



SECOND RESPONDENT'S CLOSING WRITTEN SUBMISSIONS

COURT DETAILS

Court Land and Environment Court of New South Wales
Class 1
Registry Level 4, 225 Macquarie Street, Sydney NSW 2000
Case number 2017/383563; 2018/23580

TITLE OF PROCEEDINGS

Case proceedings no. 2017/383563

Applicant Gloucester Resources Limited ACN 114 162 597
First respondent Minister for Planning
Second respondent Groundswell Gloucester Inc. INC1300990

Case proceedings no. 2018/23580

Applicant Stratford Coal Pty Ltd ABN 26 064 016 164
First respondent Minister for Planning
Second respondent Groundswell Gloucester Inc. INC1300990

FILING DETAILS

Filed for Groundswell Gloucester Inc. INC1300990
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INTRODUCTION

1. Groundswell Gloucester Inc. (**GG Inc.**) seeks orders that the Rocky Hill Coal Project (**Project**) and the Stratford Extension Project Modification (**Modification**) be refused development consent.
2. In summary, the Project and the Modification should be refused approval on the basis of the following contentions:
 - a. (**Climate change contention**): The Project is not in the public interest and contrary to the principles of ecologically sustainable development (**ESD**), including intergenerational equity and improved valuation, pricing and incentive mechanisms, because, in order to ensure that the rise in global temperatures will be limited to below 1.5 to 2 degrees Celsius above pre-industrial levels, the Project should not be approved at this time;
 - b. (**Social impact contention**): The Project and the Modification will have a significant social impact on residents and the community of Gloucester, contrary to the public interest, the principle of intergenerational equity, and the precautionary principle.
3. GG Inc. adopts the submissions of the Minister on social impact. In addition, GG Inc. supports, and adopts, the contentions advanced by the Minister in relation to town planning, visual impact and economics.

POLYCENTRIC APPROACH

4. 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.

5. 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 GG Inc.'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 and, as the Modification is contingent on the Project, that the Modification also be rejected.

6. 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.

7. Issues concerning a polycentric problem are interlinked:¹

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).

8. Further, the criteria to be considered in determining a polycentric problem are numerous, cannot be objectively weighted, and are interdependent:²

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

9. Preston CJ outlines the approach to determining a polycentric problem as follows:³

... 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.

10. The fourth process, the balancing of the weighted matters,⁴

is a qualitative and not quantitative exercise. The ultimate decision involves an intuitive synthesis of the various matters. Forms of economic analysis,

¹ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [33].

² *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [35].

³ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [36].

⁴ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [41].

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.

11. 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.

12. 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.⁵ The relevant matters contended by GG Inc. are climate change and social impact. The proper balancing of the environmental, social and economic factors by the Court results in:

- a. Adverse climate change impacts;
- b. Adverse social impacts;
- c. Adverse social impacts caused by noise; and
- d. Adverse town planning and visual impacts, for the reasons advanced by the Minister.

13. While it is purported that the Project will have economic benefits, the evidence has demonstrated that these have been overstated by GRL⁶ and any such benefits do not outweigh the negative impacts identified above.

14. In the final analysis, the Project is not in the public interest and contrary to the principles of ESD. The Project, and necessarily the Modification, must be refused consent.

⁵ *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347, [33].

⁶ Nigel Rajaratnam, Expert Report, [1.7], [2.4] and [2.35].

THE CONTENTIONS

A. CLIMATE CHANGE

The science of climate change

15. The International Panel on Climate Change (IPCC) (2013) states that:⁷

Climate change is a long-term challenge, but one that requires urgent action given the pace and the scale by which greenhouse gases are accumulating in the atmosphere and the risks of a more than 2 degree Celsius temperature rise. Today we need to focus on the fundamentals and on the actions otherwise the risks we run will get higher with every year.

16. Article 1 of the UN Framework Convention on Climate Change defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.”

17. GG Inc. adduced expert evidence from Professor Will Steffen, Emeritus Professor at the Australian National University and Senior Fellow at Stockholm Resilience Centre, who in his expert report explains:⁸

Greenhouse gases change the climate by trapping outgoing heat (long-wave radiation) 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.

18. Professor Steffen further explains in his report:⁹

Anthropogenic (human-driven) climate change refers to the changes in the climate system caused by human activities, primarily the emission of greenhouse gases into the atmosphere. The most important of these gases

⁷ IPCC, 2013: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 (IPCC 2013), p. v.

⁸ Prof Will Steffen, Expert Report, [9].

⁹ Prof Will Steffen, Expert Report, [8].

[causing anthropogenic climate change] is carbon dioxide (CO₂), with about 90% of CO₂ emissions arising from fossil fuel (coal, oil, gas) combustion and the remainder from land-use change (Le Quéré et al. 2017).

19. According to the uncontested authority on climate change science, the IPCC, in the Working Group I contribution to the Fifth Assessment Report Climate Change 2013: The Physical Science Basis.

Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased.¹⁰

20. The science is not challenged in this case.¹¹ Dr Fisher highlighted in his report that the IPCC is “widely considered the world’s leading authority on climate change matters.”¹² As he explained when giving oral evidence:

The IPCC, your Honour, is a group of thousands of experts who review the refereed and other literature and compile expert reports on that literature which I consider to be a fair and good representation of the state of the science and economics on this matter [of anthropogenic climate change].¹³

21. The starting point for the assessment of the Project must be the scientific consensus that climate change is happening and that reductions in greenhouse gas (GHG) emissions must occur rapidly if dangerous levels of climate change are to be avoided.

¹⁰ IPCC 2013, p 4.

¹¹ In their Joint Report, Prof Steffen and Dr Fisher agree that: “the peer reviewed literature, on which IPCC reports are based, provide a fundamental source of information on climate change: [6].

¹² Dr Brian Fisher, Expert Report, p 2.

¹³ Transcript 21/08/18, pp. 362-363.

22. The IPCC recognised¹⁴ that limiting the warming caused by CO₂ emissions alone with a probability of greater than 66% to less than 2 degrees Celsius since the period 1861-1880 will require cumulative CO₂ emissions from all anthropogenic sources to stay between 0 and about 1570 Gt C. These upper amounts are reduced to about 790GtC when accounting for non-CO₂ forcings. This is the concept of the ‘carbon budget’.
23. Professor Steffen further clarifies explains the carbon budget as that term is used by the IPCC:¹⁵

The ‘carbon budget’ approach is a conceptually simple, yet scientifically robust, approach to estimating the level of greenhouse gas emission reductions required to meet a desired temperature target, for example, the Paris accord 1.5 °C or 2 °C targets (Collins et al. 2013).

The approach is based on the approximately linear relationship between:

- a. The cumulative amount of carbon dioxide (CO₂) emitted from all human sources since the beginning of industrialisation (often taken as 1870); and*
- b. The increase in global average surface temperature (Figure 2; IPCC 2013).*

Once the carbon budget has been ‘spent’ (emitted), then emissions need to be net zero to avoid exceeding the temperature target.

24. The IPCC says that an amount of 515 Gt C was already emitted by 2011.¹⁶ Professor Steffen updates the remaining carbon budget to 2017:¹⁷

... From 1870 through 2017 cumulative human emissions have been about 575 Gt C (Collins et al. 2013; Le Quéré C et al.2017).

25. Dr Fisher agreed in cross-examination that, as at 2017, the remaining carbon budget was approximately 275 Gt C.¹⁸ The inevitable consequence of this approach, as

¹⁴ SPM Physical Science Basis: p. 27.

¹⁵ Prof Will Steffen, Expert Report, [38]-[40].

¹⁶ SPM Physical Science Basis: p. 27.

¹⁷ Prof Will Steffen, Expert Report, [42].

¹⁸ Transcript 21/08/18, pp. 370-371.

agreed by both experts, is the carbon budget will be spent by about 2040 at current rates of emissions and current rates of scientific knowledge and that in order to achieve a goal of limiting temperature increases to between 1.5 and 2 degrees Celsius it is necessary for countries to reach an emissions peak and take significant action to achieve rapid reductions in greenhouse gas emissions.¹⁹

26. The timing of this peak is important. As explained by Professor Steffen in his expert report:²⁰

2020 is probably the earliest that emissions can peak, and it is important that they do. Delaying the peak just five further years would create a subsequent emission reduction trajectory that would be impossible to follow economically or technologically.

27. Professor Steffen further explains: “The carbon budget is a global budget and it's based on the physics of the climate system, so it doesn't matter where the carbon is burnt.”²¹

28. On Professor Steffen's evidence, the link between the global carbon budget and individual projects such as the Project is clear:²²

There is no way you will meet any of these targets if you continue to increase emissions and I think that's a clear and very robust outcome of applying a carbon budget approach to the Paris targets is that we do indeed have a really significant reduction challenge and that means that the first thing you must do is not increase emissions. So point number 1 is no new fossil fuel developments because we have far more than we already can fully exploit out there on the books and under production. The-trick is - and I agree with Dr Fisher on this - we need to reduce and we need to be clever about how best socially and economically we reduce but I emphasise it's reduce not increase. So step number 1 if you're really serious about the Paris targets is no new

¹⁹ Transcript 21/08/18, pp. 370-371.

²⁰ Prof Will Steffen, Expert Report, [48].

²¹ Transcript 21/08/18, p. 382-385.

²² Transcript 21/08/18, p. 377.

fossil fuel developments. I mean, it doesn't take an Einstein to work that out, that you cannot reduce emissions by increasing them.

29. From this accepted scientific basis, Professor Steffen agreed with Dr Fisher:²³

that we need some extremely careful social and economic analysis, so to speak to get the biggest bang out of the limited amount of fossil fuel we can still use, and the corollary, of course, which is the, my main point is you cannot do that by increasing fossil fuel emissions. That's actually just going in the wrong direction.

30. The Paris Agreement, to which 197 parties are signatories, is a recognition by most of the world's countries that climate change is occurring and that GHG emissions need to be reduced. It adopts the scientific consensus found in the IPCC Fifth Assessment Report and consequently the signatories are aiming to *inter alia*:

*Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.*²⁴

31. Crucially, the parties to the Agreement recognise that reductions in GHG emissions are necessary. Article 4 states that, in order to achieve the long-term temperature goal set out in article 2, the parties aim to reach global peaking of GHG as soon as possible, and to undertake rapid reductions thereafter in accordance with best available science.

32. Each of the Paris Agreement and a country's Nationally Determined Contributions (NDCs) is silent as to how the required reductions in emission levels are to be achieved. Rapid reductions are to be achieved "in accordance with best available science". Dr Fisher and Professor Steffen agree that the appropriate level of emission reductions required to achieve the temperature goal in the Paris Agreement is a

²³ Transcript 21/08/18, p. 379.

²⁴ Paris Agreement, Article 2(1)(a).

scientific question,²⁵ not a political one, and that “as best the science tells us today”²⁶ the carbon budget used by the IPCC specifies the amount of carbon that can be emitted or spent in order to ensure that we do not exceed a 2 degree Celsius temperature increase above pre-industrial levels.

The principles of the public interest and ESD (including intergenerational equity)

33. Clearly, climate change needs to be tackled at the global, geopolitical level, and by industry. But equally, complementary action needs to be taken at a more local level around the world, by local decision-makers who regulate individual applications for development consent. That is because limiting the effects of climate change is necessary to achieve sustainable development (and equity), and is in the public interest.
34. We set out in our written outline of opening submissions, at [34]-[38] that the EP&A Act and the Court Act require the Court to have regard to the public interest and the principles of ESD when determining this development application, and, at [45]-[53], why the approval of this greenfield coal mine will conflict with the principles of ESD and be contrary to the public interest.
35. Further, clause 14(2) of the Mining SEPP requires the decision maker to assess GHG emissions (including downstream emissions) of the development. At an even more micro level, a particular aim of the Gloucester Local Environmental Plan (LEP) 2010 is to:

*embrace and promote the principles of ecologically sustainable development, conservation of biological diversity and sustainable water management, and to recognise the cumulative effects of climate change.*²⁷

36. Thus, at all levels of the planning framework, commencing with the EP&A Act, down to the SEPP, and finally the LEP, there is a statutory obligation the decision maker to assess the climate change implications of an individual development such as the current Project.

²⁵ Transcript 21/08/18, p. 365

²⁶ Transcript 21/08/18, p. 365

²⁷ Clause 1.2(2)(d), Gloucester LEP 2010.

37. As Professor Steffen stated in cross-examination, in answer to a question from Mr Galasso SC on whether it was unfair to ask the Court to “do something that none of the member states have done in terms of this global issue”.²⁸

We have multiple levels of governance systems. I happen to live in the ACT. I've got a governance system there that in fact I've worked with in terms of advising them on what the ACT can do to reduce its emissions so I would argue that we've got to work at all levels. This is a massive collective action problem. It's a wicked problem because of multiple sources and so on and it's been kicked around in the governance system for so long now that it's actually becoming really urgent that we do something. (Emphasis added.)

38. Given the scientific consensus that climate change is occurring, it should be uncontroversial that a core component of the public interest and the principles of ESD (including, in particular intergenerational equity) must be to make decisions about development applications which have the effect of limiting the dangerous effects of climate change. Based on the evidence, the Court will accept the scientific consensus and the consequences of climate change. However, the Court cannot accept the science of climate change, but then ignore its consequences, if it is to assess properly the development application in terms of its potential impact on future generations. That is because the uncontested evidence is that, unless CO₂ emissions are rapidly reduced to the fullest extent possible, future generations will be condemned to suffer the effects of dangerous climate change.
39. The correct approach was identified in *Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd* (2007) 161 LGERA 1. In that case, a merits appeal against the approval of a large wind farm, the Court recognised that achieving intergenerational equity involved a consideration of the conservations of options subprinciple. Preston J stated at [74]:

The attainment of intergenerational equity in the production of energy involves meeting at least two requirements. The first requirement is that the timing of and the subsequent use in the production of energy of finite, fossil fuel resources needs to be sustainable. Sustainability refers not only to the

²⁸ Transcript 21/08/18, pp. 396-397.

exploitation and use of the resource ...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.

40. Approval of the Project would be in conflict with this fundamental aim of protecting future generations from adverse consequences of rising GHG emissions, because the approved extraction, and burning, of coal from this greenfield coal mine would increase, not reduce emissions, and would add to the cumulative effects of climate change and thus undermine the public interest and the principles of ESD (and intergenerational equity). The Project is not in the public interest and should therefore be refused.

The impacts of climate change on future generations

41. The accepted science is also that the cumulative effects of climate change are already being experienced around the world, including in NSW and in the Gloucester region, and that those effects will worsen unless GHG emissions are reduced rapidly.
42. Professor Steffen identifies that: “Currently global average surface temperature is about 1°C higher than pre-industrial levels and 2014, 2015, 2016 and 2017 have been the four hottest years on record”.²⁹ Thus:

The impacts of climate change are already being felt around the world... some of the most important impacts are:

- a. Warmer and/or fewer cold days and nights over most land areas.*
- b. Warmer and/or more frequent hot days and nights over most land areas.*

²⁹ Prof Will Steffen, Expert Report, [10].

- c. Increases in the frequency and/or duration of heat waves in many regions.*
- d. Increase in the frequency, intensity and/or amount of heavy precipitation (more land areas with increases than with decreases).*
- e. Increases in intensity and/or duration of drought in many regions since 1970.*
- f. Increases in intense tropical cyclone activity in the North Atlantic since 1970.*
- g. Increased incidence and/or magnitude of extreme high sea levels.³⁰*

43. The impacts of climate change are also being felt across Australia. For the NSW mid-north coast region:³¹

The NSW mid-north coast region and adjacent inland areas have also experienced many impacts of climate change. These include:

- a. The incidence of coastal flooding events has likely increased by approximately three-fold through the 20th century, as observed in Sydney Harbour (the nearest observation station with long-term records) (Church et al. 2006).*
- b. Heatwaves have worsened in the following ways: (i) the number of heatwave days is increasing; (ii) the first heatwave of the season is occurring earlier; and (iii) the hottest day of a heatwave is becoming hotter (Perkins and Alexander 2013).*
- c. In terms of bushfire weather, there are no long-term monitoring stations in the NSW mid-north coast region, but further inland in central-west NSW there has been a significant increase in the McArthur Forest Fire Danger Index (FFDI) from 1973 to 2013 (CSIRO and BoM 2015). At Nowra on the NSW South Coast, there has also been an increase in the FFDI from 1973*

³⁰ Prof Will Steffen, Expert Report, [13].

³¹ Prof Will Steffen, Expert Report, [18].

to 2013, although of a smaller magnitude than for the central-west NSW station (Clarke et al. 2013).

d. Observations show mixed changes in rainfall patterns for the region. For the northern wet season (October to April), rainfall has been above average for the 1997-2013 period. For the southern cool season (April to September), rainfall has been above average along the coast but below average in some inland areas (CSIRO and BoM 2015).³²

44. It therefore comes as no surprise that climate change directly affects Gloucester and its community. Ms Naomi Kilby, the Director of the successful Barrington Outdoor Adventure Centre, explained to the Court:

My business is already feeling the impact of climate change. Rainfalls that were once predictable are no longer so. Rivers that were constantly full are no longer so. The number of days that we are unable to operate river tours due to low water are increasing each year...

45. Dr Garry Lyford, a local GP in Gloucester for 32 years, is also concerned about the effect on his patients from climate change:

... Already I see the effects of heat extremes during summer in our emergency room. It usually takes the form of a collapsed cricket or other sportsman, but more commonly it's due - I see it in the elderly people. It is people that have lost their ability to cope with the extremes of heat. They come in dehydrated, delirious, confused. And those scenarios must be repeated in emergency rooms all over the world and will increase. Good health is a major determinant of well-being. It is a privileged gift that seems often to have been bestowed unfairly and chaotically. It is the great responsibility of society to see that health is safeguarded and fostered.

46. Climate change impacts are already being experienced in other, more remote parts of Australia. Traditional owner and elder from Saibai Island in the Torres Strait Islands, Aunty Rose Elu, gives evidence in her written submission that the impacts of climate

³² In the Joint Report, Steffen & Fisher agree that, in the Australian context, the CSIRO and the Bureau of Meteorology are good authorities on climate change matters: [5].

change are already being felt by her community and expresses fear for the safety and security of her community as climate change impacts increase. She observes:³³

We (Melanesian and Polynesian people) are sea faring people and the ocean is very important to us. Our wellbeing and livelihood rests upon the sea, and the gardens. The sands have been eroded and all the gardens are gone, because the water has turned into salt, so we can't grow the vegetables like we used to grow with our forefathers.

...

Over the years, the weather patterns have changed in Saibai and nearby islands. Weather events have become more frequent. Previously, the monsoonal season usually started after Christmas to March or April, but now we can have a monsoon just anytime of the year. There has also been a change of patterns in the wind and the rain. I've noticed this, at the beginning of this year, after March/ April it was still pouring rain and the sea was getting really rough. I was on the plane coming from the airport to the wharf on Horn Island to Thursday Island, and I could see the water was very high, it was coming over the jetty. That was very unusual, it was scary. I used to be able to walk across the jetty. I have seen the changes in the Torres Strait, and God knows what is ahead. For the first time, a house was washed away earlier this year on one of the Central Islands in the Torres Strait.

47. Aunty Rose goes on to speak about the need to protect the Torres Strait Islands from the impacts of climate change, for current and future generations:³⁴

Climate Change is impacting the future of the environment and the people especially the first nation people of this country and my people of the Torres Strait, their livelihood and that of their children and grandchildren. We need to address the future of the Torres Strait Islands and its people. ... An old lady told me – God has given me this land and the water around it for me to live here and have my life. If this is his will that my island sinks, then I sink with it. ... It is these kind of impacts that have made me become very

³³ Written submission of Rose Elu, pp. 9-11.

³⁴ Written submission of Rose Elu, pp. 11, 20.

instrumental in the issue of climate change, and become an advocate to talk about it wherever I can – locally, nationally, and internationally.

...

On the 26th of February, the Australian Government confirmed it will invest a total of \$12 million for the Torres Strait Islands Seawalls Project to protect six low-lying islands from the impacts of king tides and coastal erosion. But seawalls will not make the problem of climate change go away. We have to look beyond the seawalls to make sure the Torres Strait Islands are here to stay for our current and future generations.

48. As confirmed by Dr Fisher during cross-examination, scientific analysis contained in the IPCC Fifth Assessment Report demonstrates that continued emissions of greenhouse gases will cause further atmospheric warming around the world. Further, scientific analysis demonstrates that continued emissions will cause other changes to the climate system including further warming of the oceans and rises in sea levels around the world.³⁵
49. As explained by Professor Steffen in his expert report,³⁶ a 4°C temperature increase, which is what would result if all countries adopted Australia’s current climate ambition and policy settings, would create a high to very high risk that:
- a. Most of the world’s ecosystems would be heavily damaged or destroyed;*
 - b. Extreme weather events would be far more severe and frequent than today;*
 - c. The most vulnerable people would increase greatly in number and, as large areas of the world become uninhabitable, migration and conflict would escalate;*
 - d. The aggregated impacts around the world would significantly damage the entire global economy; and*
 - e. A cascade of intrinsic tipping points in the climate system could drive ongoing strong warming even as humanity finally took action to reduce its emissions.*

³⁵ Transcript 21/08/18, p. 363

³⁶ Prof Will Steffen, Expert Report, [31].

50. These consequences will be felt most strongly by future generations, in conflict with the principles of ESD and intergenerational equity. As expressed by 13 year old community objector Anita Jackson:

Climate change poses the greatest challenge to my generation. We know the world is warming; it is because of us, we are sure. After all, 195 countries signed the Paris climate agreement. Approving the mine will see a new source of carbon being added to the atmosphere in the form of coking coal. As decision makers, you have the obligation with the growing problem of global warming to reduce carbon emissions across the board.

51. The argument that the Project contributes insignificantly to global GHG emissions, and thus has a minimal impact on climate change, can be dismissed immediately. Arguing that a single proposal or event is immaterial because it is a tiny percentage in terms of its impact fails to acknowledge cumulative and incremental impacts: see *BT Goldsmith Planning Services Pty Ltd v Blacktown CC* [2005] NSWLEC 210 at [90] per Pain J and her Honour's comments in *Gray (supra)* at [122] as follows:

In terms of environmental impact assessment which takes into account the principle of intergenerational equity, as set out above, one important consideration must be the assessment of cumulative impacts of proposed activities on the environment. As I stated in BT Goldsmith (at [90]) failure to consider cumulative impact will not adequately address the environmental impact of a particular development where often no single event can be said to have such a significant impact that it will irretrievably harm a particular environment but cumulatively activities will harm the environment. In BT Goldsmith I was considering a different provision of the EP&A Act concerning the requirement to undertake a species impact statement under s 78A. While the provisions were different and my conclusions were based in part on the objects of the EP&A Act and the Threatened Species Conservation Act these findings also apply here.

52. A similar argument confronted the Dutch Court in the *Urgenda* case. The argument made by the State was that there was little utility in adopting the plaintiff's CO₂ reduction targets because the reductions would represent only 0.04-0.09% of global emissions. The argument was dismissed by that Court as follows (at [4.79]):

This argument does not succeed. It is an established fact that climate change is a global problem and therefore requires global accountability ... more reduction measures have to be taken on an international level. It compels all countries, including the Netherlands, to implement the reduction measures to the fullest extent as possible. The fact that the amount of the Dutch emissions is small compared to other countries does not affect the obligation to take precautionary measures in view of the State's obligation to exercise care. After all, it has been established that any anthropogenic greenhouse gas emission, no matter how minor, contributes to an increase of CO2 levels in the atmosphere and therefore to hazardous climate change...

53. As set out throughout these submissions, the urgent need is for GHG emissions to be reduced rapidly, to the fullest extent possible, if the “well below” 2 degrees Celsius target is to be met. GRL has been unable to prove that the approval of the mine will reduce CO₂ emissions, not increase them (for example by demonstrating that, if the mine was refused, the demand would be met by coal producers in the USA whose GHG emissions would be greater than those produced by coal exporters in the USA due to the increased transportation distances to Asian markets from USA).³⁷ In any case, any such “substitution defence” is at odds with the science that all emissions cumulatively contribute to the impacts of climate change.³⁸
54. The evidence suggests that, if the Project is refused, the demand for coking coal can be met by other existing mines within Australia.
55. Mr Buckley gives evidence that the vast majority of Australian coking coal production and reserves are located in Queensland, with many new coking coal projects under development, and that there are a number of existing thermal, thermal/coking, and coking mine operations across Queensland and NSW that could expand coal output should demand increase.³⁹ He finds that:

³⁷ Exhibit A, Part F, Tab 28 E(b) Air Quality Assessment page 2A-159: the EIS does not assess the emissions from the shipping of product coal “due to the uncertainties in emission estimates, including uncertainty in future export destinations and limited data on emission factors and/or fuel consumption for ocean going vessels”).

³⁸ Dr Justine Bell-James and Sean Ryan, ‘Climate change litigation in Queensland: A case study in incrementalism’ (2016) 33 *EPLJ* 515, p. 530.

³⁹ Tim Buckley, Expert Report, pp. 51-54 and Appendix 3.

There are a number of new coking coal mines already in operation, or approved and under development across Australia, such that the Rocky Hill Project is not required, particularly if the IEA's SDS forecast of a 40% decline in demand by 2040 proves accurate.

56. Mr Manley indicates that the coking coal from the Project has high fluidity qualities relative to other coking coal produced in Australia. However, Figure 6 of Mr Manley's expert report demonstrates that there are other mines in Australia already producing, or capable of producing, high fluidity coking coal.
57. Exhibit W, provided by Mr Manley after giving evidence, shows that coking coal mines with a max fluidity of approximately 1,000 DDPM or more include Integra (Underground), Broadmeadow, Wongawilli, Goonyella and Moranbha North.
58. Mines that produce both coking coal and thermal coal and have a max fluidity of approximately 1,000 DDPM or more include Austar, Duralie, Stratford, Kestrel, Dawson Complex, Tahmoor, Appin, and Byerwren.
59. Appendix B of Mr Buckley's expert report demonstrates that current coking coal production in Australia is by no means insubstantial. In 2016-17 there were more than 17 companies, including all the major coal producers in Australia, producing over 150 million tonnes of coking coal.

Global demand for coking coal

60. In any event, Mr Tim Buckley gives evidence that global demand for coking coal is forecast by the International Energy Agency (IEA) to decline by more than 40% from 2015 levels by 2040 – or by 15% by 2023. At the same time, the Commonwealth Chief Economist forecasts a rise in exports of Australian coking coal production and exports by more than 18% between 2017 and 2023 (this estimate includes Rocky Hill's 2Mtpa).⁴⁰ Mr Buckley states, "This shows there is more than sufficient coking coal in production or already approved to meet existing and expected demand over the project life."⁴¹
61. The Wood Mackenzie forecasts of coking coal demand should be treated with caution in light of the evidence of Mr Buckley, in particular the evidence that

⁴⁰ Tim Buckley, Expert Report, p. 50.

⁴¹ Tim Buckley, Expert Report, p. 50.

countries and industries around the world are ramping up efforts to reduce GHG emissions in order to fulfil the commitments under the Paris Agreement. The Wood Mackenzie supply and demand forecast relied upon by GRL is based on an assumption that the Paris Agreement commitments will not be met, that substantial emission reductions will not be made around the world, and that the aim to limit temperature increases to well below 2°C warming will fail:

WHITE: Can I assume as well then that a built in assumption into the Wood Mackenzie demand and supply forecast is that the IEA [International Energy Agency] sustainable development scenario will not happen during the lifetime of the mine?

WITNESS MANLEY: We don't believe it will, no. Yeah.

WHITE: Just as an answer to the question, your demand and supply forecast explicitly excludes the SDS scenario taking place?

WITNESS MANLEY: Our baseline forecast, that's correct, yes.⁴²

62. A consequence of this is that the modelling done by Mr Manley fails to take into account the IEA forecast that demand for metallurgical coal will decline by 40% by 2040, should the right policy settings be put in place. Such a forecast inherently relies on an assumption that substitutes for coking coal and steel using known and expected technology developments will become available over a period of time very close to that of the proposed life of the Rocky Hill Coal Project. The IEA is a peer-reviewed document endorsed by numerous major coal mining firms, utilities and steel manufacturers globally. Mr Buckley's evidence illustrated examples of the sort of technologies and policies that the IEA is incorporating in their modelling under the SDS. These projects are commercially viable and deployable, and according to Mr Buckley:

if we have the right policy framework, if we have a price on carbon emissions, then alternative products by definition become more competitive and what I'm demonstrating is that there are alternative products that have been proven and

⁴² Transcript 21/08/18, p. 436.

*available for decades. With the right policy framework, with the right price signal, they can be accelerated dramatically.*⁴³

63. The clear assumptions made by the IEA makes the modelling relied on by Mr Manley optimistic at best, and clearly inconsistent with a carbon budget that limits anthropogenic climate change to well below 2°C.
64. Finally, Professor Steffen referred to the publication by the authors Christophe McGlade and Paul Ekins entitled “The geographical distribution of fossil fuels unused when limiting global warming to 2°C” published in Nature Vol 517 on 8 January 2015. Using a conservative remaining carbon budget of 300 Gt C (Professor Steffen and Dr Fisher say it is now more like 215 Gt C), the study showed that if all of the world’s existing fossil fuel reserves were burned, about 780 Gt C would be emitted as CO₂, about 2.5 times greater than the allowable budget.

*Globally, 62% of the world's existing fossil fuel reserves need to be left in the ground, unburned, to remain within the carbon budget... 88% of global coal reserves are unburnable for any purpose... The regional analysis yielded even more stringent conditions for Australia's fossil fuel industry... Over 90% of Australia's existing coal reserves cannot be burned to be consistent with the Paris accord 2°C target, and certainly not with the more stringent Paris accord 1.5°C target.*⁴⁴

65. The evidence thus demonstrates that there are already sufficient fossil fuel projects approved to exceed the carbon budget. Within those approved projects there are opportunities “to be clever about how best socially and economically we reduce” emissions, but it remains a fundamental consideration that, as Professor Steffen states, “you cannot reduce emissions by increasing them”. Professor Steffen maintains his view that: “It’s one atmosphere. It’s one climate system. It’s one planet and so we need to start thinking more carefully about the net effect of wherever coal is burnt or oil or gas.”⁴⁵ The Project’s contribution to cumulative

⁴³ Transcript 21/08/18, p. 418.

⁴⁴ Prof Will Steffen, Expert Report, [52]-[54].

⁴⁵ Transcript 21/08/18, p. 373.

climate change impacts mean that its approval would be inequitable for current and future generations.

66. Most recently, on 22 March 2018,⁴⁶ the Secretary of State for Housing, Communities and Local Government in England refused to grant development consent, following a merits hearing, for a 3Mt (much smaller than the Project) open cut coal mine in Northumberland, England. The Secretary of State accepted the Planning Inspector's reasons that GHG emissions from the development would adversely impact upon measures to limit climate change. At [34] of the Decision Letter the Secretary of State continued:

"[The Secretary of State] further agrees that most of the GHG emissions would be emitted in the short term, resulting in an adverse effect of substantial significance, reducing to minor significance in the medium term; and that Green House Gas emissions in the long term would be negligible, but that the effects of carbon in the atmosphere would have a cumulative effect in the long term (IR 115). Given that cumulative effect, and the importance to which the Government affords combatting climate change, he concludes that overall the scheme would have an adverse effect on Green House Gas emissions and climate change of very substantial significance, which he gives very considerable weight in the planning balance."

67. There are currently no State, Australian or international policy frameworks or market-based measures to prevent or prioritise the combustion of coal in a manner that will ensure global temperature rise will not exceed 1.5 to 2 degrees Celsius above pre-industrial levels, contrary to the principle of improved valuation, pricing and incentive mechanisms.⁴⁷ Given the lack of such sufficient policy frameworks or market-based measures and, because the Project will contribute to cumulative anthropogenic GHG emissions that are currently projected to exceed the carbon budget, any conditions to be attached to the Project will be insufficient to address its cumulative GHG impacts.

⁴⁶ APPP2935/V/16/3158266,

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692060/18-03-23_DL_IR_Highthorn_3158266.pdf>, accessed on 9 August 2018.

⁴⁷ Refer to GG Inc.'s Opening Written Submissions, [68]-[75].

Conclusion – climate change

68. In conclusion, it is not in the public interest and contrary to the principles of ESD, in particular the principle of intergenerational equity, to approve this Project because the inevitable GHG emissions (Scope 1, 2 & 3) from the proposed development would not reduce GHG emissions and would not limit dangerous climate change. The approval of a new greenfield coal mine, and the resulting increase in GHG emissions, are inconsistent with the remaining carbon budget and the urgent need, as recognised by a consensus of the scientific community, to keep global temperature increases to below 1.5 to 2 degrees Celsius above pre-industrial levels. This requires emissions from GHG to be reduced, not increased. As the burning of coal (including coking coal) is the highest contributor to GHG emissions and there are currently no State, Australian or international policy frameworks or market-based measures to prevent or prioritise the combustion of coal in a manner that will ensure global temperature rise will not exceed 1.5 to 2 degrees Celsius above pre-industrial levels, the Project should be refused consent.

B. SOCIAL IMPACT

69. The evidence has demonstrated that the Project and the Modification will have a significant social impact on residents and the community of Gloucester, contrary to the public interest and the principles of ESD, in particular the principle of intergenerational equity and the precautionary principle.

70. The evidence is found in:

- a. the expert evidence of Dr Hedda Askland and Dr Rebecca Lawrence, which should be preferred to the expert evidence of Professor Roberta Ryan;
- b. the joint expert report of Dr Askland, Dr Lawrence and Professor Ryan;
- c. the further evidence of Professor Ryan during cross-examination; and
- d. the objector evidence given in oral and written form by the lay objectors.

Expert Evidence

Dr Hedda Askland

71. GG Inc. adduced evidence from Dr Hedda Askland, Senior Lecturer in Anthropology and the Project Director, Centre for Social Research and Regional Futures at the University of Newcastle. On the basis of her review of the documents related to the Project and the Modification and primary data collected through semi-structured interviews with local residents, Dr Askland opines in her expert report that the social impacts of the Project and the Modification are significant.⁴⁸ While Dr Askland's report focusses on the social impacts of the Project, she notes that the Project is contingent upon the Modification⁴⁹ and that her opinion is, accordingly, important in relation to the assessment of the Modification.⁵⁰

72. In Dr Askland's opinion, the key issues in relation to the social impacts of the Project are:

- a. the proximity between the Project and private residents and the township of Gloucester;

⁴⁸ Dr Hedda Askland, Expert Report, [10].

⁴⁹ This is evident from a review of the Project documentation relating to the commercial agreement between GRL and Yancoal Australia Limited. See GG Inc., Opening Written Submissions filed 9 August 2018, pp. 3-4 [10].

⁵⁰ Dr Hedda Askland, Expert Report, [41].

- b. the impact on people's sense of place and community;
- c. the social impacts of noise and pollution;
- d. the depopulation of neighbourhoods; and
- e. the failure of the proposed mitigation strategies to address the direct social and environmental impacts on the Project's immediate neighbours.⁵¹

73. While Dr Askland's report is not a social impact assessment, she evaluates the Project's social impact in line with the recently released Department Social Impact Assessment Guidelines (2017).⁵² Dr Askland documents adverse social impacts in terms of *solastalgia*⁵³ (the feeling of desolation and melancholia derived from chronic changes to loved home environments),⁵⁴ *topophilia* (the affective bond between people and place or setting),⁵⁵ and *eritalgia* (the future-related component of place, encapsulating the sense of temporal rupture by which individuals no longer can imagine themselves in a future place).⁵⁶ The natural environment is central to local residents' identity and sense of place,⁵⁷ and this loved environment will be destroyed, rupturing the positive emotional bond between self and environment.⁵⁸

74. In Dr Askland's opinion, the Project and the Modification present moral concerns related to the weighting of social, economic and environmental impacts, which requires valuation of social, economic and environmental costs and benefits as they manifest within different locations. This impact is particularly acute for those living within the estates in close proximity to the Project,⁵⁹ particularly in relation to the

⁵¹ Dr Hedda Askland, Expert Report, [10].

⁵² Dr Hedda Askland, Expert Report, [45].

⁵³ Considered in *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Ltd* (2013) 194 LGERA 347.

⁵⁴ Dr Hedda Askland, Expert Report, [106].

⁵⁵ Dr Hedda Askland, Expert Report, [138].

⁵⁶ Dr Hedda Askland, Expert Report, [141].

⁵⁷ Dr Hedda Askland, Expert Report, [29].

⁵⁸ Dr Hedda Askland, Expert Report, [139].

⁵⁹ Dr Hedda Askland, Expert Report, [12].

negative environmental and social impacts of noise, light, traffic, air pollution and amenity.⁶⁰

75. Dr Askland states that while the Social Impact Assessment prepared for the Amended DA (SIA) has several “strengths”, its actual assessment of impacts is inadequate⁶¹ because, *inter alia*:

- a. social impacts are only assessed as positive or negative and there is no structured assessment of key characteristics such as duration and likelihood;⁶²
- b. there is no inclusion of a social risk matrix, nor a summary comparison of evaluation results for negative impacts;⁶³
- c. the scepticism and lack of trust within significant sections of the community in relation to GRL are not discussed and the communication strategies criticised by the community are incorporated into the proposed mitigation and management plan;⁶⁴
- d. the managerial and proponent-driven and funded approach, by which the SIA becomes a matter of assessing how to establish conditions of consent and not whether or not consent should be given in the first place, has resulted in a muting of the key community concerns about place;⁶⁵
- e. the importance of the zoning and efforts by Council to maintain Gloucester as a “green” place characterised by its rural and environmental qualities is underplayed;⁶⁶
- f. the meaning that local people bestow upon the landscape and the impact that the mine will have on people’s sense of place, place attachment and community is only given limited consideration.⁶⁷ There is an absence of

⁶⁰ Dr Hedda Askland, Expert Report, [39].

⁶¹ Dr Hedda Askland, Expert Report, [15]-[16].

⁶² Dr Hedda Askland, Expert Report, [16].

⁶³ Dr Hedda Askland, Expert Report, [17].

⁶⁴ Dr Hedda Askland, Expert Report, [17].

⁶⁵ Dr Hedda Askland, Expert Report, [20]-[23].

⁶⁶ Dr Hedda Askland, Expert Report, [23].

⁶⁷ Dr Hedda Askland, Expert Report, [35].

stories about the psychoterratic (earth-related) relationships that local people have to Gloucester as a place;⁶⁸

- g. cumulative impacts as temporal, linked and perceived are not assessed;⁶⁹
- h. the impacts of the Project on tourism are underestimated, particularly the impacts on the image of Gloucester as a “green tourism destination”. The Project contradicts “brand Gloucester”, which, unlike the irrelevant examples used in the SIA of Mudgee and Gunnedah (not dissimilar to the irrelevant comparators of Narrabri, Kandos and Denman used by Professor Ryan),⁷⁰ rest upon the idea of a pristine environment;⁷¹
- i. it is not interrogated whether or not the Project workers will remain locally employed post-operation. It can be assumed that the workers employed in the mine may have to seek work elsewhere when the Project concludes;⁷²
- j. there is no mention of Aboriginal heritage and the importance of Country and landscape is not adequately acknowledged.⁷³ The mitigation strategy does not address the issues of Country and landscape;⁷⁴
- k. the substantial historic heritage and heritage-scenic qualities are not directly incorporated;⁷⁵
- l. there is no documentation of the community’s and doctors’ fears and concerns regarding air pollution, nor assessment of the risk, for example asthma and the exacerbation of pre-existing illnesses;⁷⁶
- m. there is no discussion about how solastalgia, the likelihood for place-based distress and emotional connections to place manifest within the community;⁷⁷

⁶⁸ Dr Hedda Askland, Expert Report, [143].

⁶⁹ Dr Hedda Askland, Expert Report, [47].

⁷⁰ Prof Roberta Ryan, Statement of Evidence, p. 55.

⁷¹ Dr Hedda Askland, Expert Report, [31]-[34].

⁷² Dr Hedda Askland, Expert Report, [58].

⁷³ Dr Hedda Askland, Expert Report, [88]-[89].

⁷⁴ Dr Hedda Askland, Expert Report, [91].

⁷⁵ Dr Hedda Askland, Expert Report, [92].

⁷⁶ Dr Hedda Askland, Expert Report, [97]-[99].

- n. the suggestion that negative mental health impacts for some can be balanced by positive mental health outcomes for others undermines individual suffering;⁷⁸ and
- o. the notion of displacement – the concern that unless GRL purchases resident’s property, they will be left with stranded assets – is not considered.⁷⁹

76. Significant in Dr Askland’s analysis of the SIA is her criticism that the SIA’s technocratic approach does not encapsulate the phenomenological, lived-experience of place.⁸⁰ Dr Askland opines that “place” is an interaction between biophysical, social and ontological components with intergenerational qualities, and this notion of place is rejected in the SIA.⁸¹ Instead, the SIA adopts a technocratic approach emphasised by mitigation strategies. But the mitigation strategies, rather than mitigate impact, are themselves an intrusion (e.g. the proposed amenity barriers). They do not offer a solution that incorporates people’s lived experience and emotional connection to Gloucester as a place.⁸²

77. Further, Dr Askland notes that the SIA reaches its conclusions based on best-case scenarios, whereas a precautionary principle would be better suited for assessing impact.⁸³ It should be noted that reliance on best case scenarios by GRL’s experts has been a consistent feature of their evidence.⁸⁴

⁷⁷ Dr Hedda Askland, Expert Report, [106]-[107].

⁷⁸ Dr Hedda Askland, Expert Report. [110].

⁷⁹ Dr Hedda Askland, Expert Report, [118].

⁸⁰ Dr Hedda Askland, Expert Report, [25].

⁸¹ Dr Hedda Askland, Expert Report, [23].

⁸² Dr Hedda Askland, Expert Report, [11].

⁸³ Dr Hedda Askland, Expert Report, [63].

⁸⁴ For example, Stephen Brown’s reliance on the local employment percentage of 75%. See Transcript 22/08/2018 p. 558; Nigel Rajaratnam, Expert Report [2.11]; Dr Rebecca Lawrence, Expert Report, pp 21, 37.

Dr Lawrence

78. Similarly, Dr Lawrence concludes in her expert report that the SIA is inadequate because, *inter alia*:

- a. the SIA does not set out its methodology;⁸⁵
- b. there is no overall assessment of consultations with local residents and stakeholders, including the fact that opposition to the proposal is significantly greater than support for it;⁸⁶
- c. there does not appear to have been a formal scoping process nor a review of relevant literature;⁸⁷
- d. the social baseline is not well tailored to respond to the list of key social impacts;⁸⁸
- e. there is no mention of the precautionary principle;⁸⁹
- f. the SIA fails to engage adequately with critical issues of distribute equity;⁹⁰
- g. Aboriginal people are largely absent from the SIA;⁹¹
- h. the treatment of social impacts is descriptive, rather than providing an actual assessment or evaluation, and several concerns raised by the community are not included (e.g. climate change);⁹²
- i. the SIA fails to deal adequately with issues of sense of place and amenity, conflating sense of place with amenity and reducing the latter to visual amenity;⁹³

⁸⁵ Dr Rebecca Lawrence, Expert Report, p. 7.

⁸⁶ Dr Rebecca Lawrence, Expert Report, p. 7.

⁸⁷ Dr Rebecca Lawrence, Expert Report, p. 7.

⁸⁸ Dr Rebecca Lawrence, Expert Report, pp. 7-8.

⁸⁹ Dr Rebecca Lawrence, Expert Report, p. 8.

⁹⁰ Dr Rebecca Lawrence, Expert Report, p. 8.

⁹¹ Dr Rebecca Lawrence, Expert Report, p. 8.

⁹² Dr Rebecca Lawrence, Expert Report, p. 9.

- j. there is no analysis at all of the consequences of not proceeding with the mine (i.e. the no-go scenario);⁹⁴
- k. several social impact issues identified by the community are simply concluded with a recommendation for further research or suggestion that monitoring or management take place;⁹⁵
- l. there is no transparency as to why social impacts have been accorded a specific impact level (i.e. significance) of low, medium or high;⁹⁶ and
- m. the proposed mitigation measures and recommendations are primarily aspirational and are not demonstratively achievable or enforceable. Further, they are neither appropriate nor proportionate.⁹⁷

79. GG Inc. adopts and relies upon Dr Lawrence's report, the findings in which are consistent with the findings of Dr Askland.

80. During her evidence, Dr Lawrence also questions the reliance by GRL on the social benefits of the Project that will flow from 75% "local" employment, given the definition adopted by GRL is much wider than just the Gloucester township:⁹⁸

WITNESS LAWRENCE: I'm referring to anybody who does - who already resides or who would move to the Gloucester local area, which I define as the township. Anybody who shops there, whose children go to Gloucester, not somebody living in Stroud, Dungog, Taree or Newcastle. And can I also just make the point that in some of the statistics that were, were being discussed as I understand it, regarding the Stratford Mine, that the statistics, the increase in statistics and employment at that mine, as in local, my understanding is that those increases regard the way in which the mining company over the years actually extended their definition of local. So, in the earlier years, they were

⁹³ Dr Rebecca Lawrence, Expert Report, p. 9.

⁹⁴ Dr Rebecca Lawrence, Expert Report, p. 9.

⁹⁵ Dr Rebecca Lawrence, Expert Report, p. 9.

⁹⁶ Dr Rebecca Lawrence, Expert Report, p. 9.

⁹⁷ Dr Rebecca Lawrence, Expert Report, p. 10.

⁹⁸ Transcript, 24/08/18, p769.

defining local as Gloucester, then they added Stroud, then they also added Dungog.

Professor Ryan

81. Professor Ryan's expert report relies heavily on the "targeted discussions" she conducted with members of the Gloucester community. She explains:⁹⁹

... In light of the high number of submissions opposing the Project, it was necessary to seek an understanding of the views of those who are in support and see positive benefits to the Project proceedings. The themes which emerged as a result of these discussions are set out below, the majority of which are in support of the project.

82. Professor Ryan's targeted focus group sessions were "an open invitation organised GRL's legal representatives", which is concerning in that it may have given rise to an actual or perceived conflict of interest, even if "no one from the community was excluded from attending".¹⁰⁰ She makes the pertinent concession that the interviewees for those targeted discussions were "largely self-selected as being in support of the Project."¹⁰¹ Consequently, the data collected by Professor Ryan through her targeted discussions are infected with self-selection bias. The views expressed by her targeted discussion interviewees are, with few exceptions, homogenous. Accordingly, Professor Ryan's conclusions from her targeted discussions should not be preferred.

83. In contrast, the interviews that Dr Askland conducted were with diverse members of the Gloucester community, including members of an array of community and business groups. They included individuals who variously oppose, support, or have neutral views of, the Project.¹⁰² As a result, Dr Askland's expert report can be considered more balanced than Professor Ryan's expert report and should be preferred.

⁹⁹ Prof Roberta Ryan, Statement of Evidence, p. 43.

¹⁰⁰ Prof Roberta Ryan, Statement of Evidence, p. 43.

¹⁰¹ Prof Roberta Ryan, Statement of Evidence, p. 43.

¹⁰² Dr Hedda Askland, Expert Report, [73].

84. Professor Ryan's telephone survey is highly problematic and is not credible for the following reasons, *inter alia*:

- a. There is no evidence that Narrabri, Kandos and Denman are "comparable to Gloucester", and the inclusion of these localities in the telephone survey is baffling. These localities have different population sizes¹⁰³ and are located in different environmental, social and economic contexts to Gloucester (e.g. it appears from an initial desktop review that the nearest mine to Narrabri is underground and 28 km away).¹⁰⁴ Further, no consideration is given to whether these areas have comparable landscape, scenic or community characters or values. The inclusion of Narrabri, Kandos and Denman cannot say anything about the sense of place and social impacts particular to Gloucester;
- b. The telephone survey failed to mention the Project in sufficiently specific terms¹⁰⁵ and the use of the word "area" in the questions is unsatisfactory and ambiguous;¹⁰⁶
- c. Question Q8 – "*Generally*, do you think a proposal to expand mining activities in the area for twenty years would have an impact on you and how you feel about Gloucester" – is not sufficiently specific about the Project and could conceivably be interpreted as only relating to the Modification or to the Duralie mine, for example;¹⁰⁷

¹⁰³ Prof Roberta Ryan, Statement of Evidence, p. 56.

¹⁰⁴ The *underground* coal mine in Narrabri is 28km south of the Gunnedah Basin town of Narrabri (<http://mininglink.com.au/site/narrabri>). Further information on mine distances can be found at <http://www.narrabri.nsw.gov.au/files/uploaded/file/Our%20Community/Economic%20Development/Mining%20and%20Gas%20Position%20Paper.pdf> at p. 34. Kandos is 2.8km from the mine as the crow flies (<http://www.bonzle.com/c/a?a=p&p=299221&cmd=sp>), however it appears from an initial desktop review that the underground mine closed in 2014 and the open cut coal mine closed in 2015. Mangoola open cut mine is 10km north of Denman (<http://www.mangoolamine.com.au/en/Pages/home.aspx>).

¹⁰⁵ Prof Roberta Ryan, Statement of Evidence, p. 115.

¹⁰⁶ Prof Roberta Ryan, Statement of Evidence, p. 118.

¹⁰⁷ Transcript 24/08/2018, p. 772.

- d. Question Q9, concerning “the expansion of mining activities in the area”, is not sufficiently specific about the Project and could conceivably be interpreted as only relating to the Modification or to the Duralie mine, or mining in a broader “area”; and
- e. The result that 53% of the relevant respondents felt the impact of the “proposal to expand mining activities in the area for twenty years” would be either somewhat negative or almost all negative, and the result that 54% of the relevant respondents indicated that were extremely supportive, very supportive or somewhat supportive of the expansion of mining activities, is difficult to reconcile and, in light of the ambiguities outlined above, points to survey error.

85. It is notable that there is a major divergence between the telephone survey results and the results of all other surveys conducted previously. The consistent findings of all previous survey results (including in the SIA) is that a majority do not support the Project.¹⁰⁸ Together with the flaws outlined above in Professor Ryan’s telephone survey methodology, this points to Professor Ryan’s telephone survey results not being credible. Accordingly, her conclusions based on the telephone survey should not be preferred.

86. Professor Ryan’s expert report is surprising in its lack of engagement with the academic literature concerning the social impacts of mining. Importantly, she does not consider solastalgia, place-based distress and emotional connections to place.¹⁰⁹ She does not consider the lived experience of members of the Gloucester community as it relates to amenity, noise, dust, lighting and pollution. She also fails to deal with issues concerning distributive equity, such as the social impact on Aboriginal people (who comprise approximately 9.5 per cent of the community)¹¹⁰ or the gender impacts

¹⁰⁸ Joint Expert Report, Social Impacts, pp. 48-49 per Dr Rebecca Lawrence and Dr Hedda Askland.

¹⁰⁹ Prof Roberta Ryan, Statement of Evidence, p. 40.

¹¹⁰ Prof Roberta Ryan, Statement of Evidence, p. 27.

or masculinisation of the town.¹¹¹ In cross-examination, she conceded that the SIA fails to deal with the Aboriginal social impact.¹¹²

87. Instead, Professor Ryan places emphasis on technical measures that rely on the assumption that the expert reports filed by GRL (e.g. the reports filed by Mr Wyatt and Mr Brown) are correct,¹¹³ despite the existence of alternative expert advice (e.g. the reports filed by Mr Moir and Mr Rajaratnam) and the best case scenarios provided by GRL (e.g. 75% local employment) are correct.¹¹⁴ She cites with approval the mitigation measures deployed at the Northparkes Mine, despite the significantly different context in which that mine operates (e.g. underground, gold, not coal and distant from Parkes, and residential communities).¹¹⁵ Consequently, she does not address the social impact of the mitigation measures themselves.

88. Importantly, during cross-examination, Professor Ryan made a number of concessions which now clarify the evidence she gave in her expert report and the joint report. During cross-examination, Professor Ryan gave evidence that should the Court find that the mine will have adverse impacts on the rural character of Gloucester and the visual amenity of residents, that this would also amount to a negative social impact:¹¹⁶

WHITE: Would you agree Professor Ryan that were the Court to conclude at the end of this case that the project would have an adverse impact on the rural character of the land south of Gloucester, that would be a negative social impact?

WITNESS R RYAN: I would.

...

¹¹¹ Joint Expert Report, Social Impacts, pp. 44-45 per Dr Lawrence and Dr Askland.

¹¹² Transcript 24/08/2018, p. 752.

¹¹³ Prof Roberta Ryan, Statement of Evidence, Executive Summary.

¹¹⁴ Prof Roberta Ryan, Statement of Evidence, p. 71.

¹¹⁵ Joint Expert Report, Social Impacts, p. 49 per Dr Rebecca Lawrence.

¹¹⁶ Transcript, 24/08/18, pp. 720-721.

WHITE: Professor Ryan, were the Court to conclude that the project would have an adverse visual impact on residents living in and around Gloucester that would amount equally to an adverse social impact?

WITNESS R RYAN: That's correct.

89. Professor Ryan also agreed in cross-examination that residents' concerns about a change in landscape are relevant to an assessment of the social impacts of the mine:¹¹⁷

WHITE: ... Would you agree with this proposition that concerns expressed by the community, concerning the potential damage to what they perceive as important or treasured landscapes are relevant to an assessment of the social impacts of the project?

WITNESS R RYAN: I do.

90. Similarly, Professor Ryan clarified that noise and air quality impacts are in fact relevant to an assessment of social impacts, in terms of both peoples' perceptions as well as materiality of those impacts:¹¹⁸

WHITE: Do you consider that noise and air quality impacts from an open-cut mine on a community are relevant to an assessment of social impacts?

WITNESS R RYAN: Yes.

WHITE: Can I just ask you then to go to your report, please, your primary report at page 15? This is your summary comment, is it not, to one of the contentions which has been raised, namely negative impacts on residents and the community, including noise, dust and air quality impact. You say there that, "As an expert in social planning and not noise, dust and air quality, I cannot

¹¹⁷ Transcript, 24/08/18, p. 724.

¹¹⁸ Transcript, 24/08/18, p. 727.

provide an opinion on the impacts of noise, dust and air quality. These are not matters for consideration for social impact."

...

WHITE: I think you're now saying that, you've agreed with me, that they are matters for consideration of social impact?

WITNESS R RYAN: Both people's concern about them in terms of perceived impacts, as well as the materiality of those impacts on affected residents.

91. Professor Ryan also agreed that were the Court to find that the mine will create intrusive noise for residents, this would be an adverse social impact that will need to be taken into account by the Court:

WHITE: Background noise is what's there now and is considered likely to distress or interfere with those who can hear it. So, that's a definition that I'm going to put to his Honour as to what intrusive noise means. Based on that assumption, would you agree, would you not, that if the residents were to experience intrusive noise, as I've defined it, that would be an adverse social impact of the development on those residents that would need to be taken into account?

WITNESS R RYAN: I would.

92. With respect to air quality and the community's perceptions of the health risks associated with dust from the mine, Professor Ryan stated that these are factors also relevant to the social impact:¹¹⁹

WHITE: You would accept as well, would you not, that residents within the community, Professor Ryan, have expressed concerns about the impacts of dust from the mine on their quality of life and their health.

¹¹⁹ Transcript, 24/08/18, p. 730.

WITNESS R RYAN: Yes, I have expressed those concerns.

WHITE: You no doubt read some of the submissions from local residents about concern about dust on roofs, dust in water tanks, I think Ms Evans who spoke said that she got coal dust in Stratford on a statue in her garden. And people express concerns about not being able to put their washing out because of the fear of dust. People also express concern about the impacts of dust on their health, do they not? Again, you would accept, would you not, that this is a concern which is relevant to the assessment of social impact?

WITNESS R RYAN: People's expressed concerns are relevant to the social impact.

93. However, Professor Ryan portrays the Gloucester community as having a demographic profile that is “not ideal”.¹²⁰ According to Professor Ryan, the town is in decline.¹²¹ The Project is touted as the solution that will make it a more vibrant place and fix the demographic profile.¹²² She quotes interviewees who say that tourism is “asleep” and “non-existent”.¹²³

94. There are, however, no explicit criteria in Professor Ryan’s report as to what is an “ideal” community profile, or how such criteria can be formulated. An ageing population is consistent with trends for Australia as a whole, as well as the north-east coast of NSW.¹²⁴ Out-migration of young people aged 18-24 in rural and regional areas in NSW is not specific to Gloucester and cannot be attributed to a lack of mining jobs.¹²⁵ It is unlikely that unemployment issues would be solved by the

¹²⁰ Prof Roberta Ryan, Statement of Evidence, p. 68.

¹²¹ Prof Roberta Ryan, Statement of Evidence, p. 55.

¹²² Prof Roberta Ryan, Statement of Evidence, p. 88.

¹²³ Prof Roberta Ryan, Statement of Evidence, p. 48.

¹²⁴ Joint Expert Report, Social Impacts, p. 13 per Dr Rebecca Lawrence.

¹²⁵ Joint Expert Report, Social Impacts, p. 13 per Dr Rebecca Lawrence.

Project.¹²⁶ Most young people (almost 60%) leave Gloucester for education reasons, which would be unlikely to change if the Project were approved.¹²⁷ There is no analysis in the SIA or Professor Ryan's report of alternative "no-Project" scenarios involving sustainable economic futures such as tourism or agriculture.¹²⁸ Indeed, Dr Askland finds that a shared objective of those that support the Project and those that oppose the Project is "a sustainable economic platform that will see the community prosper".¹²⁹

95. Central to Professor Ryan's report is a narrative of so-called "tree-changers" (who apparently do not support the Project) versus long-term generational residents of Gloucester (who apparently support the Project).¹³⁰ This echoes the content of the affidavits filed in support of the Project by GRL.¹³¹ Professor Ryan opines that the community is not "enamoured by its 'tree change' qualities".¹³²

96. Professor Ryan's portrayal of a cleavage between "tree-changers" and generational residents must be rejected as false. Many long-term and generational residents oppose the Project.¹³³ For example, Wendy Fraser spoke about her family's long history in the Gloucester community and how the Project will have adverse social impacts for their dairy farm and livelihoods. Ray Jacobs, a young local builder, has lived in Gloucester all his life and has recently taken over his father's building company. He spoke of the negative impacts of coal seam gas and coal mining projects on his

¹²⁶ Joint Expert Report, Social Impacts, p. 13 per Dr Rebecca Lawrence.

¹²⁷ Joint Expert Report, Social Impacts, p. 15 per Dr Hedda Askland.

¹²⁸ Joint Expert Report, Social Impacts, p. 14 per Dr Rebecca Lawrence.

¹²⁹ Dr Hedda Askland, Expert Report, [75].

¹³⁰ Prof Roberta Ryan, Statement of Evidence, p. 62.

¹³¹ For example, see Affidavit of William John Williams. It is noted that the number of lay affidavits filed in support of the Project are outweighed by the number of lay objectors.

¹³² Prof Roberta Ryan, Statement of Evidence, p. 11.

¹³³ See, for example, written submission of Karen O'Brien (lived in Gloucester for 29 years), written submission of Claire Reynolds (lived in Gloucester nearly 30 years), written submission of Suzanne Hedditch (lived in Gloucester for 40 years), written submission of Vicki Coombes (lived in Gloucester since 1981), written submission of Ed Robinson (lived in Gloucester for over 20 years).

clientele. Janine Phillips, speaking on behalf of Ken Eveleigh, spoke of the ancestral connection the Aboriginal people have had and continue to have with the Gloucester region, and the destructive social impact the Project would have on Aboriginal heritage and cultural values.

97. Professor Ryan's targeted discussion interviewees refer to the "tree-changers" disparagingly:¹³⁴

Common points raised in relation to this group of people were that the retirees have moved to Gloucester from Sydney or from the Central Coast and they want a peaceful, rural life. However, they do not contribute to the community. They do not employ people and they do not need to be employed. These are self-funded retirees who do not want the mine but they have their own money.

98. Professor Ryan concludes:¹³⁵

The cohesiveness of the community is weak with different aspirations and fears for the future expressed by those who have lived within the Gloucester area for many years, as opposed to those who have more recently moved to the area.

99. The proposition that tree-changers do not contribute to the community must be rejected. There is ample reference in the written and oral submissions of people from all generations who have moved to Gloucester to their valuable contribution to the Gloucester community. This contribution has taken many forms, including self-employment,¹³⁶ businesses,¹³⁷ tourism ventures,¹³⁸ church work,¹³⁹ volunteering,¹⁴⁰ participation in sports,¹⁴¹ and other community-minded pursuits.¹⁴² As to older

¹³⁴ Prof Roberta Ryan, Statement of Evidence, p. 53.

¹³⁵ Prof Roberta Ryan, Statement of Evidence, p. 75.

¹³⁶ See, for example, written submission of Brad Bowden.

¹³⁷ See, for example, written submission of John Dugas (owns Gloucester River Wines)

¹³⁸ See, for example, written submission of Chris Vavasour (runs bed and breakfast)

¹³⁹ See, for example, written submission of Sarah Soupidis.

¹⁴⁰ See, for example, written submission of Carol Bennett and written submission of Thomas Davey.

¹⁴¹ See, for example, written submission of Rob Seale.

residents, they often bring significant savings and superannuation to Gloucester, encourage their families to visit them (and therefore spend time and money in the town),¹⁴³ and enhance the productive capacity of their properties by investing in upgraded facilities or pursuing homestay-style ventures.¹⁴⁴

100. The evidence is substantial that a threat to the sense of place or community experienced by residents and the community of Gloucester by the Project and the Modification will lead to a decrease in the attractiveness of Gloucester as a destination for relocation. Further, there is significant evidence that approval of the Project and the Modification will result in individuals and families leaving the Gloucester community.¹⁴⁵ Indeed, Professor Ryan conceded in cross-examination that people planning to move away from Gloucester because of a perception of negative health impacts, as well as impacts of the mine on social cohesion, were factors relevant to an assessment of social impacts of the mine, and would need to be part of the balancing exercise conducted by the Court.¹⁴⁶

101. All parties accept that the mine proposal itself has created division within the community. As Dr Askland states:¹⁴⁷

Opposition to the mine is not limited to new residents and treechangers. The myth about who opposes and supports the mine has unsettled the community. It has posed questions about who belongs and who has a right to speak on behalf of the community, subsequently leading to experiences of exclusion and rejection. This has been hurtful for long-term residents who have lived in Gloucester their whole adult life, who have contributed significantly to local community and whose children have grown up in the area. Suspicion and

¹⁴² See, for example, written submission of Rob Seale.

¹⁴³ See, for example, the written submission of Jeanette Spagnolo and Catherine Clarke, pp. 114-115, Exhibit 5A.

¹⁴⁴ See, for example, the written submission of Chris Vavasour, pp. 117-120, Exhibit 5A.

¹⁴⁵ See, for example, written submissions of Brad Bowden, Vicki Coombes, Thomas Davey and Alan and Frances Writer.

¹⁴⁶ Transcript, Friday, 24 August 2018, pp732-736.

¹⁴⁷ Dr Hedda Askland, Expert Report, pp. 26-27.

hostile attitudes towards people of opposing opinions appear to be widespread.

102. GRL asserts in oral closing that “to the extent that there is a social impact in this appeal, it’s a social impact that already exists,”¹⁴⁸ being social division caused by the mine proposal itself. GRL goes on to claim that the mine proposal has been in existence since 2013 (5 years) rather than the 10 years referred to by the resident objectors, and that prolonged social division is simply a result of a robust community consultation and assessment process, which has culminated in these proceedings, and that such consultation in itself ought to be regarded as a positive social effect.¹⁴⁹ There are a number of things that should be said about that submission.

103. First, it is incorrect to state that the community has only been aware of plans for the Rocky Hill Coal Mine since 2013, or that community concerns over the mine were confused with concerns about AGL’s proposed coal seam gas development. The community was in fact informed of the proposal for the Rocky Hill mine ten years ago, in 2008. As Helen Evans states in her submission:

On 22nd December 2008, the Council summoned residents of Forbesdale Close, Fairbairns Road and Moonlight Crt. to a meeting and dropped the Rocky Hill bombshell.

I wasn’t the only “new” resident whose solicitor had not informed them on purchase. I returned home in a state of shock and despondency. I cried frequently that Christmas and many times since.

104. Di Montague also gives evidence in her submission that a large number of residents have been actively opposing the mine since 2008:

In December 2008 a meeting was called at the council to alert residents to the fact that a mining company was buying up properties in the Fairbairns Lane area. There was general unease because the company was using different names for purchase, so a clear picture of the sales was not available. In 2009 800 local residents attended a meeting and unanimously voted to be proactive

¹⁴⁸ Transcript, 27/08/2018, p. 850.

¹⁴⁹ Transcript, 27/08/2018, pp. 850-851.

in having the Gloucester Resources Limited, three exploration licences cancelled. They decided to form a group, Gloucester Residents in Partnership. I was President of that group from late 2009 until 2015 when it was joined with Groundswell Gloucester. GRIP had over 300 local members.

105. Second, the objector evidence is that GRL has impacted the community not just by lodging a development application and going through the statutory approvals process, but through the process of acquiring properties. Di Montague talks of residents who used to live along Fairbairns Road, and states in her submission:

Of those friends, not one now lives on Fairbairns Road, they have all sold to GRL. One of the conditions of the sale was the mandatory signing of a non-disclosure form. They were not to speak out against GRL. GRL claimed they were willing sellers, so why the need to shut them up. To this day I know of at least three families who cannot drive down Fairbairns because they become too upset by the experience of having to sell the homes that they loved. They are still traumatised by the loss of a thriving community of neighbours and friends.

I approached some of these friends to speak out at this Merits Appeal but all refused because they stated they were too scared that GRL would take them to court. The approval of this mine will only add to this trauma.

106. Third, should this mine be approved, the evidence of the experts is that the social impacts will increase and continue throughout the life of the mine (a further 21 years). In addition, under standard conditions of approval relating to lapsing, GRL would be allowed a further five years to commence the development. Together, the community faces a minimum of 31 years suffering the existing and continued “social division” that GRL concedes is caused by both the mine proposal, and the mine itself, without factoring in additional years that might be occasioned by a delayed commencement, periods of suspension of mining operations when it is under “care and maintenance”, or the mine becoming a stranded asset, as per the evidence of Mr Buckley.¹⁵⁰ Rather than justify approval, that is a significant factor in support of refusal, in order to allow

¹⁵⁰ Tim Buckley, Expert Report, [176], where Mr Buckley provides an example of a Queensland mine under “care and maintenance” since 2015, and [188] where Mr Buckley concludes that there is a risk that the Project will become a stranded asset.

the community to recover from the division caused by 10 years of the Rocky Hill mine proposal.

107. Finally, while it is a feature of environmental planning laws in NSW that objectors get a say in proposals that are imposed on their communities, like the Project, and are entitled to be heard in merits appeal, that is irrelevant to the task that is now before the Court – determining whether or not to approve the Project. The community is exercising statutory rights to respond to a proposal for an open cut coal mine imposed on them by GRL. They are participating, in good faith, in a process that depends on their participation. Section 4.15 of the EPA Act provides that the Court must consider the issues raised by the objectors in written and oral submissions, and GG Inc. as a party properly joined to these proceedings in the public interest must also be heard. That means, of course, that not only must the objectors and the Second Respondent be heard, but their concerns must be given proper, genuine and realistic consideration in deciding whether or not to approve the Project. Such statutory rights and obligations are not factors to be considered in favour of or against approval, they are simply statutory rights and obligations.

Lay objector evidence

108. The lay objector evidence, both written and oral, supports GG Inc.'s contention that the Project and the Modification will have a significant social impact on residents and the community of Gloucester, contrary to the public interest and the principles of ESD.

109. Below is a summary of the evidence given by the lay objectors who spoke at the site visits and at the Gloucester Soldiers Club.

Ed and Tina Robinson, 124 Jacks Road, Gloucester:

110. Ed and Tina Robinson are cattle farmers who chose to move to Gloucester so they could combine work and lifestyle, with a view to ensuring an adequate retirement income from their land. Like many other lay objectors, when they chose to live in Gloucester, the setting of the valley was important: "The view was really important. We have the Mograni to the left and the Bucketts over there to the right and the beautiful valley in-between. In summer, our front door which is over on the left-hand

side there is left open day and night and we get a bit of the afternoon sea breezes in from that.”

111. Ed captured the views of many lay objectors when dealing with the prospect of a mine on their doorstep: “My wife and I have to live here 24/7. We don't have the ability to leave at the end of the day. We live, work and socialise in this house and land. We have no escape from the Rocky Hill open cut coal mine. We will be disturbed night and day by this mine.”
112. These concerns have been confirmed by both the visual and the social impact expert evidence, with Mr Moir opining that these impacts will not ameliorated by the proposal to install so called amenity barriers; rather, these barriers themselves are a visual and social impact.¹⁵¹ As expressed by Ed Robinson: “The amenity barriers or visibility or over-burden barriers, whatever you want to call them, will be a constant reminder to our lost views. To say that these barriers - we won't see these barriers after they're vegetated is at best a whimsical dream. They'll be stuck in our face.”
113. There is also a general community concern that this project is just the first stage of a larger project that will have even greater social impacts. As demonstrated by the information provided by Ed Robinson: “GRL have an exploration EIS for stage 2 which we think will run from the red flag across this dairy farm here up to Waukivory Road. There's REFs of that available from 2011.”
114. Other tourism activities at risk include those associated with the air field. As explained by Ed Robinson: “We have skydiving and parachuting, we have radio controlled model aircraft and some competitions with them and we've even had aerobatic pilots up here practising... The site that will be constructed around the mine would impinge on the required glide slope of the existing runway that will require a significant realignment of that runway, and that runway will be out of service for a fair amount of time to get that done. The visual impacts of it I think will not allow recreational people to use that airstrip too much because it'll be - there'll be over the top of a coal mine which I don't think they want to be and noise and dust will be a very definite problem for them.” Although dismissed by GRL as a “landing strip on private property” and that “if it's a private landing strip, it can be shut down at any

¹⁵¹ Joint Expert Report, Visual Impact, pp. 5-11.

time”,¹⁵² the air field is in fact a valuable community resource. As explained by Ed Robinson: “Commercially, National Parks and Wildlife Service use the airport for training several times a year. Rural Fire Services use the airstrip in bushfire seasons and the electricity suppliers are monitored through their helicopters based out of that airport. This strip is used also for flying from other airstrips where they do nearby outstation landings on these rural airstrips”.

Derek and Di Bardwell, 86 Jacks Road, Gloucester:

115. Derek and Di Bardwell purchased their property on Jacks Road in 2002 and have resided there since 2003. Moving to Gloucester was their dream – the ability to own a bit of land and keep horses with an expectation that they would be able to retain the value of the property for future and sell it to ensure a comfortable retirement. Like many other local residents, they made enquiries about the mining before they purchased and they looked at the zoning of their land and the surrounding area. It was important to them “that there was no thought then of the existing mining facilities coming any further north. And the zoning of our property is environment protection scenic, I don't know whether that's the accurate description but we also felt security with our investment by that zoning.”

Wendy Fraser, 4116 Bucketts Way South, Forbesdale:

116. Wendy Fraser comes from a generational farming family. Her parents and grandparents developed the farm she currently owns and manages. She and her family run 220 dairy cattle, supplying milk to Sydney and Brisbane milk markets and employing 7 staff. Wendy's sense of identity is very strongly tied to her land: “(t)here is a wonderful family history here and we feel immense pride and responsibility having the opportunity to continue improving the farm and care for it, just as the generations did before us.” She is one of many lay objectors in the community who fear for their family's health and future if the mine is approved and this has made them think about moving away from Gloucester. This is a source of ongoing stress for Mrs Fraser and her family: “If we were to sell the farm we'd be leaving our job and we'd be leaving our home. We'd be leaving a family legacy, and we'd have failed the

¹⁵² Transcript 21/8/2018, p. 348.

task of passing the family farm onto the next generation. We've invested enormously in so many ways on this farm. To leave it or sell it would be heart-breaking".

Karen O'Brien (Hillview Herb Farm), 5 Fairbairns Road, Forbesdale:

117. Karen O'Brien, owner of Hillview Herb Farm, is one of the local tourism operators who is concerned about the impact of the mine on her business, her property values and her family. Ms O'Brien and her family has owned Hillview Herb Farm for 29 years. She produces organic herbs commercially, makes value-added products and hosts visitors to the farm, from all around Australia. She can host up to 100 people at a time and in 2017 hosted 64 tourist buses with 2,449 visitors at the property. Her farm also sells local products from other local farms and all produce for catering is purchased from local shops in Gloucester. Her concern for her business was captured by her question to the Court: "Who will want to visit, consume produce, buy plants from a garden in such close proximity to an open cut coal mine? The stress these questions have put on our family over the years is enormous, and it must be stopped." An important aspect of her family business is the ability for her son, who is a chronic asthmatic, to work there. Ms O'Brien is concerned about his ability to continuing working in the family business if the mine is approved.

118. The O'Briens have long wanted to invest and grow the business (such as establishing accommodation facilities) but they have chosen not to make further investments because of the uncertainty of their future in the area. This concern has "put our family business into what we call 'limbo state'". Every time another proposal is put forward, it stops plans to grow and build accommodation on property."

Ian Jackson, 85 Fairbairns Rd, Forbesdale:

119. Ian Jackson is one of the property owners living closest to the mine site. In his words: "The whole enjoyment of buying this property in 1998 to raise our children in a beautiful peaceful environment will be destroyed." "How can we expect to live a normal life in front of a mine, with the blasting the dust and operating hours of 7 am to 10 at night? How can we expect to live a normal life with all the impacts of the construction phase, with no redress to be required during this period?" In his view: "The whole concept of having a mine this close to houses makes no sense. It's the dust, it's the scarping of metal on the ground, it's the dropping of coal and over into trucks, it's the blasting, it's the lights of the night-time operations. My family will be

prisoners in our own home, as will our neighbours. Everything my wife and I have worked for will be worth nothing. Same with our neighbours. Everything everyone has worked for within Forbesdale will be for nothing”.

Anita Jackson, 85 Fairbairns Rd, Forbesdale:

120. Anita Jackson, the 13 year old daughter of Ian and Susanna Jackson, lives at home with her 10 year old sister. She expressed her concerns about the mine: “Our bedrooms look directly onto and will be impacted by the Rocky Hill mine. I won’t be able to ride my bike down a beautiful green valley, but instead alongside a polluting maze which will be the Rocky Hill mine.” But her concern was not just for her family home and immediate environment, Anita also recognised the larger environmental concerns raised by the mine and the impact that approval of the project will have on climate change.

Helen Evans, 8 Forbesdale Close, Forbesdale:

121. While visiting the Jacksons’ residence, the Court also heard from a resident of Forbesdale estate, Helen Evans, 80 years old, who has lived in the area for 12 years: “Now I live with the fear and the terror as I am a COAD sufferer, that’s chronic obstructive airways disease, and I live with that terror of a coal mine 987 metres from my back door. It’s just not good enough. Most of us here are already experiencing coal dust on our rooves, on our outdoor furniture and our outdoor machinery and that’s coming from Stratford way down there. If you go past my front yard you will see a life size concrete statue of a lady and she is black, absolutely black head to toe, but the back of her is as pristine as the day I bought her 30 years ago.”

122. The mine also raises significant concerns for Helen’s financial future: “I put every penny I owned into that home and that building, with the aim in mind that when it comes my turn to seek quality aged care I had an investment. That investment, with the spectre of Rocky Hill mine has now had \$200,000 cut off its value”. But like many residents, it is not just her future that concerns Helen: “The future for Forbesdale residents, if the mine goes ahead, our future is bleak. The future for Gloucester is very worrying, because Gloucester is primarily a tourist town, and tourist don’t want to come where there’s mining. They’ve got better things to do with their time. And the future for our aquifers is a great worry.”

Kim and Kevin Arney, 2 Moonlight Circuit, Thunderbolts Estate:

123. Kevin Arney, a local resident of the Thunderbolts Estate, spoke on behalf of his wife, Kim, and himself. Mr and Mrs Arney are an example of “tree-changers” who chose to retire to Gloucester, after their busy working lives in Sydney, to escape the traffic congestion, noise and air pollution of Sydney. The benefits to them of this move have been dramatic. Prior to moving to Gloucester, Mrs Arney suffered from bronchitis which required the use of a medical puffer and Mr Arney had a long history of sinusitis, which required surgery. Since moving to Gloucester their health has improved and they now live in good health without bronchial issues. In their view, the mine is just too close to town. They asked the Court: “Please help us to keep our waters clean and flowing, keep our air quality dust and pollution free, keep our wildlife safe and our cattle thrive. Keep our Gloucester shops open for trade, keep our roads safe from potholes and heavy vehicle traffic.”

Robert Seale, 30 Mahogany Drive, Avon River Estate:

124. Robert Seale and his wife Mel are a young couple who are both local teachers and are heavily involved in the local community. Robert explains in his written submission: “While both of us have been presidents of the Preschool, I have been the president of the Gymnastics club, secretary of the Rugby club, on the Tri Challenge Committee and an active member of the SES. I have played rugby union, league, squash, touch football, hockey and I push bike and adventure motor bike ride with local groups. I enjoy teaching and complement my teaching load with extracurricular activities such as Duke of Ed Co-ordinator, Tri Challenge mentor and coach for various sporting teams.”

125. Rob and Mel chose to raise their family in Gloucester because of the rivers and the rainfall. As someone who grew up in rural NSW, Rob understands the importance of healthy, reliable waterways: “The reality is, this development will influence the water quality well after the financial benefits, the dust and the noise have gone. No amount of rehabilitation can reverse the structural impact it will have on the catchment.”

126. If the mine goes ahead Rob and his family are likely to leave the Gloucester area: “The reason I mention these is despite all them, we will leave Gloucester should this mine go ahead”. This would not only mean they leave the home they built themselves and the river that they love; it would be a significant loss to the community as the

school loses two teachers and they take their extensive volunteer involvement elsewhere.

Abbey Seale, 30 Mahogany Drive, Avon River Estate:

127. Abbey Seale, Rob's and Mel's daughter, also expressed her concerns about the mine. In her view: "We should be spending money on farms that are eco-friendly, rather than the mine. We could get money out of that, because of renewable energy." She is concerned not only for herself but for future children in Gloucester: "If I grow up here, and I have children of my own, they won't be able to go outside and enjoy the air because the air will all be polluted, and they won't be able to swim, and they wouldn't be able to have the life that they deserve".

Naomi Kilby, 126 Thunderbolts Way, Gloucester:

128. Naomi Kilby is the Managing Director of the Barrington Outdoor Adventure Centre, an important tourism and education company in region. As Ms Kilby expressed: "Scenic nature is our business. So any activity that threatens the scenic nature of our region also threatens our business, our livelihood, and the livelihoods of our staff." Ms Kilby has worked hard to grow her business which contributes significantly towards the local economy, "attracting over six and a half thousand people to the region annually. We employ over 50 people each year, some who live locally and others that live in Gloucester for the duration of their contract, paying rent, shopping locally and generally supporting the local economy. As a family-owned company with a long history in Gloucester, we use local suppliers and our profits are reinvested in the business, with ongoing economic benefits to the local area."

129. Ms Kilby sees the Project as a significant threat to her business's ongoing viability. This view is based on her conversations with her clients: "We have spoken to our clientele and the overwhelming reason that they choose this reason is for its natural beauty, clean air, clean water and for the peace and quiet. A ten per cent drop in customers will make my business marginal. A 20 per cent drop will send me out of business." In her view, "If you factor in the impact of the destruction of Gloucester's clean green image by having an open cut coal mine on your doorstep, then I believe the impact of Rocky Hill coal mine will be much greater than 20%".

130. However, without the Project, Ms Kilby believes that the future for the tourism industry in the Gloucester region is strong: “Midcoast Council has adopted our first ever destination management plan... The plan identifies the Midcoast competitive advantage as a leading provider of nature and adventure-based tourism. ... the potential to grow the Midcoast tourism industry to over 1.55 billion annually by 2030, an increase of more than 270 per cent from its current value of 570 million. This is only achievable by making use of all the exceptional natural assets within Mid-Coast.”

Dr Garry Lyford, 2 Queen St, Gloucester:

131. Dr Garry Lyford has been involved in the community of Gloucester as a GP for 32 years. Dr Lyford strongly opposes the Project “as it will have deleterious health impacts on the population of Gloucester”. In his view, “This mine will affect our health in four ways, namely through reduction in air quality, the effects of noise and light, through mental health effects, and lastly and very dangerously through the mine’s contribution to global climate change”.

132. His experience working as a GP in the area has led him to conclude that there is a direct relationship between local air quality and the health of his patients. It is his view that if the Rocky Hill mine is approved, previous improvements to the air quality in the area will be lost and that “exposes the town population to higher incidences of flares of asthma and chronic obstructed pulmonary disease ... it is common sense that exposure to this dust from a mine so close to our schools, pre-schools, our hospitals will have adverse effects on young children and others, who breathe this air continuously, particularly through childhood”.

133. His concerns in relation to noise and light arise from his existing experiences: “During my clinical practice it has been common to hear patients living in the vicinity of Stratford mine complain of sleep interruption by mine noise or being disturbed by the light of mine operations, particularly truck movements. They mention particularly the noise of reversing trucks or the noise of train motors or truck movements... The intrusion of light and noise into what had previously been a quiet environment will result in high levels of mental illness. I have seen this decline in mental health in those living near mine sites at Duralie and Stratford during all phases of production. I've seen many cases of depression and anxiety as people struggle with noise, sleep

disturbance, loss of life goals and reduction in property values as the mine encroaches upon them.”

Janine Phillips, speaking for Kim and Ken Eveleigh and Michael Manikas, representing the Cook Family:

134. The Court heard from two people speaking on behalf of the local Aboriginal community who expressed significant concerns regarding the Project’s impacts on Aboriginal cultural heritage – both physical objects and culture. In the submission from Janine Phillips speaking for Kim and Ken Eveleigh, the importance of the area – of the Mograni the Bucketts and valley in between – should not be understated. For women: “The valley is a significant sacred place, as the valley is our ancestors’ daughters’ birthing and naming area ... this is the area where the women’s Bora rings, initiations and smoking ceremonies took place, and totems were given”. In the words of Ken Eveleigh: “The Government has a duty of care. It is to protect endangered species, the life of flora and fauna. This also includes the Aboriginal culture, and the land that they belong to ... the Government has an obligation to protect our significant sacred culture”. “We plead to you that you join us to come together as we must protect this land for the future so the destruction will not happen again to our spiritual valley that we now share. There were fences in the past to stop us from going to our significant sacred sites. We could still sit on the hills and see our valley and know the spiritual connection is still there. Now the mining giants wish to destroy the land, to uproot our valley, to turn it into dark satanic holes that are growing through our valley.”

135. Mr Manikas, representing the Cook family, talked not only of the history of Aboriginal people but of their future. He spoke of his efforts in reclaiming his family’s history: “By allowing the proposed mine to proceed, it would destroy a significant part of the chance we, the descendants of Jack and Jessie Cooke, have in understanding our family... If the mine progresses, all this history will become a mystery to the descendants of Jack and Jessie Cook”. Mr Manikas asked, “Is the damage to history and culture, and the lives of the adjacent farmers that it is ruining, worth 70-80 local jobs?”

Deborah Faull, 611 Buckets Way East, Gloucester:

136. Deborah Faull and her husband John, moved to Gloucester 40 years ago, “because we wanted to live and raise a family in a clean, country environment. This beautiful valley delivered and we have been blessed with a wonderful life here. We raised four children and two of them have come home, as they two were seeking the life they grew up with; to live and work in a beautiful place with fresh air, clean waterways and a vibrant community.”

137. Deborah and John run a small business called Faulls Ridge Wine. Their son, Cain, is in the process of taking over his father’s building business, and with his wife Shelley, is the local florist. Deborah’s concern with the Rocky Hill mine is both personal and professional. “Every day we drive to town and the view over the valley is one of the best I have ever seen. It distresses me to think that every day, while driving to town, I’ll look over a huge hole in the valley.” Further: “If this mine is allowed, we will lose our children and grandchildren. Cain and Shelley have made it vehemently clear that they will not rear their children in a town with a mine so close to their home, school and shops. This town will lose two thriving businesses and John and I will lose our children and grandchildren.”

138. Professionally, Deborah believes that the “Rocky Hill Coal Mine will have an incredibly negative effect on our business. People come to this region because of the beauty, serenity and clean environment. They certainly will not come if that coal mine comes to town. We talk to a lot of tourists in our vineyard and at the local farmer's market, and they have all expressed a concern about this mine being so close to our town.”

Raymond Jacobs, 1637 Gloucester Tops Road, Gloucester:

139. Raymond Jacobs has lived in Gloucester his entire life and runs a local construction company: “If you were to look at my business it may seem small. Three employees and myself. But in my industry, 90 per cent of the projects are completed by other trades and servicemen. Although these tradesmen are not working for me on wages, on any given day I can have 15 to 20 subcontractors from all areas working on multiple jobs of mine... The majority of my building materials from start to finish are purchased in Gloucester, including someone to deliver them. So that when you look at my business from this angle and how many people I employ, it's actually quite a lot”.

140. In his experience, the Rocky Hill proposal has meant many people considering moving to Gloucester and building a home have reconsidered and decided not to do so: “Over the past five years I’ve had meetings with approximately 14 different potential clients who are looking to buy land and build in the estates located on the Jacks Road subdivision. Approximately half of those were young families and half were older couples looking for a quieter lifestyle with a small amount of land. They also wanted to build houses big enough so their families could come and stay often. All but one of those clients decided not to build due to the fact that AGL were going to frack the area for coal seam gas and that Rocky Hill Mine was going to mine the area. When AGL decided not to continue with its plans of fracking Gloucester and the Planning Assessment Commission ruled against the approval of Rocky Hill, I found that I was receiving almost double the amount of calls for new builds, extensions and renovations in Gloucester and surrounding areas... I’m still in discussion with some potential clients looking to build, but they are concerned about what is happening in Gloucester in regards to the Rocky Hill Coal Mine. They are uncertain whether they want to invest their money into a house that can be de-valued due to the position of the proposed Rock Hill Coal Mine or have their children and other family and friends’ health affected by the negative impacts mining would have on people in such a close proximity to where they live.” Mr Jacobs stated: “If this mine was to proceed, my family and I would be taking our business, and contribution to the community, with us”.

Trudy Schultz, 40 Irrarang Rd, Gloucester:

141. Trudy Schultz runs a local tourism business, Accommodation Gloucester. She believes that tourism is a key economic driver for Gloucester’s future: “Tourism in Gloucester is growing. Accommodation Gloucester regularly sits on 100 per cent occupancy across all 15 properties. Generally occupancy figures are climbing rapidly. As an example, comparing 2017 to January 2018, occupancy increased by 9 per cent and July 2017 to July 2018, occupancy leapt by 22 per cent.” In her view, this tourism is largely driven by the natural environment: “My guests mostly come to visit our World Heritage Barrington Tops, as well as visit our clean, pristine wilderness areas and rivers... When speaking with guests about why they visit Gloucester, the main reason is the back to nature country experience Gloucester offers and the relaxed

feeling that - when driving into Gloucester, the picturesque country views and relaxed feeling that that gives them. Peace and tranquillity highly rank in their comments.” However, in conversation with her guests “the majority of guests have said they would not come back if a mine went ahead... no-one wants to visit a mining - and holiday in - a mining town”.

Phillip Greenwood, 314 Glen Road Craven:

142. Phillip Greenwood is a resident of Craven suffering from impacts from the existing Stratford mine. In explaining his lived experience: “GRL maintains that it would be able to mitigate noise impacts to such an extent that they would be at acceptable levels for residents. It’s important to note here that ‘acceptable levels’ means levels that conform with the regulatory criteria, it does not mean tolerable for affected residents.” In his view, “On the basis of my experience of noise from the Stratford mine, there can be no confidence that attempts to mitigate noise from the Rocky Hill mine would achieve results that residents would consider adequate”. Mr Greenwood observed: “The Department of Planning determined that the Rocky Hill mine would operate not only at the margin of its proposed noise limit but would regularly cross those limits, in part because of the conflicting imperative for the mine to operate in the most efficient manner possible... Living some four kilometres from the Stratford Coal Processing Plant, I know how intrusive noise that is within approved criteria can be. How anyone could cope with noise that regularly exceeded the criteria, I do not know.” Based on his own experience and that of his neighbours, he said, “If the Rocky Hill mine proceeded, it could become untenable for many residents of the Forbesdale, Avon and Thunderbolt Estates to remain living in those locations. That would indeed be a perverse social and economic outcome for Gloucester.”

Sarah Soupidis, 5 Wright Close, Gloucester:

143. Sarah Soupidis is a local wife, mother, teacher and active community member. As a teacher, she is aware of the large proportion of local children, 1 in 7, who suffer from asthma and other air quality impacts, including her own children. “My husband and I find the idea of sending our asthmatic children into an environment so close to an open cut mine frightens us to say the least. It unfortunately begs the question, would we stay?” The loss of the Soupidis family would also have widespread impacts on the community. In Ms Soupidis’ words: “Together, my husband and I teach

approximately 60 students musical instruments. I conduct the only kids musical instrument ensembles in our town; one at the primary school and one at the high school. Our primary school would lose two experienced teachers. Our town would have one less church group meeting, and the numerous roles as a public figure that church pastor fills. Our sporting teams will be less two managers, and many committees and volunteer organisations would be missing our involvement. Between us we add approximately 600 hours of community service and involvement each year.”

Anthony Berecny, 130 Bullin Bullin Rd, Waukivory:

144. Anthony Berecny shares a significant property boundary with GRL on the eastern side of the proposal. Mr Berecny has seen significant changes in his local community as GRL has purchased properties for mining. In his view: “This is an industry that has no common ground with agriculture; the scene and peaceful surroundings that exist in Gloucester. Our farming community down Fairbairns Road is all but gone. All the mine houses are rented, whereas before we had owner neighbours. The Fairbairns community, before everybody east of the railway line was bought out by the mine, were property owners, running cattle, with lots in common and could be asked for advice, share equipment, band together to help complete tasks like fences down due to flooding, fires, discuss council rates going up. The list is endless, and the comment that GRL made, saying all their houses are tenanted and a community still exists, is just wrong.”
145. Mr Berecny states, “Between GRL and Stratford Coal Mine, over 100 farming and/or lifestyle families have been displaced. Some of these were self-funded retirees with high disposable superannuation. All these properties have a tractor, farm equipment, animals, they spent money in the town, they hired local contractors, et cetera. Bill Muserett, owner of Gloucester Machinery, which is now closed, used to lament every time a property was purchased by the mines. He said "Another client gone".”
146. Mr Berecny’s sense of place is closely tied to his land: “My greatest wealth is happiness, and that is being stolen. This is our soul place... we share a deep, deep connection to our land. We listen to the music of the bush, we truly enjoy being in the forest hearing the lyre birds, whip birds, wompy doves, glossy black cockatoos, watching the yellow and red robins, spotting the platypus in the river, noticing the

wallabies, echidnas and of course the wedge-tails”. He considers all of this to be risk from the mine: “It’s hard to explain the loss of freedom and feeling of being unsafe, hesitant and insecure in your own land.”

Glenn Morris, 38 Billabong Rd, Inverell:

147. Glenn Morris is a farmer from Inverell with a deep and abiding concern about the impact of climate change. He came to speak at Gloucester because it combines his childhood memories and his current knowledge that new coal projects will inevitably increase carbon emissions in the atmosphere and those effects will be felt across the local, regional, national and international environment. In his words: “We cannot afford the climate to get any warmer, or any dryer, and we have to make sure that every acre of land is kept in a healthy state to avoid emitting more carbon... As a farmer we are seeing the effects of climate change already impacting on our livelihoods. We cannot afford to be opening up new coal mines and destroying healthy lands.” Glenn said, “Time is no longer on our side, and there is no further room for delaying the transition into a progressive renewable energy and low emissions economy”.

148. An additional potential social impact identified by Mr Buckley’s evidence concerns the risk that the Project will become a stranded asset due to a combination of the projected 40% decline in coking coal and the existence of alternative approved coal mines sufficient to meet that demand. Despite the suggestion in cross-examination that this was simply a problem for the company, Mr Buckley identified that the risk of the Project becoming a stranded asset is actually a broader community problem:

*the proponent will lose money, we – the Australian Government or the New South Wales Government won’t get the royalties that are projected, the workforce benefits that the proponent puts forward won’t materialise, the community benefits won’t materialise and the communities and the workers will be left stranded and I would suggest the proponent would therefore leave the mine site unrehabilitated and the Australian taxpayer will end up having to fund the rehabilitation of the site as well.*¹⁵³

¹⁵³ Transcript 21/08/18, p. 424.

acceptable noise amenity for nearby residents”.¹⁶⁰ But as explained by Mr Gauld: “There is no assurance given in the INP that meeting the assumed, inflated RBL [Rating Background Levels] plus five will, will create acceptable ... acoustic amenity.”¹⁶¹

160. This situation arises because the INP assessment process allows the RBL, from which PSNLs are set, to be artificially increased to 30 dBA, regardless of the actual measured background level of noise. In the vicinity of the project, where measured background noise levels have been shown to be as low as 24dB,¹⁶² this can result in a situation where noise levels at residential receivers will be well above the intrusiveness criterion set out in the INP.

161. In the case of the Project, this was illustrated by Exhibit G10, which shows noise emergence of up to 10 dB above background levels are predicted in some winter evenings at various properties in the Avon River Estate and Thunderbolts Estate, during years 4, 7, 10, 17 & 18 of mining operations¹⁶³. Table 12¹⁶⁴ of the Noise chapter of the EIS is an assessment of prevailing wind conditions in the locality. Based on an analysis of meteorological data, prevailing southerly winds less than (or equal to) 3 m/s occur approximately 30% of evenings in winter and are thus considered a feature of the site.

162. In such circumstances, Mr Gauld disagrees with the conclusion drawn in the EIS that meeting the INP’s noise criteria will protect ‘90% of the population at Gloucester for 90% of the time’.¹⁶⁵

163. Mr Gauld stated that “in this situation where you have a combination of factors, one being the noise level is, is much, much quieter than other locations. You have a noise source that is new for the first time, so ... not there now and in the future it may be

¹⁶⁰ Joint Expert Report, Acoustic Impact, 4.8.

¹⁶¹ Transcript 22/08/18, p. 487.

¹⁶² ¹⁶² Expert Report of Mr Gauld at [8].

¹⁶³ Ex A, Noise Assessment p1-54

¹⁶⁴ *ibid*, page 1-38; see also App G1 (Meteorological Environment) page 1-192 of the EIS

¹⁶⁵ Expert Report of Mr Gauld at [77].

there. It's a ... activity that some people will be in favour of and other people won't be. So if you're not in favour of it, then that's another factor that adds to the impact. I think if you have a combination of those factors, people will be adversely affected, yes, acoustically. They'll be affected - the acoustic amenity will be adversely affected."¹⁶⁶

164. Mr Gauld further concludes that the low background noise level of Gloucester combined with the level of predicted mine noise with significant low frequent content is likely to be considered as offensive noise under the *Protection of the Environment Operations Act 1997* (NSW), notwithstanding that the Project and the Modification is compliant with the INP.¹⁶⁷

165. It is conceded by GRL that the highest predicted intrusive noise levels can only be achieved as a result of implementing "all feasible and reasonable noise mitigation measures in accordance with the requirements of the INP".¹⁶⁸ During the assessment process, the EPA raised repeated concerns about the "practicality of regularly limiting mining activities in an operational mine, and is concerned that the modelling for this project is optimistic about the available noise mitigation measures... the EPA questions whether the assumed and restrictive operational controls would be regularly put into practice on a large mine with a workforce in excess of 100 employees".¹⁶⁹

The EPA advised that:

the number of residents receiving noise above the intrusive criterion could be significantly greater than predicted if:

- *Noise levels were slightly under-predicted, or*
- *Not all necessary mitigation measures are implemented to meet the noise limits.*¹⁷⁰

¹⁶⁶ Transcript 22/08/18, p. 480.

¹⁶⁷ Gauld expert report 104-109.

¹⁶⁸ Thomas report para 3.21

¹⁶⁹ Exhibit P, EPA Letter dated July 2017.

¹⁷⁰ *ibid*

166. This concern was made good in Mr Thomas's evidence to the Court where Mr Thomas confirmed that the extensive noise management measures identified in Table 24 of the Amended EIS Noise, Blasting and Vibration Assessment¹⁷¹ are required to be implemented to achieve the predicted noise levels, and that these noise levels were calculated without including alarms or communication horns. Further, scheduling to avoid working in areas outside the pit on evenings with southerly winds, most likely in the winter, will be required.¹⁷² Mr Thomas conceded that "If the noise mitigations don't perform to their specification, they [the noise levels] would be higher".¹⁷³

167. Even with the operational controls, Mr Thomas identified it will still be necessary for the mine to shut down evening operations under certain weather conditions. As Mr Thomas explained: "having achieved that noise level under those weather conditions which is the prevailing assessable weather condition in accordance with the INP - to achieve 35 decibels it's necessary to switch off some of the equipment".¹⁷⁴ When asked to explain the process by which shutdowns would occur, Mr Thomas confirmed that even with live noise monitoring triggering alarms an extensive process is required from people with multiple delegations before action is likely to be taken to shut down operations and there is no clear proposal on exactly what plant would be shut down, for how long or what would trigger a re-start of operations.¹⁷⁵

168. Further, there is no noise management plan before the court that could give the court confidence that such shut down procedures could be reliably implemented. As expressed by Mr Thomas "I haven't seen one [a noise management plan] because one does not exist to the extent that one would be required under the consent. At this stage we have a noise impact assessment for the project".¹⁷⁶ No noise management plan has been produced by GRL and, accordingly, the Project cannot be granted consent

¹⁷¹ Amended Rocky Hill Coal Project Part 1 Noise, Blasting and Vibration Assessment, p 1-58.

¹⁷² Transcript 22/08/18, p. 455-460.

¹⁷³ Transcript 22/08/18, p. 471.

¹⁷⁴ Transcript 22/08/18, p. 462.

¹⁷⁵ Transcript 22/08/18, p. 464-468.

¹⁷⁶ Transcript 22/08/18, p. 468-469.

according to the planning principle established in *Revelop Projects Pty Limited v Parramatta City Council* [2014] NSWLEC 1167.

169. Therefore, while it was agreed by the acoustic experts that it was appropriate to apply the INP to the assessment of the project, it remains in dispute whether the PSNLs advocated by GRL (adopting the INP) will adequately protect the acoustic amenity of the nearby residents when considering the social impacts of the project.

170. It is GG's contention that the noise impacts will constitute intrusive noise for members of the Gloucester community, particularly those living in the Avon River and Thunderbolts estates and the Jacks Road and proximate Bucketts Way residents. Accordingly, the noise impacts of the Project will constitute an unacceptable social impact on the community and the Project should be refused consent.

Conclusion – social impact

171. It is GG Inc.'s submission that the expert evidence and the lay objector evidence demonstrate that:

- a. the social impacts on residents and the community of Gloucester have been underestimated by the environmental assessment for the Project and the Modification;
- b. the Project and the Modification will cause an adverse impact on the sense of place or community experienced by residents and the community of Gloucester by reason of the proposal for and introduction of an open cut mine (the Project) in close vicinity to residents and the community of Gloucester and the extended duration in operations of an existing mine (the Modification);
- c. impacts on the existing local tourism industry and sense of place or community that is associated with Gloucester being strongly linked to the natural environment have been inadequately considered by the environmental assessment for the Project and the Modification;
- d. the Project and the Modification will have negative impacts on residents and the community, including noise, dust and air quality impacts, and impacts arising from mine operation and long-term rehabilitation, that will affect the residents and the community of Gloucester; and

- e. those negative impacts are not outweighed by the purported economic benefits of the Project and the Modification.

172. The social impacts that arise from the operation of the mine, are heightened by the knowledge of the IEA projected 40% decline in coking coal and the fact that there are already sufficient projects approved to provide coking coal under this scenario, as this creates a significant risk that the Project will become a stranded asset. Despite the suggestion that this was simply a problem for the company, Mr Buckley explained that the risk of Project becoming a stranded asset is actually a broader community problem and social impact:

the proponent will lose money, we – the Australian Government or the New South Wales Government won't get the royalties that are projected, the workforce benefits that the proponent puts forward won't materialise, the community benefits won't materialise and the communities and the workers will be left stranded and I would suggest the proponent would therefore leave the mine site unrehabilitated and the Australian taxpayer will end up having to fund the rehabilitation of the site as well.¹⁷⁷

173. GG Inc.'s submission is that the significant adverse social impact of the Project and the Modification, contrary to the public interest and the principles of ESD, mean that the Project and the Modification should be refused.

CONCLUSION

174. For the reasons set out above, neither the Project nor the Modification should be approved.

Robert White

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28 August 2018

¹⁷⁷ Transcript 21/08/18, p. 424.