations for the vast majority of the Project's coal, being Japan, India, South Korea, China, Taiwan, Vietnam, Malaysia and Thailand". The Proponent has offered no

---

[123] *National Greenhouse and Energy Reporting Act 2007* (Cth), s3(1).
[124] Attachment A, [353]
[125] EIS Appendix S, p21.
[126] GHG Submission, [13].
[127] See Attachment A, [339] and [198].

evidence for the proposition that the "expected" countries of export are the ones identified. For example, there is no citation to extant contracts of sale, or even negotiations for such contracts. This becomes relevant when addressing inadequacies in the factual basis for the Proponent's Market Substitution submissions.

198 Despite this, the Proponent sets out information about those countries domestic laws, policies and measures of export countries directed towards climate change impacts, GHG emissions and achievement of those countries' NDCs. The Proponent does not offer a clear argument as to why this is relevant, although the suggestion appears to be that if the end-user countries are parties to the Paris Agreement, and comply with their NDCs, then this would mitigate the Proponent's contributions to GHG emissions.

199 **First**, there can be little confidence in such speculation when the Proponent provides no evidence that the 'Expected Export Countries' will in fact be the export countries.

200 **Second**, there is an assumption that a party to the Paris Agreement is likely to be taking abatement measures which will ensure that the country meets its NDC, a matter which the Proponent is required to establish. No citation to any material is given for that proposition. In fact, the evidence is that countries are not acting in a manner which is likely to result in them complying with their NDCs.[128] Regrettably, announced "intentions" by States (see [36] of the GHG Submission) have proven to be no more than words.

201 **Third**, even if countries *were* acting in a manner which was likely to result in them complying with their NDCs, the precautionary principle looms large: a likelihood still leaves open the real possibility that they will not. Having regard to the gravity of the consequences here, the precautionary principle dictates giving great weight to the real possibility of non-compliance.

202 **Fourth**, also implicit in the submission is the proposition that NDCs are apt to mitigate the impacts of climate change. The Proponent describes NDCs as "unilateral, high-level policy plans that set out the contribution each country is nationally determined to make towards the global "well below 2°C" goal".[129] However, the Proponent has put forward no evidential basis for any suggestion that the existence of NDCs, and assuming full compliance with NDCs, is actually sufficient to achieve this goal. And in fact, the evidence is that present NDCs are entirely inadequate.[130]

---

[128] Attachment A at [354]; Climate Action Tracker, 'Warming Projections Global Update: Glasgow's 2030 credibility gap: net zero's lip service to climate action; Wave of net zero emission goals not matched by action on the ground' (November 2021), p. ii <https://climateactiontracker.org/documents/997/CAT_2021-11-09_Briefing_Global-Update_Glasgow2030CredibilityGap.pdf> (Accessed on 7 March 2022).

[129] GHG Submission, [35].

[130] United Nations Framework Convention on Climate Change, 'Nationally Determined Contributions under the Paris Agreement: Synthesis Report by the Secretariat' (17 September 2021), p.5-6, paragraph 13, <http://unfccc.int/sites/default/files/resource/cma2021_08E.pdf>.

203 Helpfully, the Proponent does refer to the International Energy Agency's Announced Pledges Scenario (**AP Scenario**), which makes predictions about a future world assuming that all announced pledges will be met fully and on time.[131] The Proponent relies on that scenario when considering implications on the market, but fails to address what such a scenario means for the environmental impacts of climate change. Under the AP Scenario, "the pledges themselves – even if implemented in full – do not yet put the world on track for a 1.5 °C stabilisation in global average temperatures."[132]

1. It would be unreasonable for the Commission to make an inference that the existence of NDC's in Australia or in any potential export country can mitigate the impacts of the GHG emissions from the proposed Project.

(3) *Response to the Proponent's Market Substitution argument*

204 In answer to the Project's GHG emissions and climate change impacts, the Proponent contends that the same or worse environmental harm will occur if the proposed Project is not approved, because total future GHG emissions will be either the same or greater if the Project is not approved, than if the Project were approved. To support this argument, the Applicant commissioned CRU Consulting to prepare a Coal Market Substitution Study (**Substitution Study**) which was submitted to the Commission on 5 July 2022.

205 Still, the Proponent's Market Substitution argument falls into the same errors (and possibly more) than those outlined by Preston CJ in *Rocky Hill* and should be plainly rejected by the Commission.

206 **First,** the proponent in Rocky Hill was unable to demonstrate that market substitution was certain, necessarily so, or inevitable. This was particularly so considering nations across the world were "increasingly taking action to reduce greenhouse gas emissions in their countries."[133]

207 Similarly, the Applicant here has placed no cogent evidence before the Commission that it can predict the future of the energy market. Rather, in the view of IEEFA, the Substitution Study relies on findings that are "too simplistic".[134]

208 The Substitution Study contends that despite significantly declining thermal coal demand in the coming decades the high calorific value (**CV**) of the Project's coal will

[131] GHG Submission, [17(b)].
[132] International Energy Agency, 'World Energy Outlook 2021: Technical note on the emissions and temperature implications of COP26 pledges' (November 2021), <https://iea.blob.core.windows.net/assets/aa17bd09-2ad0-4d0a-b5aa-ee418900c4af/Theimpactsofnewemissionspledgesonlongtermtemperatures.pdf> (accessed 19 July 2022).
[133] *Rocky Hill*, [538].
[134] Attachment I, 1.

be favoured in Asian markets over lower grade coal[135] and will therefore displace coal on the market of lower quality, causing carbon leakage.

209 To the contrary, IEEFA submits that the Substitution Study disregards critical factors such as energy security, freight cost and most significantly, coal price, that will see coal importers continue to seek low CV coal in the long term,[136] unsettling the Applicant's theory of displacement. The current energy crisis which has resulted in very high coal prices is now evidence of this trend.[137]

210 The passage of time has also increasingly worn away the fabric of the market substitution assumption as the future for coal on the energy market grows fickler. This is particularly so since the previously unforeseen market squeeze caused by the Russia – Ukraine conflict beginning in 2022. The emergence of new information regarding the energy markets was highlighted by IEEFA as contributing to the uncertainty, and unlikelihood, of substitution.

211 IEEFA's submission to the Commission cited that, as at April 2022, "an extended period of high coal prices will make renewable energy an even more attractive alternative and lead to an acceleration in the long-term decline of coal."[138] IEEFA also noted that "in July 2022, India's power minister R.K Singh stated that the current energy crisis resulting from the invasion of Ukraine will hasten the end of the fossil fuel era."[139]

212 The Commission is not required to make findings on the relative likelihoods of the futures proffered by IEEFA and those by the Applicant, or the infinite possibilities in between. To do so would require a crystal ball. The Commission need only be aware of the profound uncertainty that infects the root of the Applicant's claim to substitution such that their contributions to GHG emissions are effectively erased. Clearly, this is precisely the sort of circumstance in which the precautionary principle is engaged.

213 Strangely, the Proponent appears to rely on uncertainty as an argument in favour of substitution. In particular, in its submissions the Proponent cites advice from the Department of Industry, Science, Energy and Resources (**DISER**) regarding *Environmental Protection Biodiversity and Conservation Act 1999* (Cth)(**EPBC Act**) approvals in support of its market substitution argument in this matter, quoting the following passage:

> It is not possible to identify specific mine sources that would be the alternative sources of coal in the event the projects were not approved. This makes it <u>not possible</u> to conclude that any decision

[135] CRU Consulting, Coal Market Substitution Study (5 July 2022) p 6.
[136] Attachment I page 1-2.
[137] Attachment I page 1.
[138] Attachment I, 5, citing Moody's Investor Services, Coal Mining – Global: High prices drive earnings but would hit affordability and demand if sustained, 11 April 2022.
[139] Attachment I, 5, citing Bloomberg, Energy Crisis is Hastening End of Fossil Fuel Era, India Says, 13 July 2022.

> under the EPBC Act to approve the projects would necessarily increase GHG emissions associated with coal consumption. (our emphasis)[140]

214 If it is impossible, as the Proponent appears to contend, to conclude that approval of this Project would necessarily increase GHG emissions associated with coal consumption, surely it is equally impossible for the Proponent to conclude that GHG emissions would be the same, or less, without the Project. The Proponent cannot use uncertainty sparingly and only for its desired outcome.

215 Consistent with the approach taken by Preston CJ in Rocky Hill, and the precautionary principle, the Commission cannot be satisfied on the evidence before it that substitution of the GHG emissions proposed by this Project is inevitable, and so cannot be certain that the Project will not contribute to catastrophic and irreversible environmental harm.

216 Instead, the Commission must consider that this Project will contribute to global GHG emissions until 2048. This reality is incongruous with a future of only 1.5°C of warming.

217 According to the International Energy Agency (**IEA**) World Energy Outlook Scenarios, referenced by the Proponent in its submissions,[141] the only scenario compatible with holding global warming to 1.5°C by 2100 is "Net Zero Emissions", which shows a sharp drop to nearly zero coal-fired electricity in `advanced' economies by 2030 and a very sharp drop of over 50% for all other economies by that date.[142]

218 It is Professor Sackett's view that the Project is then predicated on global warming exceeding 2°C above pre-industrial temperatures,[143] a result which will have grave consequences for NSW.[144]

219 The Proponent also contends that any quantity of product coal sold domestically "would likely be substituting or augmenting supply from existing coal sources" but offers no evidential basis for this assertion.[145]

220 **The second** key consideration in Rocky Hill was the existence of the logical flaw in the assumption. On this, Preston CJ's reasoning is worth reciting in full:

> If a development will cause an environmental impact that is found to be unacceptable, the environmental impact does not become acceptable because a hypothetical and uncertain alternative development might also cause the same unacceptable environmental impact. The environmental impact remains unacceptable regardless of where it is caused. The potential for a hypothetical but uncertain alternative development to cause the same unacceptable environmental

[140] Applicant Submissions, 28.
[141] Attachment A [357].
[142] Attachment A [357], [358].
[143] Attachment A [360].
[144] Attachment A [360].
[145] EIS Appendix S, p22.

impact is not a reason to approve a definite development that will certainly cause the unacceptable environmental impacts.[146]

221 Not only has the Proponent not offered any persuasive, factual justification that its coal would substitute coal of a lower value all the way out until 2048, as a matter of logic, consistent with Preston CJ's reasoning, such an argument obfuscates the fact that the Project will cause GHG emissions that will contribute to the impacts described at paragraph [144] and [172] above, and those are the likely impacts that concern the Commission.

222 As such, it would be illogical, irrational and unreasonable based on the evidence before the Commission to grant development consent for the Project.

D-III Economic impacts

(i) The Commission's consideration of economic impacts is broader than the CBA and LEA

223 The economic assessment (**EA**) prepared by AnalytEcon for the Applicant for the purposes of the Project's EIS consists of a CBA and a Local Effects Analysis (**LEA**).

224 In summary the proponent has provided the following in relation to its economic assessment of the Project:

- Appendix O to the EIS – Economic Assessment (AnalytEcon, 2021);
- Updated CBA 2021 in respect of revisions to GHG emissions forecasts, updated externality costs of GHG emissions, and alternative methods of attributing the externality costs of GHG emissions to NSW which is said to replace the results presented in the 2021 EA (AnalytEcon); and
- Alternative estimates of the externality of cost of Scope 1 and 2 GHG emissions as requested by DPE.

225 AnalytEcon ultimately concluded that the Project would result in a net-benefit to the NSW community of between $629 million and $856 million depending on factors including carbon price assumptions and apportionment by population.[147]

226 It is useful to consider such figures in the context of financial damage caused by extreme weather events in NSW. The Black Summer bushfires in 2019-2020, referred to in Professor Sackett's expert report, resulted in:

(1) indirect health impacts attributed to smoke exposure include an estimated 417 lives lost and 3,151 hospitalisations. The short-term health costs associated with

[146] *Rocky Hill*, [545].
[147] AnalytEcon, Response to Department of Planning, Industry and Environment's Information Request, p. 6.

this smoke exposure is estimated to be $1.95 billion Australia-wide, with $1.07 billion attributed to NSW losses;

(2) the longer-term premature mortality and economic burden from cumulative effects of smoke exposure will be much higher, by factors estimated to be between two and five;

(3) the Australian food system is estimated to have suffered at least $4-5 billion in economic losses due to the Black Summer fires, with only about a third of this recovered through funding for bushfire recovery;

(4) the most economically damaging bushfire season on record, resulting in at least $1.8 billion in direct economic damages (as measured through insurance losses), and $4.4 billion in fiscal costs over five years to 2023-24 (including $1.1 billion measured through Disaster Recovery Funding Arrangements).

227 As the Commission is aware, a CBA is a useful tool in assessing the public interest of the Project by estimating the net value of the Project to the NSW community.[148] However, a CBA is not a substitute for the intuitive synthesis required of the consent authority in determining the development application.[149]

228 In short: a positive CBA does not indicate that this Project is in the public interest.[150] Rather, the evidence must primarily be filtered and understood through the relevant statutory lenses.

229 For instance, while economic conditions are relevant, the Commission must also be guided by the principle of intergenerational equity.

230 This is not a new concept. Preston CJ has provided useful judgment on this matter in 2013, in Bulga Milbrodale Progress Association Inc. v Minister for Planning and Infrastructure and Warkworth Mining Limited.[151]

231 His Honour stated that the existence of a CBA does not "displace the tasks of the approval authority to weight and balance all of the relevant matters so as to determine whether the preferable decision is to approve or disapprove of the project application,"[152] and that a traditional limitation of a CBA analysis is that often it does not adequately consider or accord sufficient weight to the principle of intergenerational equity.[153]

232 It is also a matter of fact that the CBA did not attempt to quantify other significant costs of the Project, such as costs from Scope 3 emissions, which as seen from the Black

---

[148] *Rocky Hill* [559].
[149] *Rocky Hill* [687].
[150] *Rocky Hill* [565].
[151] [2013] NSWLEC 48 ('***Bulga***').
[152] *Bulga* [452].
[153] *Bulga* [493].

Summer bushfire example, can be in an order of magnitude far greater than the benefit claimed by the Proponent.

233 Both Ms Hutley and Professor Sackett conclude that on a proper analysis that accords with the principles of ESD, the Project delivers a net economic loss. On that basis, the Proponent's key purported benefit is rendered obsolete.

(ii) The CBA assumptions are incongruous with the principle of intergenerational equity

(1) <u>The CBA assumptions are incongruous with the principle of intergenerational equity</u>

234 There is a strong factual basis that the CBA for the Project is not consistent with the principles of ESD, in particular the polluter pays principle and intergenerational equity.

235 Our client presented evidence to the Commission from Ms Nicki Hutley of Rovingstone Advisory, an expert economist undertaking CBA, with a focus on climate economics who is current Councillor for the Climate Council of Australia.

236 Ms Hutley's major observation on the CBA is that there are major flaws in the calculation of the economic costs of the Project's GHG emissions that result in a gross underestimation of the cost of climate impacts.[154]

237 **First,** Scope 3 emissions are (inappropriately) excluded from the analysis.[155] Professor Sackett in her climate change report detailed opinion on the inappropriateness of fragmenting GHG emissions by scope in this context from a scientific perspective.[156] Professor Sackett states that "how signatories to the Paris Agreement have decided to 'account for,' or in other words, 'add up,' global GHG emissions is of no consequence to the amount of damage caused by GHG emissions resulting from any project or activity, which is a matter of science"[157] and "ignoring the effects of Project Scope 3 GHG emissions would be deleterious to the environment of NSW, as <u>every tonne of Scope 3 emissions from this Project has the same effect on the environment of NSW as any tonne of Project Scope 1 or 2 emissions</u>."[158]

238 **Second,** the chosen carbon price likely underestimates the true cost of emissions.[159] This view is strongly supported in Professor Sackett's report, wherein she estimates **the Project's social cost of carbon to be approximately $526 billion globally**, and $604 million if attributed to NSW (although attribution by population is not helpful to the Commission, as discussed below). Professor Sackett notes that these estimates are still

[154] Attachment B p 4 [13].
[155] CBA at Piii, in Hutley Report, 5 [19].
[156] Attachment A p 119.
[157] Attachment A p 119 [353].
[158] Attachment A p 119 [356].
[159] Attachment B 7 [28]-[29].

likely underestimates of the true externalities and yet are more than 500 times larger than the Applicant's own assessments.[160]

239 **Third,** the discount rate of 3% applied to the price for carbon is inconsistent with the majority of expert opinion on measuring climate damage which is crucial to the principle of intergenerational equity.[161] AnalytEcon do not dissect the theory of discounting in this context other than to reference the NSW Guidelines.[162] However, the Commission will be aware of the basic economic theory that underlies discounting, i.e. it accounts for uncertainty as to future profit and people's natural preference for benefits sooner and costs later. The result is that the economic assessment is inherently skewed to favour the current generation at the expense of future generations, while Professor Sackett has informed the Commission that climate change harms felt by the generations alive in 50-100 years will be significantly more severe than those felt currently.[163] The incongruence between the application of any discount rate and the principle of intergenerational equity is stark. In particular:

(1) insofar as the discount rate accounts for uncertainty, it is of no use to costing carbon because the negative effects of GHG emissions are certain. To act on any other basis would be contrary to the precautionary principle; and

(2) insofar as the discount rate is used to reflect human preference for benefits sooner and costs later, the principle applied to costing carbon is discriminatory against young people and future generations.

240 In Ms Hutley's opinion, the Commission should accept that no (or a very low)[164] discount rate should apply to the harms caused by climate change if the principle of intergenerational equity is to be properly applied. At the very least, a 'no discount rate' output is valuable to understand what the monetised scale of impacts to future generations truly is.

241 **Fourth**, pro-rating the cost of carbon to the NSW population (whether in reference to global population or Australia-wide population) relies on a false assumption that GHG emissions and resulting impacts can be contained within borders, ultimately misrepresenting the harm to the NSW population.[165] Ms Hutley's opinion, which should be preferred over AnalytEcon's, is that a more reasonable approach to *understand* the costs associated with increased coal production from the Project is to value the global damages associated with all emissions and then adjust these to reflect

---

[160] Attachment A 12 [34], Section 7.3.
[161] Attachment B 7 [39].
[162] CBA p 54.
[163] Sacket Report, 5.1-5.2.
[164] E.g. Ms Hutley uses a 2.5% discount in her sensitivity test as it "it is the lowest rate currently published by the US EPA until new updates are available that reflect refined thinking on both damages and discount rates." See Attachment B at p 12 [55]. Professor Sackett would recommend no higher than 2%. See Attachment A p 116.
[165] Attachment B p 10 [45]. See also Attachment A, p 199 [356].

the NSW *share* of these costs. An adjustment to the share of the costs does not equate to the harm felt being less.

242 The result is that the CBA is contrary to the ESD principle of intergenerational equity in its treatment of GHG emissions.[166]

243 This is true irrespective of the Applicant complying with NSW Guidelines or Technical Notes. As discussed above, a CBA is not a substitute for the statutory obligations for assessment of the Project.

(iii) A more fulsome assessment of economic impacts predicts a net-negative impact of the Project on the NSW community

244 Ms Hutley undertook a basic sensitivity analysis for inclusion in her report which better promotes intergenerational equity and more accurately represents the true extent of the environmental harm which will result from the Project via its GHG emissions.

245 In it, Ms Hutley included Scope 3 emissions and demonstrated the sensitivity of the costs of carbon of this Project depending on the choice of carbon price per tonne and applied discount rate.

246 She noted that while the LEA includes several benefits which were excluded from the CBA, namely related to labour surplus,[167] they should be disregarded as they do not adhere to NSW guidelines or, more importantly, good economic practice.[168] The Commission should readily accept that view.

247 The results of Ms Hutley's sensitivity testing shows a greatly reduced benefit to the community than that advertised by the Applicant, and on a significant number of the various carbon price assumptions, the net-benefit of the Project would be well below zero.[169]

---

[166] This comment was made by Ms Hutley in her Report, Attachment B p 2 [9], [40].
[167] CBA p. 27.
[168] Hutley Report, 2 [8].
[169] Hutley Report, 11, Table 1.

Table 1 Cost of Mount Pleasant GHG emissions (Including Scope 3) under differing carbon price assumptions and impact on Net Project NPV (A$ million)

SCC	NPV GHGs (NSW share)	AE Net Project Benefit/(cost)	MEG Net Project Benefit/(Cost)
US EPA GSCC (3%) – AnalytEcon est.	345	511	407
US EPA GSCC (2.5%)	503	353	249
US EPA GSCC 95th percentile (3%)	1066	-210	-314
German SCC (1%)	1382	-526	-630
German SCC (0%)	4473	-3617	-3721

Source: DPIE (Scope 1,2 and 3 emissions) and Author's calculations based on US EPA and German Environmental Agency estimates.

248 Ms Hutley summarises:

> It is clear from the results in the table below [here, above] that AnalytEcon's cost assumptions have been significantly underestimated. The Project stacks up only under conservative SCC assumptions that significantly understate the intergenerational impacts and equity.[170]

249 Professor Sackett also conducts an analysis of climate change costs from a scientific perspective in her report.[171] Professor Sackett uses a 2018 survey of all scientific literature on social cost of carbon at that time to come to a median price of $417 USD/t$CO_2$.

250 Her results are as follows:[172]

Table 8: Estimates of Social Cost of Carbon associated with the Project over its proposed Lifetime

All values in 2022 MAUD	Scopes 1 + 2	Scope 3	All Scopes
Global Median	9,630	516,000	**526,000**
Global Range	4,100 – 18,600	219,000 – 996,000	223,000 – 1,010,000
NSW Median	11.1	593	**604**
NSW Range	4.71 – 21.4	252 – 1,140	257 – 1,170

Table 8 Notes: Costs are calculated following values given in paragraphs 326) and 327). Values are given to three significant figures in millions of AUD (MAUD).

251 On any reasonable analysis consistent with the principles of ESD, especially intergenerational equity, the only available conclusion open to the Commission is to conclude that the Project would deliver a net economic loss to the State of NSW. On

[170] Attachment B p 11 [53].
[171] Attachment A p 113.
[172] Attachment A p 114.

the economic evidence before the Commission, it would be unreasonable for it to grant development consent for the Project.

D-IV Biodiversity impacts

252 Dr Stephen Phillips gave independent evidence to the Commission in respect of the Project's likely impact on Biodiversity. Dr Stephen Phillips notes that the Proponent's biodiversity assessment is built around an offset equation: the surrendering of land with approvals for development (i.e. Relinquished Area) for undeveloped land outside existing approvals required for the coal-mine extension (i.e. Extension Area). Dr Phillips asserts that the means used in the Project documentation to assess biodiversity conservation via the Biodiversity Assessment Method (**BAM**) approach is flawed, because it fails to account for even basic tenets of population / community ecology. The result of its application is a net loss of biodiversity at the local population / community level, with losses offset by retirement of credits and/or contributions to a Biodiversity Conservation Fund.

253 In the Proponent's assessment of threatened entities – two relic TECs are identified:

- Central Hunter Grey Box – Ironbark Woodland; and
- Box-Gum Woodland.

254 The former is listed as endangered and the latter as critically endangered. Dr Phillips does not support the subsequent Serious and Irreversible Impact (**SAII**)-themed assessment, which by the choice of sequentially broader distribution scales (typically 1000 ha, 10,000 ha and bioregion) reduces the potential loss of each TEC until it appears mathematically trivial. For example, the critically endangered Box-Gum Woodland when cleared is estimated to be 34% when considered at the scale of the surrounding 1000 ha, 8% when considered in the context of the surrounding 10,000 ha, and 3.4–3.5% when assessed at bioregional scale. Planning decisions that approve reductions of extent based on larger scales are pushing SAII-qualifying TECs closer to the localised extinction end of the conservation spectrum.

255 In Dr Phillips' opinion, no further clearing of SAII-qualifying entities, such as the Box-Gum Woodland, that are already listed as critically endangered should be permitted, regardless of the spatial scale at which the assessments are being considered.

256 Dr Phillips also finds that it is not possible to make a direct comparison and/or compare vegetation integrity between the Relinquishment and Extension Areas because of the biased nature of site selection enabled by the BAM. Even if this is overlooked, he evaluates from the available data in the Project documentation that the relative proportions of Derived Native Grassland (both forms) do not differ significantly between the Relinquishment and Extension Areas, in contrast to the Proponent's summation, and it is also apparent from the integrity plot data that it is the Extension Area that contains the greater diversity of Plant Community Types (n = 6) when compared to the Relinquishment Area (n = 4).

257 The Proponents' use of BAM categorises two threatened fauna species as *species-credit* species (with the stricter demand of a formal field survey, compared with *ecosystem-credit* species) within the assessment area: striped legless lizard and squirrel glider. Dr Phillips observes that survey work for both species was *ad hoc* rather than systematic.

258 Dr Phillips states that poor scientific practice is applied to assessment of surveying for the striped legless lizard. Despite only one specimen of striped legless lizard being opportunistically detected during field surveys, towards the northern boundary of the largest space of the proposed Extension Area, a species-credit polygon of >400 ha has been proposed, the extent of which is then used to imply negligible impact on the species within the assessment area. This claim is entirely based on an assumption that the species is distributed homogenously (i.e., 100% occupancy) in areas identified as the species-credit polygon when absolutely no data has been provided to support such a conclusion, and is compounded by there not even being historical records of striped legless lizard in the Relinquishment Area.

259 Dr Phillips argues that approval of the proposal in its current form will result in the loss of the only known population of this species that occurs within the assessment area, because the other known population to the east of Muswellbrook must be considered separate since it is across the barrier of the Hunter River.

260 The Project documentation implies, in Dr Phillips' view, that one or two local subpopulations of squirrel glider have historically been present within the assessment area, part of which is already likely to have been lost to mining activity; while the remainder are located in the Extension Area.

261 The scale of impact on the remaining squirrel gliders from the Project is not possible to predict because of omissions in the Project documentation (no information regarding the extent of habitat being occupied by the squirrel glider population, the size of the population on-site and/or its capacity to absorb impact / maintain longer-term viability). Furthermore, there is no data to indicate the presence of another local sub-population of squirrel gliders in the Relinquishment Area, despite the Department claims to the contrary.

262 Dr Phillips disagrees with the conclusion from the Proponent's assessment that:

> … the Project would not result in a change to the nature or intensity of impacts on biodiversity values associated with the (already) approved Mount Pleasant Operation, as areas are already approved to be cleared and all additional clearance is assessed in this BDAR.[173]

263 For example, the BDAR implies two species of threatened forest owl within the assessment area —the Powerful Owl and the Barking Owl—both of which are known predators of arboreal mammals, such as squirrel glider. Their continued presence is

[173] Proponent's Biodiversity Assessment Report.

contingent on maintenance of populations of their prey; and it can be argued, therefore, that a critical cumulative impact has not been considered by the BDAR.

264 In summarising, Dr Phillips is "not satisfied that the assessment of potential environmental impacts has been adequate to objectively inform the assessment process, neither has the potential for cumulative impacts been adequately assessed because of the ecological disconnect effected by the partitioning of threatened species into *ecosystem* and *species credit species* respectively".

265 The Commission should accept the above findings of Dr Phillips which further support the Project's refusal.

D-V <u>Water resource impacts</u>

266 Dr Steven Pells gave independent evidence to the Commission in respect of the Project's likely impact on water resources. In Dr Pells opinion, the Project will remove both groundwater and its source aquifer in the regions of open-pit mining. Ongoing seepage into the mining pit will cause depressurization of adjacent groundwater resources including loss of baseflow from regional streams. Mine waste is to be stored in a tailings storage facility of appreciable size, which in Dr Pell's view is associated with a high risk of failure, which is a risk to human safety and the environment.

267 The mine closure plan proposes leaving the mine void open, which over time will create a 'pit lake' from filling with groundwater and surface water inflows until a balance with evaporation is reached. As evaporation is the only 'outflow' the pit lake will become more and more concentrated into the future with salts and other chemical constituents. Hence the closure design is to create a pit lake that becomes an increasingly toxic water body over time without limit or remediation plan, and which is a perennial drain on baseflow in regional rivers.

268 The EIS numerical groundwater model potentially underestimates impacts to "highly productive groundwater" resources associated with the alluvium. This underestimation arises due to the manner in which the numerical groundwater model layering is conceptualised, and the adoption of very low values for hydraulic conductivity in the model. Such values are not supported by reasoning or test. There also appears to be systematic error in the interpretation of field testing (packer testing) that is relied upon in the EIS, and which results in values of hydraulic conductivity that Dr Pells' considers unreasonable.

269 The assessment of the water quality in the pit lake only considers salinity. Concentration of other constituents should also be considered along with the risks such concentrations provide to local flora and fauna.

270 Dr Pells' questioned whether creating a pit lake that becomes increasingly toxic *ad infinitum* is an acceptable legacy to pass on to future generations. The EIS mentions possible 'options' for future usage and / or management of the water. A tenable plan

for the future should incorporate a proper feasibility study of such 'options', including impacts, costing and sustainability.

271 There is very little information given about the design, specification and management of the tailings storage facility. The facility proposed in the EIS is large and, based on the details in the EIS, can be characterized as having a high risk of failure.

272 Assessment of cumulative impacts dismisses two nearby mining operations on the basis of tenuous assumptions about groundwater movement, which Dr Pells considers to be inappropriate.

273 Impacts to water resources are considered relative to existing approved mines rather than baseline conditions. This logic offers no environmental protections.

274 The Commission should accept the evidence of Dr Pells, which supports a finding that the Project should be refused.

D-VI <u>Air quality impacts</u>

275 Dr Silva gave independent evidence to the Commission in respect of the Project's likely impact on air quality. In Dr Silva's opinion, the expansion of activities at Mt. Pleasant would inevitably result in degraded air quality at Muswellbrook and other nearby population centres, and more broadly across the Hunter. Most concerning is the predicted increase in fine particulate pollution (PM2.5).

276 Muswellbrook already experiences significant exceedances of national standards for PM2.5, both on yearly and daily measures. The yearly measure has been exceeded at Muswellbrook in every year for which data is available (2011 – 2020).

277 An additional significant PM2.5 pollution source will push annual exceedances to higher levels and make it less likely that Muswellbrook can meet annual PM2.5 air quality requirements.

278 National and international standards for exposure to PM2.5 have been tightening and are expected to continue to do so, as we learn more about the harmful effects of PM2.5. Exposure to PM2.5 at the levels presently seen in the Upper Hunter would be causing increased mortality and negative health impacts.

279 The EIS and Air Quality Impact Assessment do not describe mitigation or avoidance strategies to help meet the annual PM2.5 standard. Mitigation measures described to help meet daily PM10 and PM2.5 standards will not help with meeting annual targets.

280 Air quality modelling described in the Air Quality Assessment cannot quantify known levels of PM2.5 at Muswellbrook, and should, therefore, not be used to make quantitative predictions about future PM2.5 exceedances.

281 In Dr Silva's opinion, to protect air quality and to help enforce national environmental standards, the Mount Pleasant mine should not be allowed to expand.

282 The Commission should accept that opinion, and on that basis alone the Project should be refused. The potential for this Project to contribute to increased mortality and negative health impacts for a community already affected by poor air quality means that there is no reasonable, rational or logical decision left open to the Commission other than refusal.

D-VII Visual amenity

283 Mr David Moir gave independent evidence to the Commission in respect of the Project's likely impact on visual amenity. Mr Moir notes the:

> …increasing visual presence and dominance of mining operations in the Hunter Valley, particularly in the areas surrounding Muswellbrook and Singleton and most noticeably when viewed from the main transport corridors of the New England Highway and the Golden Highway.

284 It Mr Moir's view the continuing degradation of the landscape character of the region as a result of the mining operations, the engineered and unnatural approach to the placement of overburden and the consistent failure of remediation projects rarely, if ever, deliver on the promises of reinstatement of the diverse woodlands and grasslands habitats lost.

285 He observes that coal-mine remediation results in unnaturally uniform landscapes that lack resilience (e.g. susceptibility to drought) and cannot replicate the environmental complexity that supports the ecological communities of the Hunter Valley. In his lengthy experience, these shortcomings are being exacerbated more and more by climate change and more frequent extreme events, such that there is a significant risk of continual failure of rehabilitation projects.

286 In reviewing the Proponent's VLIA, Mr Moir notes that it acknowledges the consistently high impact of the Project in the central sector (i.e. in the vicinity of North Muswellbrook and South Aberdeen) during the operational phase, but omits the impact in perpetuity on the horizon line with the finished level of the waste rock emplacement well exceeding the height of the existing landform. The subsequent VLIA summation of "low" long term impacts of the proposal are based on the successful revegetation of the waste rock emplacements. In Mr Moir's opinion the positive effect of the rehabilitation is significantly overstated.

287 Complete remediation of the site to mimic or resemble its appearance prior to mining will not be possible, in Mr Moir's view, because of the loss of the profile of the ridges and gullies, changes in subsoil and topsoil depths, and along with compacted substrates and changed site hydrology. All of the preceding, coupled with a narrow timeframe for revegetation, will contribute to a plant community that lacks diversity (age, size and species) and is inconsistent with the vegetation patterns and communities of the adjoining land that has not been disturbed by mining.

288 Mr Moir considers that DPE has failed to fully consider the ramifications of the Project, in particular the VLIA's extent of "high" visual impact in the NSW DOP State Significant Development Assessment Report, given that impacts are greater than the extent of impacts for the currently approved mine. The Department has also neglected to provide any timeframe or performance specification on the remediation and rehabilitation of the landscape.

289 The Project is one of several large-scale coal mining operations in the region that are having an increasingly degrading influence on the landscape character of the Hunter Valley. In Mr Moir's opinion, the long-term plans for rehabilitation of the mining sites are consistently optimistic and at genuine risk of partial or total failure.

290 The Commission should accept the evidence of Mr Moir and find that the Project will have a high visual effect.

291 In *Rocky Hill*, Preston CJ found:

> The visual impacts of the Project, both by themselves and by reason of the consequential adverse effects on existing, approved and likely future uses of land in the vicinity, and the social impacts that the visual impacts will likely cause, justify refusal of consent for the Project.[174]

292 The Commission should find that the Project's impact on visual amenity is not insignificant as the Proponent seems to suggest. Rather based on the evidence before it the likely visual impacts of the Project are significant enough and the social impacts it will likely cause require development consent to be refused.

D-VIII <u>Social impacts</u>

293 Dr Askland gave independent evidence to the Commission in respect of the Project's likely social impacts. Dr Hedda Askland contends that **the social impacts of the proposed Project are significant and that the proposed mitigation strategies are ineffective**. A key issue is the proximity between the proposed mine and private residents and the township of Muswellbrook and Aberdeen, and the impact that the mine will have on people's health and wellbeing, culture sense of place and community. Dr Askland raised significant concern about the social impacts related to amenity (noise and dust) and visual impacts, the depopulation of neighbourhoods and rural villages, impacts on landscape as heritage, and distributional equity.

294 The Project will have significant adverse impacts on the visual amenity and rural quality of Muswellbrook and the surrounding villages. Whilst the community already endures significant negative social impacts of current coal mining operations (including the approved Mount Pleasant mine), the extended life of the project from 2026 to 2048, and the doubling of ROM coal extraction from 10.5 million tonnes per annum (mtpa) up to

[174] *Rocky Hill* [222].

21 mtpa, will present long-term adverse impacts on community and particular demographic groups in the area, and significant impacts on competing uses in of the land of the mine, including agriculture.

295 The construction and operation of the Project, as well as transportation and combustion of the coal from the mine, will result in significant air pollution that can compromise human health and result in emissions of greenhouse gases, which contribute to climate change. In the context of climate change, localised risks of climate change hazards, such as drought and bush fires, are increasing. These hazards will exceed the experience of adverse social impacts from the mine, particularly dust and air pollution.

296 The SIA conducted for the Project confirms that the local community are already enduring significant negative impacts from the current Mount Pleasant operation. These adverse impacts will continue, and potentially be exceeded, if the Project is approved, with likely further displacement of the smaller rural communities surrounding the mines, decrease in social cohesion, and tensions within and potential rupture of the local community. Opportunities to move forward on a pathway towards a post-mining future and build a just transition will be delayed and potentially lost.

297 The mitigation strategies that have been put forward to deal with the adverse impacts are inadequate. The failures of these strategies to redress the harm done to local residents and community are evidenced by the social baseline, which offers an evaluation of the social impacts of the current operation at Mount Pleasant. Whilst the mitigation strategies that address economic impact as it relates to employment, training and community contribution (including the Voluntary Planning Agreement (**VPA**) and Aboriginal Community Development Fund (**ACDF**)) may go some way in addressing some of the impacts, the mitigation strategies proposed for impact that relates to place-based variables are insufficient. The proposal to reduce impacts through the scaffolded construction and 'natural' rehabilitation design are contentious and the SIA indicates a significant lack of trust to in the mine's final mine design and environmental mitigation. Rather than mitigating impacts, some of these strategies, including the proposed Eastern Out of Pit Emplacement, may themselves be an intrusion and do not offer a solution that incorporates people's lived experience and connection to Muswellbrook and the Upper Hunter as a place.

298 The Project presents a moral concern regarding the weighting of social, economic and environmental impacts, which require valuation of social, economic and environmental costs and benefits as they manifest within different locations. There is a distinct inequity embedded in the development, which exposes some parts of the population (landholders in the rural villages next to the mine, women, Aboriginal people and people in low-income household) to distinct impacts, which is not adequately accounted for.

299 This inequity is mentioned in the SIA but undermined through the layers of reporting of social impacts in the overall EIS, resulting in a muting of adverse impacts. Although the SIA recognises the interconnected nature of social, environmental and health

impacts, and presents a comprehensive analysis of the connections between social impacts, environmental impacts (including noise, dust and lighting), landscape change and heritage, the overarching EIS treats social impacts as separate to the environmental impacts of the Project and the changes that the mine will present, both short and long term, to the landscape. The details in the SIA about the social impacts and the significant risks that are identified, particularly in relation to place attachment, livelihood, community and wellbeing, are undermined in the general presentation and summaries of social impacts in both the SIA and the broader EIS.

300 The muting of social impacts and the interconnected nature of environmental and social impacts carry across to the Department's Assessment Report. The Department has failed to appropriately assess the SIA conducted by the Proponent. Despite the significant social impacts that the Project will have, the Department places social impacts within the category of 'other' and dismisses the severe adverse impacts that the Project will have. The Department places the Proponent's economic considerations higher than the social, environmental and economic considerations of the community.

301 The failures of the Department to adequately recognise the social impacts of the Project has resulted in a severe omission in the draft Development Consent, and there is no requirement for a Social Impact Management Plan (**SIMP**). Considering the severity of the impacts projected, a SIMP must be built into the Development Consent should the Project be approved. Furthermore, due to the high likelihood for future displacement of local community due to acquisition of rural properties in the small villages surrounding the mine and ongoing adverse impacts, legacy acquisition/mitigation rights should carry over to the Project.

302 The Commission should accept the evidence of Dr Askland which further supports a finding that development consent for the Project should be refused.

D-IX <u>Workforce transition issues</u>

303 Dr Phelan gave independent evidence to the Commission in respect of the Project's likely on workforce transition issues. While the proponent suggests that one of the main benefits of this Project is the continued availability of jobs for their staff at Mt Pleasant Coal Mine, which in turn support the wider Hunter Valley economy.

304 Dr Phelan considers that despite the Proponent's claims, there is no real prospect of the Project offering continued employment opportunities into the long term, because the national and international policy context within which it operates is changing at an accelerating rate.

305 In Dr Phelan's opinion the Hunter Valley region is already engaging in the process to transition away from coal, and that approval of this extended operations would undermine the work currently underway.

306 The NSW government has announced a package to create 3700 new jobs in the clean energy sector in the wake of the closure announcement for the coal fired Eraring Power Station in Lake Macquarie, along with a $250m investment over 5 years to create a further 500 jobs in local manufacturing for components for the renewable energy sector, with a further $300m spend over 10 years to create 500 more jobs through expansion of the states clean manufacturing base.

307 Dr Phelan provides:

> The concept of just transition is helpful in planning and executing a shift away from coal mining (Evans and Phelan, 2016). A just transition is one where workers and communities that have been strongly dependent on fossil fuel exploitation aren't left behind through the transition of a workforce from the coal industry to alternative employment offering good jobs and dignity of work.

308 In addition to the above additional employment creation initiatives, the NSW government has also recognized the need for a just transition away from coal through their announcement of $25 million a year for its "Royalties for Rejuvenation Fund" which is intended to "ensure coal mining communities have the support they need to develop other industries in the long-term".

309 Dr Phelan provides insight into the Hunter communities views with regards to continuation of coal mining and the need for proper planning of the change that is coming. He provides that the Hunter communities have identified 3 key priorities for a just transition:

(1) the need for a local coordinating authority

(2) funding for a "flagship" job-creation project, and

(3) more resources for technical and vocational education.

310 In Dr Phelan's view the approval of the Mount Pleasant proposal will serve to undermine the Hunter's transition away from fossil fuels.

311 Furthermore, in proposing an expansion of a coal mine, the Project's evaluation of employment ignores the responsibility of coal mined in the Hunter region on climate change and negative job prospects elsewhere in Australia. It will contribute to disruption of climate-affected jobs (e.g. tourism to the Great Barrier Reef, agriculture in marginal areas), loss of productivity through increasing number of extreme-heat days, and the future financial cost of climate change for today's youth (as accepted in *Sharma v Minister for the Environment* [2021] FCA 560).[175]

312 In Dr Phelan's expert opinion, the:

[175] The facts in *Sharma* were not overturned on appeal.

> …partial, conservative calculations found today's children will forego between A$125,000 and A$245,000 each due to the climate impacts noted above, with the most likely cost at around A$170,000 for each child. However, the Project's assessment makes no mention of the wider loss of earnings to which the Project will contribute.

313 In overlooking responsibility for a just and orderly workforce transition, the Proponent is also ignoring the express wish of communities in the Hunter region to look to the future with recorded priorities for a local coordinating authority for transition, a flagship job creation project, and vocational (re)training.[176]

314 The Commission should accept the evidence of Dr Phelan which provides further support of the Project's refusal.

E. PUBLIC INTEREST

E-I Response to the Proponent's arguments

315 The Proponent concludes that, on balance, the Project is in the public interest of the State of NSW;[177] however, it has failed to account for the Project's contributions to worsening the impacts of climate change and many of the purported benefits are overstated.

316 The Proponent accepts that as part of the public interest, the Commission can consider GHG emissions of the Project including Scope 3 emissions insofar as that contribution is likely to impact NSW.[178] This is consistent with the evidence provided by Professor Sackett and Nicki Hutley as outlined above at [4.2.1] and [4.3].

317 It is difficult to conceive of a public interest greater than maintaining the ecological processes on which life depends, or of a matter threatening our ability to do so more than anthropogenic GHG emissions, or of a decision more consequential than to approve an extension to a coal mine, unlocking carbon for emission out to 2048. The Commission is weighing up the likelihood that this Project will contribute to worsening the impacts of climate change, against speculative economic benefit.

318 The Proponent's assertion that "the Project's contribution to global climate change effects would be proportional to its contribution to global greenhouse gas emissions" is simplistic and does not account for the complexity of factors which affect possible future scenarios, or the existence of tipping points.

319 As addressed above, the Proponent cannot state with any level of certainty that "[i]f the Project does not proceed, global demand for coal could be satisfied by other sources and, therefore, there would not be a corresponding reduction in global greenhouse gas

---

[176] Future-proofing the Hunter: Voices from our community' A REPORT PREPARED BY HUNTER RENEWAL & HUNTER JOBS ALLIANCE, 2021

[177] EIS 8-29.

[178] Ashurst Submission [27].

emissions in the atmosphere"[179] without this Project. The argument lacks the factual and logical basis to be sustained, and should be dismissed, especially when taking into account the precautionary principle.

320 And finally, the Proponent cannot rely on the existed of NDCs for Australia or any potential export country to suggest that the impacts arising from its actions will be mitigated because there is no evidence as to proposed export countries, there is no evidence that countries are complying with their NDCs, and there is firm evidence that even if all countries met their NDCs this would not achieve the goal of limiting warming to 1.5^{o}C.

321 As stated above at [181], the Proponent contends that "climate change and GHG emissions are not the only considerations that inform the public interest and, certainly, are not the sole mandatory or permissible considerations."[180] Nor is the Commission's "approach to considering and weighing up the relevant factors" "prescribed dictated or restricted" by the decision in *Rocky Hill* which it says is not legal precedent the Commission is obliged to follow.[181]

322 It is undoubtedly correct that climate change impacts and GHG emissions are not the *sole* mandatory or permissible consideration. It does not, however, follow that the IPC could not choose to give the adverse climate change impacts of the Project a weight which results in consent being refused. There would be no error in the IPC refusing consent because it considered that the Project was contrary to the public interest (because of its climate change impacts), or because the climate change impacts of the Project were unacceptable.

323 In relation to climate change and GHG emissions, the Proponent says that it has addressed social equity by considering the potential social and economic costs of climate change and implementing management measures in relation to the potential impact of GHG emissions. However, as acknowledged, the vast majority of the Project's contributions to GHG emissions, its Scope 3 emissions, are unmitigated. The Proponent appears instead to be concerned with the impacts of climate change on the Project, rather than vice versa.

324 The Proponent can rely only on purported economic and social benefits to justify its contributions to a genuinely existential threat. Adopting a social cost of carbon attempts to account for the adverse impacts of projects that result in GHG emissions; however, in Ms Hutley's opinion, the Proponent's treatment of the social cost of carbon is not consistent with the principle of intergenerational-equity.

325 As set out above at D-III Economic impacts, Ms Hutley's assessment shows that taking account for the real damage that the GHG emissions of this mine will cause, the Project would have a net-negative impact on the NSW community. This is so even though Ms

[179] EIS Appendix S, p24.
[180] Ashurst Submission [27].
[181] Ashurst Submission [28].

Hutley's assessment is still likely an underestimate of the social cost of carbon in the view of climate science expert, Professor Sackett.

326 In respect of social impacts, Professor Sackett's opines the climate change externalities of the Project will be borne disproportionately by younger and future generations, with no clear recourse or path to remediation.[182] Taken together with the evidence set out in her Report of the enormous risks posed by global warming surpassing 2°C, including irreversible consequences, and the contribution of the Mt Pleasant Optimisation Project in increasing that likelihood, of any benefits from the Project are far outweighed by costs borne by the majority of NSW inhabitants, particularly its youngest.[183]

327 Our client submits that taking into account all of the impacts and relevant factors, it would be irrational, illogical and unreasonable to conclude that the Project is in the public interest. As such, only a finding of refusal is possible on the facts before the Commission.

E-II <u>Findings the Commission should make</u>

328 It is submitted that, in addition to the findings referred to above, the Commission should also make the following findings.

(i) Findings in respect of the objects of the EP&A Act

329 Our client submits that the Project, if approved, would not achieve *any* of the objects of the Act.

330 The Project does *not* 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.

331 None of the evidence before the Commission demonstrates that the Project, if approved, would "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." The Project proposes to increase usage of coal at a time when it is projected that the world will be in the final stages of phasing out the use of this resource.

332 The world is on the pathway to decarbonisation, and the science is clear – the carbon budget simply cannot make room for the emissions estimated to be generated by the Project in the years that it is intended to cause continued greenhouse gas emissions (ie from 2031, and beyond 2050).

333 Contributing to the climate crisis by approving further emissions arising from the Project during that timeframe does **not** promote the social and economic welfare of the

[182] Attachment A [343].
[183] Attachment A [36].

community, which depends on a safe climate for its very existence. It certainly does **not** promote a **better** environment, to permit further greenhouse gas emissions in 2031, and beyond 2050, that will arise from this Project, when we know that catastrophic climate impacts are already being felt today.

334 The 2019/2020 Australian bushfire crisis, and all of its consequential environmental impacts, is one example of how more emissions do not, and cannot, ever promote a better environment. As Professor Sackett reflects, the effects of extreme weather events will compound, with the 2022 floods having "devastating effects across large portions of the State, some of which are still recovering from Black Summer fires."[184]

335 Finally, there is no reasonable basis on which the Commission could find that approval of the Project constitutes "the proper management, development and conservation of the State's natural and other resources," when all the evidence points to the cold hard fact that coal is being phased out of production already, and that in order to limit global temperature rise to 1.5 degrees Celsius, there is no room for extensions of existing mines. The only rational pathway towards a safer climate is the rapid phasing out of coal mines, not further extensions post-2030, as the Project proposes.

336 The Commission must find that the Project does not achieve the object at s1.3(a) of the EP&A Act.

337 The Project does *not* facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.

338 None of the evidence before the Commission demonstrates that approval of the Project would "facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment." The principles of ESD, and the failure of the Project to facilitate those principles, are addressed in further detail elsewhere in this submission.

339 The Commission must find that the Project does not achieve the object at s1.3(b) of the EP&A Act.

340 The Project does *not* promote the orderly and economic use and development of land.

341 None of the evidence before the Commission demonstrates that approval of the Project would "promote the orderly and economic use and development of land". At a time when the world is transitioning away from fossil fuel use towards renewable energy sources, approval of this Project would allow the mine to delay closure of its site until at least 2048. There is no evidence that there will be a demand for coal produced by the Project between 2026 and 2048.

[184] Attachment A, [21].

342 However, the Commission is well aware of the fact that during that timeframe, coal usage must be rapidly phased out (not increase) in order to meet global climate targets and to limit global temperature rise to 1.5 degrees Celsius. It is up to the Commission to exercise its powers in a way that promotes the orderly and economic use and development of the land in the Upper Hunter. The only rational response to the Project in all the circumstances is to refuse it.

343 The Commission must find that the Project does not achieve the object at s1.3(c) of the EP&A Act.

344 The Project does *not* promote the delivery and maintenance of affordable housing.

345 None of the evidence before the Commission supports the proposition that the Project promotes the delivery and maintenance of affordable housing. In fact, the evidence demonstrates that as the climate crisis worsens (as a result of emissions generated by the Project acting cumulatively with all other greenhouse gas emissions), housing will become less affordable and climate risks limit the ability of homeowners and landlords to obtain insurance to rebuild following a climate event (such as extreme bushfires, storm surges, coastal erosion, sea level rise, and flooding).

346 The Commission must find that the Project does not achieve the object at s1.3(d) of the EP&A Act.

347 The Project does *not* protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.

348 There is no evidence before the Commission that the Project protects "the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats." In fact, there is ample evidence that it does the opposite. In this regard we refer the Commission to section 4.7 of these submissions above.

349 The Commission must find that the Project does not achieve the object at s1.3(e) of the EP&A Act.

350 The Project does *not* promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).

351 There is no evidence before the Commission that approval of the Project would "promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)."

352 The Commission must find that the Project does not achieve the object at s1.3(f) of the EP&A Act.

353 The Project does *not* promote good design and amenity of the built environment.

354 There is no evidence before the Commission that the Project, if approved, would "promote good design and amenity of the built environment." To the contrary, the evidence indicates that the Project would delay closure and rehabilitation of the site until 2048, thus prohibiting other development that would promote good design and amenity of the build environment, including surrounding residential areas. Coal mines do not generally promote good design and amenity of the built environment. Rather, they are a blight on the landscape, they are noisy, they are dusty and they generate heavy traffic that is not conducive to enjoyment of the rural built environment.

355 The Commission must find that the Project does not achieve the object at s1.3(g) of the EP&A Act.

356 The Project does *not* promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.

357 There is no evidence before the Commission that the Project will "promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants." It is well established that emissions that contribute to climate change exacerbate the effects of global heating, including the health and safety impacts of climate change on residents across NSW. For example, it is very well established that climate change is causing an increase in the number of hot days in NSW, and the incidence of heatwaves, which will worsen as more emissions are added to the atmosphere. As a result of rising emissions, buildings will become more difficult to insure, and maintain, and become less suitable for protecting the health and safety of their occupants (for example, because of lack of internal cooling such as air conditioning).

358 The Commission must find that the Project does not achieve the object at s1.3(h) of the EP&A Act.

359 The Project does *not* promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.

360 This object is of minimal relevance to the Commission's determination of the Project application. In any event, there is no evidence before the Commission that approval of the Project promotes the sharing of responsibility of environmental planning and assessment between the different levels of government in NSW. To the contrary, the evidence indicates that the Project, by dint of its contribution to global emissions at a time when nothing less than urgent and deep emissions reductions are required, will make environmental planning more difficult, as all levels of government experience unprecedented and unplanned for climate events, such as catastrophic bushfires, floods and extreme weather events.

361 The Commission must find that the Project does not achieve the object at s1.3(i) of the EP&A Act.

362 The Project does *not* provide increased opportunity for community participation in environmental planning and assessment.

363 This object is of minimal relevance to the determination of the Project by the Commission, as the opportunities for community participation are provided by the Act itself, rather than individual projects. In any event, approval of the Project does not achieve the object at s1.3(j) of the EP&A Act.

(ii) Findings in respect of climate change and likely impacts on the environment

364 The Commission should make each of the findings set out in paragraphs 172 and 176 above, based on the admissions of the EPA in *Bushfire Survivors* and the findings of the Land and Environment Court in *Gloucester Resources*.

365 The Commission should make findings in accordance with the evidence of Distinguished Professor Penny Sackett (**Attachment A**).

366 The proponent accepts that the Project would contribute to NSW and Australian GHG emissions: EIS at ES5.4. The Commission should find to that effect.

367 The Proponent's evidence indicates that emissions from the Project including the decommissioning phase (2023 – 2053) will be at least 876.47Mt CO2-e including:

(1) 14.15 Mt CO2-e of Scope 1 emissions;

(2) 2.17 Mt CO2-e in Scope 2 emissions; and

(3) 860.16 Mt CO2-e in Scope 3 emissions.[185]

368 The Commission should find that these figures comprise the minimum likely emissions from the Project.

369 The Proponent accepts that anthropogenic climate change is listed as a key threatening process under the *Biodiversity Conservation Act 2016* (NSW): EIS at Appendix S [5.4]. There should be a finding to that effect.

370 The Proponent accepts that loss of climatic habitat caused by anthropogenic emissions of greenhouse gases is listed as a key threatening process under the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth): EIS at 5.4. There should be a finding to that effect.

371 The Commission should find that the total greenhouse emissions of the Project are significant, because any volume of GHG emissions is significant but particularly the volume of carbon proposed to be unlocked from its safe storage in the ground and released into the atmosphere as a consequence of this Project.

[185] Attachment A [115].

372 The Commission should find that the Project will contribute to total anthropogenic greenhouse gas emissions and will thereby contribute to climate change.

373 The Commission should find that climate change is causing, and will cause, significant, irreversible harm to the environment.

374 The Commission should find that the proponent has not identified any measures to minimise the Scope 3 emissions of the Project.

375 The Commission should find that the proponent has not identified any measures to minimise the GHG emissions, including the Scope 3 emissions, of the Project to the greatest extent practicable.

376 The Commission should find that the absence of measures to minimise greenhouse emissions means that it is unable to discharge the function given to it by clause 14(1) of the Mining SEPP.

(iii) Findings in respect of coal market and economic impacts

377 The Commission should make findings in accordance with the evidence of Nicki Hutley (**Attachment B**) and the evidence of IEEFA (**Attachment I**).

378 The Commission should find that the CBA for the Project does not adequately address ESD principles, especially as to intergenerational equity and the polluter pays principle.

379 The Commission should find the proponent has failed to establish that the Project will deliver an economic benefit to NSW.

380 The Commission should find that, acting consistent with principles of ESD, the Project will deliver an economic net loss to NSW because of its contributions to the accretion of GHG emissions in the atmosphere, and is therefore not economically efficient.

(iv) Findings in respect of social impacts

381 The Commission should make findings in accordance with the evidence of Dr Hedda Askland (**Attachment C**).

382 The Commission should find that the effects of anthropogenic climate change are expected to include serious public health impacts (e.g. infections and morbidities), rising death rates, mass population movements, loss of livelihoods, eroding shorelines, extreme weather conditions (including flooding and drought), poverty, social distress and civil violence.

383 The Commission should find that social impacts from climate change are already being felt.

384 The Commission should find that climate change will impact hardest on the most disadvantaged in the community, including by way of impacts to health and wellbeing, and young people today will experience significant social impacts as a consequence of climate change in the future.

385 The Commission should find that the Project will negatively impact on aspects of Aboriginal cultural heritage both in terms of impacts on sites of scientific value and through the impacts of climate change on culture and on Country.

386 The Commission should find that there will be no new social benefits arising from the Project and the social costs have been under-estimated.

(v) Findings in respect of air quality

387 The Commission should make findings in accordance with the evidence of Dr Gabriel da Silva (**Attachment D**).

388 The Commission should make a finding that the Project will contribute to increased mortality and negative health impacts for a community already affected by poor air quality.

(vi) Findings in respect of Biodiversity

389 The Commission should make findings in accordance with the evidence of Dr Steve Phillips (**Attachment E**).

390 The Commission should require that the Proponent fulfills its existing offset requirements under its current approval before approving the destruction of further critical habitat and threatened ecological communities that are irreplaceable.

391 The Commission should find that the Project will alter hydrological and fire regimes, thereby causing long-term shifts in vegetation community and irreversible ecosystem degradation.

392 The Commission should find that the Project will contribute to anthropogenic climate change, which is recognised as a key threatening process under NSW legislation.

(vii) Findings in respect of visual amenity

393 The Commission should make findings in accordance with the evidence of David Moir (**Attachment F**).

394 The Commission should find that the Project has an unacceptable impact on visual amenity.

(viii) Findings in respect of water resources

395 The Commission should make findings in accordance with the evidence of Dr Steven Pells (**Attachment G**).

396 The Commission should find that that the actual impacts to "highly productive" groundwater resources from the Project will be significantly larger than predicted due to inappropriate aspects of the groundwater modelling.

397 The Commission should find there is no feasible means for remediation of such impacts after mining.

398 The Commission should find that having a toxic lake in perpetuity is unacceptable.

(ix) Findings in respect of workforce transition issues

399 The Commission should make findings in accordance with the evidence of Dr Liam Phelan. (**Attachment H**).

(x) Findings in respect of public interest

400 Based on the above proposed findings, the Commission should find that, overall, approval of the Project is not in the public interest.

(xi) Overall Findings

401 Based on the above proposed findings, the Commission should conclude that the appropriate decision is that consent be refused.

F. UNREASONABLENESS, IRRATIONALITY AND ILLOGICALITY

F-I <u>The principles of legal unreasonableness</u>

402 It is convenient to say something as to the principles of legal unreasonableness.

403 This is because it is our submission, not only that consent should be refused on the merits, but that it would be *legally unreasonable* to grant consent.

404 Of course, the Commission does not need to go so far as to conclude that it would be legally unreasonable to grant consent; it would be sufficient for the Commission merely to conclude that consent should be refused.

405 Nevertheless, this is such a clear case, it is submitted, that the Commission could in fact go further and form the view that it is simply not open to grant consent.

406 There can be no dispute that the power to grant consent under s 4.38(1) of the EP&A Act, by reference to the factors in s 4.15, is subject to principles of legal reasonableness. That is, in deciding whether to grant consent, the Commission must act in a legally reasonable way. Or, put another way, the Commission would commit a jurisdictional error if the Commission decided to grant consent and, in doing so, acted in a legally unreasonable way.

407 There can be no dispute about this because, as a matter of general principle, and subject to contrary intention of which there is none manifest in the EP&A Act, *all* statutory powers must be exercised in a legally reasonable manner: see, eg, *Comcare v Banerji* (2019) 267 CLR 373 at [84]; *Probuild Constructions (Aust) Pty Ltd v Shade Systems Pty Ltd* (2018) 264 CLR 1 at [71]; *Minister for Immigration and Citizenship v Li* (2013) 249 CLR 332 at [24]-[29], [63], [86], [90]-[93]; *Minister for Immigration and Border Protection v SZMTA* (2019) 264 CLR 421 at [11]; *Minister for Immigration and Border Protection v Singh* (2014) 231 FCR 437 at [43]; *Minister for Home Affairs v DUA16* (2020) 95 ALJR 54 at [26].

408 A decision may be legally unreasonable either because of the ultimate outcome *or* because of the process adopted to reach that outcome: *ABT17 v Minister for Immigration and Border Protection* (2020) 269 CLR 439 at [19]-[21]; *Minister for Immigration and Border Protection v Singh* (2014) 231 FCR 437 at [44].

409 For example, the unreasonableness of a decision may be indicated by the outcome where the decision is "upon the material before the decision-maker, a decision to which no reasonable person could come": *ABT17 v Minister for Immigration and Border Protection* (2020) 269 CLR 439 at [19].

410 Equally, the unreasonableness of a decision may be indicated by the process adopted if the decision is reached "in a manner so devoid of plausible justification that no reasonable person could have taken that course": *ABT17 v Minister for Immigration and Border Protection* (2020) 269 CLR 439 at [19].

F-II <u>Conclusions</u>

411 It is submitted that the position is sufficiently clear that, upon the material before the Commission, the only reasonable conclusion is that each of the findings set out in section Findings the Commission should make] above should be made.

412 Further, it is submitted that the position is sufficiently clear that, upon the material before the Commission including having regard to those findings, the only reasonable conclusion is that consent should be refused.

G. CONCLUSION

413 In respect of State significant development, section 4.38 of the EP&A Act provides relevantly:

4.38 Consent for State significant development (cf previous s 89E)

(1) The consent authority is to determine a development application in respect of State significant development by:

(a) granting consent to the application with such modifications of the proposed development or on such conditions as the consent authority may determine, or

(b) refusing consent to the application.

414 The exercise of the power under section 4.38 of the EP&A Act to grant or refuse consent to the Project involves consideration, weighting and balancing of the environmental, social and economic impacts of the Project. It is our client's submission that the proper consideration, weighting and balancing of the environmental, social and economic impacts of the Project lead to a conclusion that the Project should be rejected.

415 The exercise of a similar power under the former Part 3A of the EP&A Act was described by Preston CJ in *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347 at [31] as involving a "polycentric" problem:

> The range of interests affected, the complexity of the issues and the interdependence of the issues, means that decision-making involves a polycentric problem. A polycentric problem involves a complex network of relationships, with interacting points of influence. Each decision made communicates itself to other centres of decision, changing the conditions, so that a new basis must be found for the next decision: Jowell J, "The Legal Control of Administrative Discretion" [1973] Public Law 178 at p 213.

416 Issues concerning a polycentric problem are interlinked:[186]

> A decision about one issue raised by the carrying out of the project is linked by interacting points of influence to decisions about other issues, necessitating readjustment of the project (Jowell at p 214).

417 Further, the criteria to be considered in determining a polycentric problem are numerous, cannot be objectively weighted, and are interdependent:[187]

> The decision-maker must not only determine what are the relevant matters to be considered in deciding whether or not to approve the carrying out of the project, but also subjectively determine the weight to be given to each matter. Eisenberg suggests that where this is the case, an optimal solution can normally be arrived at by vesting a single decision-maker with managerial authority; that is, authority not only to select and apply relevant criteria but also to determine how much

[186] *Bulga* [33].
[187] *Bulga* [35].

> weight each criterion is to receive, and to change those weights as new objectives and criteria may require (Eisenberg at p 425).

418 Preston CJ outlines the approach to determining a polycentric problem as follows:[188]

> … first, identification of the relevant matters needing to be considered; secondly, fact finding for each relevant matter; thirdly, determining how much weight each relevant matter is to receive, and fourthly, balancing the weighted matters to arrive at a managerial decision.

419 The fourth process, the balancing of the weighted matters:[189]

> is a qualitative and not quantitative exercise. The ultimate decision involves an intuitive synthesis of the various matters. Forms of economic analysis, such as cost benefit analysis, which endeavour to balance different factors by use of a common, quantitative unit, such as money, assist but are not a substitute for the intuitive synthesis required of the decision-maker.

420 The Court of Appeal dismissed a challenge to this approach (*Warkworth Mining Ltd v Bulga Milbrodale Progress Association Inc* (2014) 200 LGERA 375 at [147]-[174]), observing at [171] that the task for the Court is:

> to balance the public interest in approving or disapproving the project, having regard to the competing economic and other benefits and the potential negative impacts the Project would have if approved.

421 Similar to the decision to approve or refuse the development application in *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, the decision to approve or refuse consent to the Project is a polycentric problem.[190]

422 Importantly, the proponent and DPE have not been able to demonstrate that any need outweighs the significant environmental impacts that are likely to be caused.

423 Moreover, the proper balancing of the environmental, social and economic factors, considering the principles of ESD and in particular the principles of intragenerational and intergenerational equity, the precautionary principle, the principle of conservation of biological diversity and the polluter pays principle, results in:

(1) adverse climate change impacts;

(2) net negative economic benefits when considering the social cost of carbon;

(3) adverse social impacts;

(4) adverse biodiversity impacts;

---

[188] *Bulga* [36].
[189] *Bulga* [41].
[190] *Bulga* [33].

(5) adverse impacts on water resources;

(6) adverse air quality impacts;

(7) adverse visual amenity impacts; and

(8) workforce transition issues.

424 In the final analysis, the Project is not in the public interest and contrary to the principles of ESD. Each of the findings set out in section 5.2 above should be made. It would be unreasonable, irrational and illogical to approve the Project.

425 Accordingly, the Project must be refused consent.

ATTACHMENTS

Attachment A – Professor Sackett Report on climate change impacts of Project

Attachment B – Hutley Report on economic impacts of Project

Attachment C – Dr Askland Report on social impacts of the Project

Attachment D – Dr Silva Report on air quality impacts of the Project

Attachment E – Dr Phillips Report on biodiversity

Attachment F – Moir Report on visual amenity

Attachment G – Dr Pells Report on impact of Project on water resources

Attachment H – Dr Phelan Report on workforce transition

Attachment I – IEEFA Response to Coal Market Substitution Study

Attachment J – Bundle of additional climate change documents

Attachment K – Submission of Scott Frank on behalf of Plains Clans of the Wonnarua Aboriginal Corporation