

## Dendrobium Extension Project

### Submission to the NSW Independent Planning Commission on behalf of Protect Our Water Alliance

#### Introduction

1. This submission on the Dendrobium Extension Project (**project**) is made on instructions from the Environmental Defenders Office Inc on behalf of Protect Our Water Alliance (**POWA**). It supplements the oral submissions made to the IPC on 4 December 2020.
2. POWA is a community group formed with the aim of protecting Sydney's drinking water catchment from the impacts of mining.
3. POWA engaged independent experts to review the environmental assessment and believe that the evidence presented to the Independent Planning Commission (**IPC**) justifies the project being refused on its merits. In summary, it is POWA's case that the project should be refused development consent on the basis of the following environmental impacts:
  - a. The project will have unacceptable impacts on the quality and quantity of groundwater and surface water in the Sydney drinking water catchment and will not meet the modified neutral or beneficial effect of water quality (**NorBE**) test under the *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 (Sydney Drinking Water Catchment SEPP)* (see the expert evidence of Mr Peter Dupen, Prof Stuart Khan, Dr Tanya Mason and Dr Ian Wright);
  - b. The project will have unacceptable impacts on the conservation of biological diversity (see the expert evidence of Dr Tanya Mason and Dr Ian Wright);
  - c. The project will generate unacceptable and inadequately accounted for greenhouse gas emissions (see the expert evidence of Prof James Goodman, Prof John Quiggin and Dr Neil Perry);
  - d. The social and economic benefits of the project have been overstated and the environmental harm arising from the project is unacceptable in the

context of the urgent need to reduce greenhouse gas emissions and adopt alternative technologies such as green steel (see the expert evidence of Dr Neil Perry, Prof John Quiggin, Dr John Pye and Mr Tony Wood).

4. This submission addresses two key legal issues:
  - a. The application of the principles of ecologically sustainable development (ESD) to the project; and
  - b. The interpretation of *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* and its application to the project.
5. In determining the development application for the project, the IPC will need to weigh the environmental impacts of the project against its economic and social benefits in line with the requirements of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*.
6. It is POWA's fundamental submission that the environmental impacts of this project outweigh the social and economic benefits of the project, that the project is not in the public interest, and accordingly development consent should be refused.

## **Ecologically Sustainable Development**

### *Integration of social, economic and environmental considerations*

7. The principles of ESD are set out in section 6(2) of the *Protection of the Environment Administration Act 1991 (POEA Act)*. The chapeau to section 6(2) provides:

*...ecologically sustainable development requires the effective integration of social, economic and environmental considerations in decision-making processes.*
8. What this requires is a balancing exercise whereby the social, economic and environmental benefits and disbenefits are weighed up to determine whether the project should proceed.
9. Two issues arise from the Assessment Report prepared by the Department of Planning, Industry and Environment:
  - a. Identification of social, economic and environmental benefits and disbenefits that are relevant to the project; and

- b. Comparison of the project with alternatives that might achieve the same or similar social, economic and environmental benefits without incurring the same or similar social, economic and environmental disbenefits.
10. On the first issue, the Assessment Report attributes the downstream economic benefits of the project while distancing the project from the environmental impacts incurred as a result of those very economic benefits.
11. At 6.10.31 of the Assessment Report, the Department considered that the downstream economic impacts of the project should be examined carefully as part of the assessment, despite these impacts being outside the scope of the relevant assessment guidelines. The Assessment Report at 6.10.31-6.10.61 contains a detailed assessment of the downstream impacts of the project, including impacts on the Port Kembla Coal Terminal, BlueScope's Port Kembla Steelworks, South32's Bulli Seam Operations, other coal mines in the Southern Coalfield and broader impacts on the NSW economy.
12. Yet, in relation to the greenhouse gas emissions that will necessarily be incurred in creating those economic impacts, the Department states at 6.9.13 of the Assessment Report that it is a fundamental principle of accounting to avoid double counting and the greenhouse gas emissions associated with the use of coal in steelmaking are accounted for at the steelworks. The Assessment Report also records at 6.9.12 that the Department considers that the key areas for active management of greenhouse gas emissions within the development assessment and approval process are reductions in direct emissions and improved energy efficiency.
13. *State Environment Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP)* mandates that the IPC, in determining the Project, "consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and must do so having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions" (clause 14(2)). The IPC also is required to consider whether or not the consent should be issued subject to conditions aimed at ensuring that "greenhouse gas emissions are minimised to the greatest extent practicable" (clause 14(2)(c) Mining SEPP).

14. Accordingly, it is within the IPC's power to condition Scope 1, Scope 2, and Scope 3 greenhouse gas emissions. This would include a condition requiring that the Project be carbon neutral.
15. It is also within the IPC's power to refuse the Project partly or wholly on the basis of its greenhouse gas impacts. In *Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7, at [553]-[555] Preston CJ stated:

*I consider the better approach is to evaluate the merits of the particular fossil fuel development that is the subject of the development application to be determined. Should this fossil fuel development be approved or refused? Answering this question involves consideration of the GHG emissions of the development and their likely contribution to climate change and its consequences, as well as the other impacts of the development. The consideration can be in absolute terms or relative terms.*

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

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

16. Moreover, Scope 3 emissions are required to be considered under section 4.15(1)(b) "the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality" and under section 4.15(1)(e) "the public interest", as stated by Preston CJ in *Gloucester Resources* at [498]:

*The consent authority is also required to consider the public interest (s 4.15(1)(e) of the EPA Act). The public interest has been held to include the principles of ESD: see Telstra v Hornsby Shire Council at [124] and Minister for Planning v Walker (2008) 161 LGERA 423; [2008] NSWCA 224 at [42], [43]. In turn, the principles of ESD, particularly the precautionary principle and principle of inter-generational equity, have been held to require consideration of the impact of a development on climate change and the impact of climate change on a development: see, for example, Gray v Minister for Planning (2006) 152 LGERA 258; [2006] NSWLEC 720; Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd (2007) 161 LGERA 1; [2007] NSWLEC 59; Aldous v Greater Taree City Council (2009) 167 LGERA 13; [2009] NSWLEC 17; and Hunter Environment Lobby Inc v Minister for Planning [2011] NSWLEC 221.*

17. It is POWA's submission that in weighing up the social, economic and environmental benefits and disbenefits of the project, the IPC should consider the environmental impacts of steel making if it is to have regard to the economic benefits of it.
18. On the second issue, it is important to consider a range of alternatives to the project to reach a conclusion as to whether the social, economic and environmental disbenefits of the project outweigh the social, economic and environmental benefits of the project. POWA submits that the economic benefits of the project do not justify its environmental impacts.
19. The Assessment Report does not include sufficient consideration of alternatives to the project. It contains a detailed assessment of alternative longwall mine designs for the project. It does not consider whether the economic benefits can be achieved by a different project that would not have the associated environmental impacts.
20. At 6.2.13-6.2.42 the Assessment Report includes a detailed consideration of narrower longwalls. This assessment compared the environmental impacts and the economic benefits of various mine designs using a range of longwall panel widths. At 6.2.37-6.2.38 the Assessment Report records the Department's view that economic costs of reducing panel widths outweigh the resulting environmental benefits (reduced surface water impacts) and accordingly, concludes that narrower longwall panels are not justified.

21. At 6.6.33-6.6.41, the Assessment Report considers two alternative longwall mine designs for the project to reduce the subsidence impacts on upland swamps. First, it notes that the selection of mining areas 5 and 6 over area 4 has avoided impact on upland swamps because area 4 has a greater proportion of its area affected by swamps. Secondly, the Assessment Report considers a 'minimum case' mine design that avoided undermining upland swamps. This option was ruled out as South32 "advised that this longwall layout is not considered economically feasible". The Assessment Report also notes that although this design would avoid impacts on upland swamps, it would offer little benefit to watercourses and ultimately catchment flows.
22. The Assessment Report reasons that these alternative longwall mine designs are not justified on the basis of their reduction in environmental impact compared to their economic costs and therefore the project should not be modified to require the alternative longwall mine designs. This reasoning is flawed. It assumes that the project will proceed and considers whether changes to the project are justified. POWA submits that what the assessment of alternative longwall mine designs demonstrates is that there is no economically feasible way of carrying out the project that avoids the unacceptable environmental impacts and accordingly development consent for the project must be refused.
23. There are a number of alternatives to the project that ought to be considered by way of comparison when weighing the social, economic and environmental considerations of the project. The purpose of this comparison is to determine whether or not the project is justified, in other words, whether the IPC should grant development consent for the project. Alternatives to the project that could achieve the same or similar economic benefits without incurring the unacceptable environmental impacts include:
- a. A different mining method. There was no consideration of alternative mining methods, such as bord and pillar, in the Assessment Report. The EIS at 9.2.1 quoted the Southern Coalfield Panel Report that "longwall mining is now the only major, viable, high production method in the majority of Australian underground coal mines that operate at a depth of greater than about 300m and in virtually all new coal mines (irrespective of depth)". It then concludes,

without providing any evidence that this is so, that longwall mining is considered to be the only viable mining method for the project.

- b. Mining a different resource. There are considerable coal resources in NSW. It is unlikely that these will be exhausted before coal mining is abandoned. The Assessment Report did not consider whether coking coal could be mined elsewhere in NSW without the environmental impacts of this project. This project has relatively high direct greenhouse gas emissions due to the amount of gas within the resource. The impacts on surface water quality and quantity and on uplands swamps could be avoided if a different resource was mined.
- c. Producing steel without coking coal. The Assessment Report at 3.2.9-3.2.10 mentions the public discussion about 'green steel' and records the Department's consideration that any such development is likely to be (at the very least) several years in the future. This industry would use low-cost renewable energy to produce hydrogen by electrolysis of water. The green hydrogen is then used to reduce iron ore and produce molten steel. Other green steel pathways, such as molten oxide electrolysis, are also currently in development but are further from commercialisation. Green steel production would avoid many of the environmental impacts of this project, particularly the impact on surface water and upland swamps. The IPC heard evidence that commercially viable alternatives are already in use.<sup>1</sup>

24. POWA submits that consideration of the above alternatives demonstrates that the same or similar economic benefits of the project could be achieved without the unacceptable environmental impacts. Accordingly, the project should not be approved.

#### Precautionary principle

25. The precautionary principle is that if there are threats of serious or irreversible environmental damage, lack of full certainty should not be used as a reason for

---

<sup>1</sup> Transcript public hearing 2 December 2020 pp 99-101

postponing measures to prevent environmental degradation (section 6(2)(a), POEA Act).

26. There is scientific uncertainty as to a number of serious or irreversible environmental impacts of the project, as described in the expert reports of Mr Peter Dupen, Prof Stuart Khan, Dr Tanya Mason and Dr Ian Wright. The approach of the proponent, which is accepted by the Department, is in the face of scientific uncertainty as to the environmental impacts of the development, to commit to rehabilitating or offsetting those impacts.

27. This approach is unacceptable for two reasons:

- a. It does not provide the IPC with a complete assessment of the environmental impacts of the project and consequently the IPC is not in a position to weigh up the social, economic and environmental considerations in order to decide whether or not the project should proceed.
- b. It is not responsive to the imperative of the precautionary principle to not postpone measures to prevent environmental degradation. In fact, the approach does not seek to prevent environmental degradation at all, it proposes rehabilitation and offsetting after environmental degradation has occurred. It is not known whether these impacts can be effectively rehabilitated or offset.

28. The Assessment Report identifies scientific uncertainty as to the environmental impacts of the project in a number of respects. Some examples are:

- a. uncertainty as to the impacts on pools within streams that will be impacted by the project, such as key fish habitat (6.3.75-6.3.76);
- b. uncertainty as to the water quality impacts associated with aquifer repressurisation and mine closure following completion of the project (6.3.111-6.3.114); and
- c. uncertainty as to impacts of the project on upland swamps (6.6.61-6.6.68).

29. The proponent has committed to rehabilitation and offsetting where impacts exceed those identified in the EIS. The Department has proposed conditions of approval to require rehabilitation and offsetting. However, those conditions do not do what the precautionary principle requires. They do not place a limit on impacts. Rather, they



set performance criteria that, if exceeded, trigger the requirements for further rehabilitation and offsetting.

30. For example, in relation to impacts on threatened ecological communities and threatened species, condition C1 set the performance measure of “no environmental consequence greater than has been offset in accordance with Table 5 and Table 6”. Table 5 and Table 6 set out the number of biodiversity credits required to offset the predicted impacts of the project. Condition C3 requires remediation or additional offsetting to the extent that the performance measure is exceeded. These conditions acknowledge that the impacts of the project may exceed the predictions (i.e. scientific uncertainty as to the environmental impacts of the project) and do not place a limit on those environmental impacts (i.e. postpone measures to avoid environmental degradation).
31. Further, the conditions do not require measures to avoid further impacts once the performance criteria are exceeded. For example, condition C8 requires an extraction plan that incorporates trigger action response plans to include actions to respond where performance measures are likely to be exceeded. It does not place an absolute requirement to avoid exceeding performance measures because the trigger action response plans are to include an assessment of remediation measures that may be required if exceedances occur.

#### *Conservation of biological diversity and ecological integrity*

32. Section 6(2)(c) of the POEA Act states that the conservation of biological diversity and ecological integrity should be a fundamental consideration.
33. In addition to the object of facilitating ESD, the objects of the EP&A Act include the protection of the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats (section 1.3(e)).
34. Clause 14 of the Mining SEPP requires the consent authority to consider whether or not the consent should be subject to conditions to ensure that impacts on biodiversity are avoided or are minimised to the greatest extent practicable.
35. The *NSW Biodiversity Offsets Policy for Major Projects* sets out a number of relevant principles. The first principle is that before offsets are considered, impacts must first

be avoided, and unavoidable impacts minimised through mitigation measures. Only then should offsets be considered for the remaining impact.

36. The *Addendum to the NSW Biodiversity Offsets Policy for Major Projects: Upland swamps impacted by longwall mining and subsidence* applies that principle to the specific circumstances of the project and states that a proponent must seek to avoid longwall mining underneath upland swamps and that offsets may only be used where it can be demonstrated that all feasible measures to avoid and minimise impacts have been taken.

37. The IPC heard from Dr Tanya Mason about the significance of the impacts the project would have on upland swamps, which are listed as endangered at both the NSW and Commonwealth level:<sup>2</sup>

*We have provided quantitative evidence of persistent hydrological impacts of longwall mining. We know that these impacts are largely irreversible because all documented industry attempts at restoration have failed to re-establish pre-mining hydrological function. And this was demonstrated in a – in a Commonwealth review in 2014. We also know that upland swamps are geographically restricted in Australia, and this is reflected in their endangered status both at the state and federal level. I would argue that decision makers need to identify upland swamps as sites where targets are highly irreplaceable. They are not widely distributed and therefore cannot be offset or substituted.*

38. The relevant section of the Assessment Report is considered at paragraph 21 above. The 'minimum case' demonstrated that the mine could be redesigned to avoid impacts on upland swamps. It did not demonstrate, by reference to any credible evidence, that the 'minimum case' mine design was not reasonable and feasible. Rather it relied on advice from the proponent that this is "not considered to be economically feasible". Accordingly, it is not appropriate to rely on offsets to justify the project.

---

<sup>2</sup> Transcript public hearing 4 December 2020 p 21

## Sydney Drinking Water Catchment SEPP

39. The Sydney Drinking Water Catchment SEPP has as its aims (s 3):

*(a) to provide for healthy water catchments that will deliver high quality water while permitting development that is compatible with that goal, and*

*(b) to provide that a consent authority must not grant consent to a proposed development unless it is satisfied that the proposed development will have a neutral or beneficial effect on water quality, and*

*(c) to support the maintenance or achievement of the water quality objectives for the Sydney drinking water catchment.*

40. The Sydney Drinking Water Catchment SEPP was amended in 2017 to insert the new clause 11A, which provides as follows:

### **11A Neutral or beneficial effect on water quality—continuing development**

*(1) This clause applies for the purposes of determining under this Policy whether the carrying out of continuing development on land in the Sydney drinking water catchment would have a neutral or beneficial effect on water quality.*

*(2) **Continuing development** is any development (such as mining) for which development consent was limited to the carrying out of the development for a particular time or to a particular area or intensity, but which was likely to be the subject of future applications for consent for its extension or expansion.*

*(3) If:*

*(a) development consent was granted for continuing development (“the existing development consent”), and*

*(b) a development application is made for consent to extend or expand the carrying out of the development (“the proposed development”), and*

*(c) the development application is made before the authority conferred by the existing development consent expires or is exhausted, the carrying out of the proposed development will have a neutral or beneficial effect on water quality if it will have the same or a lesser*

*adverse impact on water quality when compared to the adverse impact that the continuing development would have if it were extended or expanded under similar conditions as the existing development consent.*

*(4) Subclause (3) extends to an existing development consent that is to be surrendered if consent is granted on the determination of the development application.*

*(5) In this clause, a reference to an existing development consent includes a reference to a project approved under Part 3A of the Act before its repeal (or granted after its repeal pursuant to Schedule 6A to the Act).*

41. Two key questions of interpretation of clause 11A arise in relation to the project:
  - a. Is the project “continuing development” for the purposes of clause 11A(2)?
  - b. How does the modified neutral or beneficial effect (NorBE) test in clause 11A(3) apply to the project?
42. In relation to the first question, it is a matter of which the IPC will need to be satisfied before determining the development application.
43. The Assessment Report at 6.3.118 records that the Department accepts that the project is continuing development for the purposes of clause 11A(2) because the current mining lease (CCL 768) is very much larger than the area for which development consent was granted in 2002 and the coking coal resources within CCL 768 have been known as a large scale and valuable resource since well before the grant of CCL 768 under the *Coal Mining Act 1973*. This reasoning was supplemented by oral submissions from representatives of the Department on 2 December 2020 to the effect that the proponent has had the intention to mine these areas for decades and that there is a resource there that has not been won.<sup>3</sup>
44. The definition of continuing development includes the phrase “was likely to be the subject of future applications for consent for its extension or expansion”. This raises the question: at what point in time is it to be considered whether or not it is “likely” that future applications will be made? POWA submits that the appropriate time for assessing whether future applications for consent were likely was when the original

---

<sup>3</sup> Transcript public hearing 2 December 2020 pp 19-20

consent for the development was granted. This is because the start of the definition refers to “development consent was limited to the carrying out of the development for a particular time or to a particular area or intensity”. In this case, the relevant development consent was granted in 2001.

45. The relevant question, then, is whether future applications for consent to expand or extend the mine were likely as at 2001. The mining lease was granted well before 2001. The Assessment Report does not identify when it was first granted but notes that it was consolidated (from previously granted mining titles) pursuant to the 1973 mining legislation, which was repealed in 1993. The grant of the mining lease is therefore irrelevant to the question of whether, as at 2001, it was “likely” that there would be future applications for consent to expand or extend the mine.
46. The 2001 consent authorised mining until 2030. Mining authorised by that consent has not been completed. Area 3C has not been mined (due to high levels of gas). The fact that mining was authorised until 2030 is relevant to consider in determining whether future applications were likely as at 2001.
47. The proponent has not provided a sufficient evidentiary basis upon which the IPC can safely conclude that the project is continuing development for the purposes of clause 11A(2). The Department asks the IPC to draw an inference from the fact that there is an unmined resource within the mining lease that future applications were likely. POWA submits that that inference should not be drawn. This is because the mining lease was granted well before the development consent. It may have been likely that there would be future applications to mine the resource at the time the mining lease was granted, but the relevant time for the purposes of the definition of “continuing development” is the time the development consent was granted. The mining lease is irrelevant to the question of whether the project falls within the definition.
48. If an inference is to be drawn, it ought to be drawn from the development consent, which authorised mining until 2030. POWA submits that it is open for the IPC to infer that at the time consent was granted in 2001 for mining until 2030, it was unlikely that there would be future applications to extend or expand the mine. In 2001, the

impacts of greenhouse gases were well known<sup>4</sup> and the Australian government was considering policies to reduce greenhouse gas emissions, including the adoption of an emissions trading scheme.<sup>5</sup> Australia had signed the Kyoto Protocol<sup>6</sup> and not yet refused to ratify it.<sup>7</sup> Having regard to this context, POWA submits that as at 2001, it would have been unlikely that there would be future applications to extend or expand Dendrobium coal mine beyond 2030.

49. The IPC therefore cannot be satisfied that the project is continuing development.
50. Turning now to the application of the modified NorBE test to the project (assuming that it applies).
51. Unusually, the amendment to the Sydney Drinking Water SEPP was made by legislation passed by NSW Parliament. The legislation was introduced to overcome the Court of Appeal's decision in *4nature Incorporated v Centennial Springvale Pty Ltd* [2017] NSWCA 191. Given that context, it is relevant to consider the second reading speech in the Legislative Council and the facts of the Springvale case.
52. The Court of Appeal's decision in the Springvale case was that the NorBE test required a comparison between the drinking water quality with and without the proposed development. The existing Springvale mine discharged saline water into the catchment. If approval for the mine was not granted, this discharge would cease. If approval for the mine was granted, it would continue. The Court of Appeal compared these two conditions and concluded that the proposed development did not pass the NorBE test.
53. The second reading speech in the Legislative Assembly relevantly included the following:

*For continuing development the basis for determining the effect on water quality should be the new development—that is, the extended or expanded part of the proposal and not the development that is already authorised by an existing approval—even if it is time limited.*

---

<sup>4</sup> The International Panel on Climate Change released its third assessment report in 2001, which detailed the growing scientific evidence that global temperatures increased over the 20th century and predicted temperatures to increase by 1.4–5.8°C over the next century.

<sup>5</sup> The Australian Greenhouse Office had released the fourth discussion paper on emissions trading in December 1999.

<sup>6</sup> Australia signed the protocol on 29 April 1998.

<sup>7</sup> This decision was announced on 5 June 2002.

*The existing impacts form part of the current water quality levels that will need to be compared. This is how the water quality test was understood to operate prior to the Court of Appeal's decision and is consistent with the interpretations of the Independent Planning Assessment Commission and the Land and Environment Court of New South Wales. In short, it was settled law. Importantly, nothing in the bill will result in a reduction in the level of water quality currently required by the planning legislation or development consents. Development in the Sydney drinking water catchment will still need to have a neutral or beneficial impact on water quality in order to be approved.*

54. The Assessment Report at 6.3.120 states that clause 11A(3) requires that any development consent to extract coal in Area 5 and 6 must be granted under conditions that do not cause a greater impact on water quality than the existing conditions of the 2001 consent. With respect, this is a misinterpretation of the test.
55. The modified NorBE test in clause 11A(3) requires a comparison between the proposed development and a continuation of the impact of the existing development under similar conditions as the existing development consent.
56. The words of clause 11A(3) require the impacts of the proposed development to be “compared to the adverse impact that the continuing development would have if it were extended or expanded under similar conditions as the existing development consent”. In other words, one is to assume that the impact of the existing development will continue under similar conditions as the existing development consent. Then, one asks whether the proposed development will have the same or lesser impact. It is not enough to compare the conditions of the existing development with the proposed conditions for the proposed development.
57. Applying this test to the Springvale example, one compares the impact of the proposed development (i.e. the saline discharge to the catchment) with a continuation of the existing development under similar conditions to the existing development consent (i.e. assume that the saline discharge to the catchment continues). In this example, there is no change to the impact because the same saline discharge to the catchment occurs in each condition.
58. In the present case the relevant comparison is between the water quality impacts if:

- a. the project proceeds, whereby impacts from the existing mine will continue and additional impacts will be incurred; and
- b. assuming a continuation of the impacts of the existing mine under the current conditions.

59. The distinguishing feature of this project as compared with the Springvale mine is that the impacts of the existing Dendrobium mine will in fact continue, whereas at Springvale, the saline discharge would have ceased if the mine was not extended. The project will have a negative impact on water quality in the catchment according to the modified NorBE test because it increases the impacts above the continuing impacts of the existing mine.

60. In any event, even if the Department's interpretation of the modified NorBE test is correct, that test is not satisfied in the present case. First, the proposed conditions are not similar to the current conditions. Condition 3 of Schedule 2 of the current conditions requires that the applicant ensure the development does not result in reduction (other than negligible reduction) in the quality or quantity of surface water or groundwater inflows. The proposed conditions do not place a limit on the impact of the development, rather, they set performance measures and then expressly contemplate exceedance of those measures by providing for additional rehabilitation and offsetting (conditions C1 and C3). Second, the 2001 consent continues in operation, in other words, there will be two consents that both authorise a certain level of impact on water quality in the catchment. The impacts of the development under the 2001 consent and the project are cumulative. The proposed conditions do not place an overall limit on the impacts of the total development.

61. The IPC heard from Professor Stuart Khan and Dr Tanya Mason that the project will have significant impacts on catchment health and water quality that is not consistent with NorBE.

62. Prof Khan in his presentation to the IPC emphasised the importance of protecting the drinking water catchment to ensure the maintenance of drinking water quality:<sup>8</sup>

---

<sup>8</sup> Transcript public hearing 4 December 2020 pp 29-31



*So this point is emphasised that – that catchment management is – is part of the framework, part of the responsibility for managing drinking water. And you see this expression repeated over and over again. It's catchment to consumer...*

*...I don't think you have to think about it too much to realise that none of these requirements are satisfied for there to be a neutral or beneficial effect on water quality, no identifiable potential impact on water quality. I think we can see from experience that we do have identified potential impacts on water quality...*

63. Dr Mason highlighted the role that upland swamps play in maintaining water quality:<sup>9</sup>

*Upland swamps provide valuable ecosystem services for human population. They provide regulating services including water purification, flow rate regulation, flood mitigation and carbon sequestration. Provisioning services include genetic resources and water supply. Wetlands provide supporting services to primary production, nutrient recycling and global water and carbon cycles.*

64. Finally, the modified NorBE test is not the end of the assessment of water quality impacts in the catchment. It is a threshold issue. It is not a non-discretionary development standard where consent cannot be refused on the basis of a development standard if the standard is met (cf. clause 12AB of the Mining SEPP). The IPC is required to consider those impacts in its overall assessment of the project. It is an object of the EP&A Act to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.

### **The public trust doctrine**

65. There is another avenue by which the IPC should refuse the development on water impacts and climate change grounds; that is, the doctrine of the public trust.

---

<sup>9</sup> Transcript public hearing 4 December 2020 p 18

66. The state is subject to a public trust duty to protect the air, atmosphere and water resources, including groundwater. This is reflected in the objects of the EP&A Act, namely the object “to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State’s natural and other resource” (section 1.3(a)). The assets are held in trust for the people. The public trust doctrine regulates the IPC’s exercise of power under s 4.15 of the EP&A Act to determine the development application for the project, either as part of the ‘public interest’, or separately under the common law. That duty is breached by a determination to grant development consent in circumstances where the development will cause harm to the Sydney drinking water catchment, reduce the availability of drinking water and contribute to anthropogenic climate change.
67. This argument arises from the particular application of the public trust doctrine to essential natural resources. With respect to these core resources, the state’s public trust obligations prevent it from depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens. The roots of the public trust doctrine are in Roman law, the Institutes of Justinian, part of the Corpus Juris Civilis. The Institutes of Justinian declared ‘the following things are by natural law common to all – the air, running water, the sea, and consequently the seashore.’
68. The public trust operates similar to basic trust principles, which impose upon the trustee a duty to protect the trust property against damage or destruction. The trustee owes this duty equally to both current and future beneficiaries of the trust. In natural resources cases, the trust property consists of a set of resources important enough to the people to warrant public trust protection (see Mary Wood, *A Nature’s Trust: Environmental Law for a New Ecological Age* (2014) pp 167-75). The government, as trustee, has a duty to protect the trust assets from damage so that current and future trust beneficiaries will be able to enjoy the benefits of the trust.

69. Of the nature of the public trust doctrine as it relates to natural resources,

Preston CJ writes (extrajudicially):<sup>10</sup>

*The public trust doctrine has its origins in Roman law, specifically in the property concept of res communis. These are things which, by their nature, are part of the commons that all humankind has a right in common to access and use, such as the air, running water, the sea and the shores of the sea, and that cannot be appropriated to private ownership. Ownership of these common natural resources is vested in the state as trustee of a public trust for the benefit of the people. The state, as trustee, is under a fiduciary duty to deal with the trust property, being the communal natural resources, in a manner that is in the interests of the general public, who are the beneficiaries of the trust.*

70. The Institutes of Justinian included the air in the list of assets “*by natural law common to all*”. Just as the state has a duty to ensure the continued availability and existence of its water resources, including within the Sydney drinking water catchment, for present and future generations, so it has a duty to protect the air, atmosphere and the climate from substantial impairment. Approval of the development is fundamentally inconsistent with each duty.

71. As was put to the IPC by Ms Kaye Osbourne from Illawarra Residents for Responsible Mining:<sup>11</sup>

*We will always need water, but we don't – we won't always need coal.*



Lauren Sims

Martin Place Chambers

15 December 2020

---

<sup>10</sup> Chief Judge Preston, ‘Protected Areas in the Courts: An Overview’ (IUCN World Parks Congress, Sydney, 13 November 2014) 29-35.

<sup>11</sup> Transcript public hearing 2 December 2020 p 80