

# Friends of Minnamurra River Incorporated

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Ms Tanya Plibersek MP  
Minister for Environment  
PO Box 6022  
House of Representatives  
Parliament House  
CANBERRA ACT 2600

23 January 2023

**cc.** Environment Minister's Electorate Office, PO Box 2676, Strawberry Hills, NSW 2012; Mr Dan Doran, Chief of Staff, Environment Minister's Office, PO Box 6022, House of Representatives, Parliament House, Canberra 2600.

Dear Minister

This is to alert you that research and scientific advice available to Friends of Minnamurra River (FOMR) Inc<sup>1</sup> indicates that decisions by your Department may have resulted in a breach of the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and will probably result in further breaches of the Act, particularly its provisions relating to a Matter of National Environmental Significance (MNES).

The possible breach of the Act is indicated in a letter sent to FOMR on your behalf on 23 December 2022 from a Ms Kate Gowland, A/g Head of your Department's Environment Assessments (NSW, ACT) Branch.

In that letter, Ms Gowland referred to a proposal by Boral Limited for a deep sand mine and associated infrastructure at Boral's Stage 5B site at the Dunmore Lakes Sand Mining Project immediately south of Dunmore House, near the Minnamurra River at Dunmore, NSW.

The new mine, on leasehold land, is awaiting imminent development as a sand mine after approval by the NSW government and is the subject of two applications under sections 9, 10 and 12 of the Commonwealth's *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (ATSIHP Act).

In December 2020, on the basis of all the evidence, our FOMR secretary formally complained to the former Commonwealth Minister for Environment that both Boral Limited and the NSW Department of Planning, Industry and Environment, had failed to notify the then federal Minister for Environment that they were proposing a mine named the Dunmore Lakes Project 'that will have, or is likely to have, a significant impact on a Matter of National Environmental Significance (MNES), a Commonwealth-listed critically endangered ecological community of SE Littoral Rainforest'.

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<sup>1</sup> Friends of Minnamurra River (FOMR) is an active incorporated community-based association formed five years ago to conserve, protect and enhance the estuarine and catchment ecosystems of the Minnamurra River. It has qualified expertise available to it and within its membership in plant and animal ecology, archaeology, hydrology and environmental science.

Failure to notify your Department of a possible impact of an activity or development on a federally listed endangered ecological community such as the SE Littoral Rainforest, is, of course, a breach of the EPBC Act.

It is important to note that the critically endangered SE Littoral Rainforest community at and near the Dunmore Lakes Project mine site varies from mature SE Littoral Rainforest, some of which actually overhangs the boundary fence of the mine site and the proposed dredge pit, to young regrowth and semi-mature stands at and surrounding the proposed dredge pit site.

Importantly, the Littoral Rainforest species is ecologically associated with – in fact, an integral part of – the ancient Bangalay Sand Forest ecosystem on the mining site.

**Both Boral Limited and the NSW Department of Planning, have acknowledged that this Bangalay Sand Forest and its associated plant communities, including the SE Littoral Rainforest in various stages of maturity, regrowth and recovery, is to be completely cleared – levelled - to make way for the mine and its infrastructure at Stage 5B.**

Both Boral Limited and the Department are unaware - or seem to be unaware - that the critically endangered and Commonwealth-listed SE Littoral rainforest is ecologically associated or integrated with the Bangalay Sand Forest community/ecosystem which is to be totally destroyed.

This returns us to your Department's 23 December 2022 letter to FOMR.

Ms Gowland states that as a result of our 2020 complaint to the former minister, "Boral were made aware of their responsibility to refer the project under the EPBC Act, if there is likely to be a significant impact on a matter protected by the EPBC Act."

Ms Gowland also stated: "At the same time, the former Department of Agriculture, Water and the Environment *reviewed the assessment documentation that Boral provided to the NSW Government for the proposal.* (FOMR's italics, for emphasis.)

Ms Gowland continued: "That documentation indicated that areas of threatened ecological communities, including communities equivalent to the EPBC Act listed Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland and Littoral Rainforest and Coastal Vine Thickets of Eastern Australia *will be avoided.*" (FOMR's italics, for emphasis, again).

These statements to FOMR from your Department are demonstrably incorrect and misleading and as such subvert and undermine the EPBC Act, particularly its MNES provisions, so much so that you may be wrongly advised and consequently forego your legislative responsibility to give Ministerial approval of an action 'if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance'.

As a result of Ms Gowland's letter to FOMR, we are very much concerned that it appears that your Department has accepted, *prima-facie* and without any further investigation or research, a second-hand environmental assessment from a mining company proponent that has a huge vested interest in downplaying any and all environmental impediments to its proposed project.

Your Department and its officers should not have made any decision on such a flimsy basis about whether or not there had been a breach of the MNES provisions of the EPBC Act in this case and whether or not there was a need for Commonwealth Ministerial approval of the 'activity', ie. Boral Limited's proposed new Stage 5B sand mine at Dunmore, NSW.

However, it appears from your Department's letter to us of 23 December that such decisions have, in fact, been made.

FOMR is writing to you now both to point out that your Department's decision in this case has nearly certainly resulted in a breach of the EPBC Act (failure to refer to the Minister an action that is likely to have a significant impact on a matter of national environmental significance) and put the Department in danger of not detecting and preventing potential serious breaches of the EPBC Act in relation to the proposed new sand mine at Dunmore, NSW.

We will also provide you with the documentary evidence to support this.

To start with, your Department's reliance on the NSW Department of Planning is administratively defective and scientifically doubtful because of the NSW department's shortcomings in the process leading to Boral being granted approval for the new sand mines at Dunmore Lakes.

The evidence all points to the NSW department shepherding Boral's mining license application through the NSW planning bureaucracy, circumventing legalities/regulatory requirements along the way.

**Expert scientific advice available to FOMR also indicates serious deficiencies and inadequacies in the NSW department's environmental and other assessments of the Dunmore Lakes project, assessments based not on empirical research and independent investigation by the NSW department but nearly totally reliant on Sydney-centric desk studies and again, on Boral's own self-serving assessments – on which your Department has also inadvisably relied.**

During the first five months of 2021, following the NSW Independent Planning Commission's (IPC) approval in November 2020 of Boral's proposed Stage 5B sand mine, FOMR undertook a very intensive and detailed examination of all the data and information - including the environmental assessment on which your Department has more recently relied - generated by both Boral Limited and the NSW Department of Planning to support Boral's years-long application for the new mines at Dunmore Lakes.

The report's Summary of Conclusions (a – d, below) should be disturbing enough to prompt your officers to urgently read the full report (*Appendix 1*) and consider it against what Ms Gowland has stated re: MNES in the Department's 23 December 2022 letter to us.

“The unavoidable conclusions to be drawn from a reading of the following analysis (Appendix 1) are that:

- (a) There has not so far been any scientifically-based environment assessment, detailed or accurate, of the impacts of the proposed Boral Australia new sand mining pits in the Minnamurra River catchment, approved in November 2020 by the NSW government-appointed Independent Planning Commission (IPC);**
- (b) The Assessment report on the proposed new sand mining pits prepared for the IPC by the NSW Department of Planning, Industry and Environment (DPIE) – and on which the IPC said it relied almost entirely as the basis for its approval of the new mines - was a theoretical exercise conducted from the department's head office without the benefit of much needed peer reviewed fieldwork or scientific studies;**
- (c) The DPIE's 'Assessment' on which the IPC relied, was not formulated from original research, studies or fieldwork by the department but in large part comprised only selected summaries of a 25 April 2019 document entitled *Environmental Assessment of the Dunmore Lakes Sand Extraction Project Modification 2*, produced by consultants to Boral Australia to**

**support the company’s application for new sand mining pits in the Minnamurra River catchment and also relying extensively in key assessments only on broad ‘guidelines’ provided by NSW government agencies, and**

- (d) As a consequence, the two IPC commissioners did not have complete, balanced or scientifically rigorous information available to them on which to base their decision to approve Boral’s two new mine pits and it is reasonable to propose that their decision would have been different if they had been fully, properly and scientifically informed by DPIE or an independent environmental assessor.**

The full report of FOMR’s findings, which have been extensively published, is at *Appendix 1*.

**The past failure to refer to your Department the proposed complete destruction of the 100 to 400-year old Bangalay Sand Forest trees and their associated listed EEC of Littoral Rainforest, to make way for the Boral sand mine at the Stage 5B site at Dunmore, appears to be in clear breach of the EPBC Act and it is evident there will be continuing, serious breaches if your Ministerial approval for the mining activity is not sought, even at this stage.**

Boral Limited has told FOMR, as it has also asserted to your Department (as we know from Ms Gowland’s 23 December letter), that the two Commonwealth-listed EECs on its Stage 5B mine site will not be affected by its mine. In a letter to FOMR, Boral stated: “Swamp Oak Floodplain Forest (an EEC also listed under the EPBC Act) and Littoral Rainforest occur to the south east of the site but will not be directly impacted by the modification (the new Stage 5B mine)”<sup>2</sup>. (Note that Boral made no mention of indirect impacts which must also be included in any sound environmental impact assessment.)

However, there is no doubt, from applying the Australian Government criteria, that the new Stage 5B mine *will* cause impacts to those two Commonwealth-listed Endangered Ecological Communities which will potentially cause further breaches of the MNES provisions of the EPBC Act.

FOMR applied the Significant Impact Criteria for Critically Endangered and Endangered Ecological Communities, as set out in your Department’s publication, *Matters of National Environmental Significance, Significant impact guidelines 1.1*<sup>3</sup> and found that all seven impacts described would, in all likelihood, apply to the new Stage 5B mine at Dunmore and therefore, require your Ministerial approval for the mine to proceed.

The Commonwealth’s significant impacts criteria are easy to understand because they are intended as guidelines for “a self-assessment process, including detailed criteria, to assist persons in deciding whether or not referral may be required.”<sup>4</sup> They state:

*An action is likely to have a significant impact on a critically endangered or endangered ecological community if there is a real chance or possibility that it will:*

- *reduce the extent of an ecological community*
- *fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines*
- *adversely affect habitat critical to the survival of an ecological community*

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<sup>2</sup> Letter from Adnan Voloder, Boral Limited Planning and Development Manager (NSW and ACT), to Will Chyra, Chair, FOMR Inc, 29 June 2021.

<sup>3</sup> *Matters of National Environmental Significance – Significant impact guidelines 1.1 – Environment Protection and Biodiversity Conservation Act 1999*, Australian Government, Department of the Environment, Commonwealth of Australia, Canberra ACT, 2013, p.11.

<sup>4</sup> *Ibid.*, p. 1.

- *modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns*
- *cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting*
- *cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to: assisting invasive species, that are harmful to the listed ecological community, to become established, or*
- *causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or*
- *interfere with the recovery of an ecological community.*

On the evidence, every one of these criteria will cause or is likely to cause significant impacts on the Commonwealth-listed EEC, the SE Littoral Rainforest, in the proposed Boral Limited mine site, Stage 5B, at Dunmore, NSW.

Such adverse impacts on the Littoral Rainforest, and probably at least parts of the second Commonwealth-listed EEC at the site, the Coastal Swamp Oak Forest, are simply unavoidable if the mine proceeds because the Littoral Rainforest alone, in its various stages of maturity and ecological recovery after earlier European land use, is present practically throughout and also immediately adjacent to the proposal Boral mine site.

**Consequently, it is simply false to state, as Boral Limited has done, that the sand mining activities at the 5B site would be “avoidable”.** The mining ‘activities’ include dredging a very large open-cut mine, 27-metres deep, and after the two year life of the mine leaving it as a privately-owned lake only a couple of hundred metres from the pristine reaches of the Minnamurra River..

Additionally, it is completely inexpedient for an Australian Government department, particularly that responsible for the environment portfolio, to base on a second-hand, defective and theoretical environmental assessment from a company project proponent with the highest vested interests, any determination about both the notification and the impact of mining activities by that same company on a Commonwealth-listed Endangered Ecological Community.

As you know, under the EPBC Act, an action will require approval from the Minister if the action has, will have, *or is likely* to have, a significant impact on a matter of national environmental significance.

Significantly, the Department’s document states: “To be ‘*likely*’, it is not necessary for a significant impact to have a greater than 50% chance of happening; it is sufficient if a significant impact on the environment is a real or not remote chance or possibility.

“If there is scientific uncertainty about the impacts of your action and potential impacts are serious or irreversible, the precautionary principle is applicable. Accordingly, a lack of scientific certainty about the potential impacts of an action will not itself justify a decision that the action is not likely to have a significant impact on the environment.”<sup>5</sup>

On the basis of your Department’s own guidelines, then, Boral Limited’s Stage 5B mine at Dunmore will need your Ministerial approval to proceed.

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<sup>5</sup> *Ibid.*

As you are undoubtedly aware, substantial penalties apply for taking such an action (in this case proceeding with the Stage 5B sand mine at Dunmore) without Ministerial approval: civil penalties up to \$5.5 million or criminal penalties up to seven years imprisonment.

In order to investigate whether there would likely be indirect significant impacts on the two EECs in the Stage 5B mining area at Dunmore, indirect impacts that FOMR may not have previously considered, following your Department's 23 December letter, we asked one of our FOMR expert advisers to provide a report on whether or not there are any other factors which may count, directly or indirectly, as significant impacts, as defined by your Department's guidelines, on the Stage 5B Commonwealth-listed EECs.

There most certainly are and our adviser's report is at *Appendix 2*.

In summary, FOMR is hereby alerting you to an existing apparent breach of the EPBC Act by your Department (failure to notify an activity which may have a significant impact on an EEC) and asking you to immediately ensure that your Ministerial approval is required for the Stage 5B sand mining at Dunmore to proceed, thereby preventing any further breaches of the MNES provisions of the EPBC Act.

Please contact us if you require any further information or clarification of any matters contained in this letter.

We would also appreciate your advice at the earliest possible time that you have taken the actions necessary to restore our confidence, and that of the public, in the decision-making in relation to Boral Limited's proposed Stage 5B sand mine at Dunmore, NSW, and the protection of the two Commonwealth-listed EECs at the site.

Yours sincerely,

Will Chyra  
Chair

0419 633 191

## APPENDIX 1

### **INACCURACIES, INCONSISTENCIES AND OMISSIONS OF THE SEPTEMBER 2020 ASSESSMENT REPORT BY THE NSW DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT (DPIE) OF AN APPLICATION BY BORAL AUSTRALIA FOR A STAGE 5 SAND MINING OPERATION IN THE MINNAMURRA RIVER CATCHMENT, DUNMORE NSW**

by

**FRIENDS OF MINNAMURRA RIVER INC., 21 MAY 2021**

#### **SUMMARY OF CONCLUSIONS**

**The unavoidable conclusions to be drawn from a reading of the following analysis are that:**

- (e) There has not so far been any scientifically-based environment assessment, detailed or accurate, of the impacts of the proposed Boral Australia new sand mining pits in the Minnamurra River catchment, approved in November 2020 by the NSW government-appointed Independent Planning Commission (IPC);**
- (f) The Assessment report on the proposed new sand mining pits prepared for the IPC by the NSW Department of Planning, Industry and Environment (DPIE) – and on which the IPC said it relied almost entirely as the basis for its approval of the new mines - was a theoretical exercise conducted from the department’s head office without the benefit of much needed peer reviewed fieldwork or scientific studies;**
- (g) The DPIE’s ‘Assessment’ on which the IPC relied, was not formulated from original research, studies or fieldwork by the department but in large part comprised only selected summaries of a 25 April 2019 document entitled *Environmental Assessment of the Dunmore Lakes Sand Extraction Project Modification 2*, produced by consultants to Boral Australia to support the company’s application for new sand mining pits in the Minnamurra River catchment and also relying extensively in key assessments only on broad ‘guidelines’ provided by NSW government agencies, and**
- (h) As a consequence, the two IPC commissioners did not have complete, balanced or scientifically rigorous information available to them on which to base their decision to approve Boral’s two new mine pits and it is reasonable to propose that their decision would have been different if they had been fully, properly and scientifically informed by DPIE or an independent environmental assessor.**

#### **Background**

This issue arises from a determination by the Independent Planning Commission on 16 November 2020, endorsed by the DPIE exercising its Ministerial delegation.

DPIE says this determination, which gave consent to a new sand mining project (known as Dunmore Lakes - Modification 2), necessitates the destruction of 4.5ha of rare, ancient and high quality bird and animal habitat, being the Bangalay Sand Forest, comprising 100 to 400-year old trees.

This Bangalay Sand Forest, protected as an Endangered Ecological Community (EEC) under Regulations for which the Minister holds statutory authority, is to be cut and cleared to make way for the two new sand mining pits – with an operational life of only three to four years - in a sensitive river catchment area. Further, in addition to the destruction of the protected 4.5ha of Bangalay Sand Forest, other protected vegetation and potentially significant environmental matters were not subject to sufficient scientific assessment of the direct and indirect impacts of the proposed new sand mining.

These additional protected ecosystems include:

- the Critically Endangered SE Littoral Rainforest, protected under NSW legislation and listed under the federal *Environment Protection and Biodiversity Conservation Act* (EPBC Act);
- another Endangered Ecological Community (EEC), Coastal Saltmarsh, protected in NSW and listed as vulnerable under the EPBC Act and for which the NSW government has developed a “Save Our Species” recovery program to try to reverse the continuing loss of this high value EEC, and
- Swamp Oak Flooplain Forest (EEC) protected in NSW and listed as Endangered under the federal *Environment Protection and Biodiversity Conservation Act* (EPBC Act).
- DPIE also says that six fauna species listed as threatened under the NSW *Biodiversity Conservation Act* have also been recorded in the mining site to be cut and cleared: the Dusky Woodswallow, Varied Sittella, Southern Myotis, Eastern Bentwing-bat, Eastern Freetail-bat and the Grey-headed Flying Fox

The NSW Government’s Threatened Species Scientific Committee says that Littoral Rainforest in the NSW North Coast, Sydney Basin and South East Corner Bioregions is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival (including further fragmentation, clearing, mining and development) or evolutionary development, cease to operate. However, the IPC has approved potentially more of its destruction or degradation in its Dunmore Lakes determination.

In addition to the high risks to some of the most sensitive, protected and rare ecosystems/environments in NSW, this same IPC determination approving Boral Australia’s two new sand mining pits presents other potentially significant and adverse environmental impacts in the sensitive Minnamurra River catchment. Despite this and because DPIE conducted and approved an environmental assessment using legislation and regulations repealed 10 years ago, no Environmental Impact Statement (EIS) has been undertaken to determine the full extent and details of the various environmental impacts.

Indeed, the IPC has relied on a lower and repealed standard in order to support its determination. The DPIE also says the proposed clearing represents a very small proportion of the Bangalay Sand Forest EEC and would attract an offset obligation commensurate with the vegetation quality present across the site.

In recommending to the IPC the approval of the two new Boral sand mining pits, one of them only 160 metres from the tidal reaches of the Minnamurra River estuary, the department told the IPC that despite the destruction of a substantial area of a State-protected Endangered Ecological Community with all its many unique, high quality bird and animal habitats, together the destruction of other native vegetation and animal and bird habitats and the risks to adjoining additional Endangered Ecological Communities, also State-protected, ***“the proposed modification could be carried out in a manner that would not cause significant impacts to surrounding areas”***.



Clearly the Planning and Industry divisions of the department outweighed the considerations of the Environment division because the DPIE came out in the summary of its Assessment of the proposal on the side of the economics of the sand mining expansion – regardless of the planned total destruction of some of the rarest ecosystem in NSW.

The Department's assessment has also found that subject to the imposition of suitable conditions, the proposed modification could be carried out in a manner that would not cause significant impacts to surrounding areas.

The IPC said it approved the two new sand mining pits on the basis of the economics of the project, relying on DPIE's dismissal of the environmental destruction and other environmental risks as 'not significant impacts'.

FOMR and its advisers have closely analysed DPIE's assessment of the sand mining extension and found that the environmental assessment in particular is highly deficient and misleading, containing inadequacies and inaccuracies and serious incompleteness by omission.

FOMR has publicly stated that DPIE did not provide all the data and assessment information essential for the IPC to make a fully informed decision on whether or not to approve the sand mines and there is a good chance that the IPC may not have approved the mines if it had received all relevant assessment data and information.

The NSW government already has the regulatory power to stop the mines proceeding and to order a full and proper assessment under new and existing legislation.

This document is an attempt to identify some of the many gaps left by the NSW DPIE in its assessment of the impacts of the proposed new sand mining and its advice to the IPC and consequently, to raise serious questions about the effects that the shortcomings of the DPIE report may have had on the soundness of the IPC decision to approve the new sand mines.

## **INACCURACIES AND INCONSISTENCIES:**

### **Vegetation**

1. **The DPIE Assessment report of September 2020**  
**(<https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2020/09/dunmore-lakes-project-modification-2/referral-from-the-department-of-planning-industry-and-environment/dpie-modification-assessment-report.pdf>) clearly provided inconsistent and inaccurate and therefore entirely misleading information to the Independent Planning Commission (IPC) on the most important of all the assessment criteria – the impact of the proposed new mine pits on the natural environment of the Minnamurra River catchment.**
2. The most glaring inconsistency is the stark variation in DPIE's Assessment report of the numbers of 100-year-old to 400-year-old trees it states are in the State-protected Endangered Ecological Community of Bangalay Sand Forest that will be cut down and cleared to make way for a 27-metres deep sand mine pit, 5B.
3. Additionally, DPIE does not name the trees anywhere in its report, possibly in an attempt to de-emphasise the severity of the destruction of an ancient and rare, legislatively protected forest, classified by the NSW government as an Endangered Ecological Community (EEC) and with extremely high wildlife habitat values which cannot be replaced or substituted.

4. In the entirety of its report, the DPIE identifies the trees only as ‘Hollow bearing trees’ but as they are shown in the report as being located in the Bangalay Sand Forest EEC, they must be the ancient and rare Bangalay trees (*Eucalyptus botryoides*) because the only tree which grows hollows in Bangalay Sand Forest is the Bangalay.
5. The DPIE report contradicts itself about the actual numbers of Bangalay trees and ‘Stags’ (dead but standing Bangalay trees of immense value as bird and wildlife habitat) to be destroyed in the 5B mine site.
6. To exemplify the contradictions, the report’s Figure 6 on page 31 shows nine (hollow bearing) Bangalay trees and one Stag in the Bangalay Sand Forest on the mine site but on page 30, the report states that the 5B site includes “38 hollow bearing trees and 4 hollow bearing stags”. (Observations by FOMR advisers show that this higher figure is most likely closer to the correct number but still may be underestimated.)
7. To further exemplify the inaccuracies and inadequacies in DPIE’s Assessment report, particularly in relation to the all-important Bangalay Sand Forest, Figure 6 - *Bangalay Sand Forest EEC at the (5B) site* (p.31 of Assessment report) – shows eight “hollow bearing trees” which FOMR knows to be Bangalay trees, on the parts of the site which DPIE says (without substantiation) are areas of Poor condition and Moderate condition Bangalay Sand Forest but only one Bangalay tree in the area it says has Good condition BSE. Observations show that this mapping is yet another inaccuracy in DPIE’s report.
8. The fact remains, however, that the IPC was never accurately or fully informed by DPIE about the actual number of rare and protected trees which are to be cut and destroyed by preparation for the new sand mine 5B.
9. Despite this, the IPC in making the decision to approve the new mine sites, a decision which will ultimately result in the endangered forest’s destruction, says there will be “no long-lasting ill-effects to the environment”, echoing the conclusion of DPIE’s Assessment report that the new mines will have “only limited environmental impacts”, all based on the same inadequate and inaccurate DPIE report.
10. There are serious discrepancies over time in the reported number of Bangalay trees in the Bangalay Sand Forest Endangered Ecological Community to be cleared to make way for the proposed mine pit 5B.
11. DPIE’s Assessment report says the number of trees to be cleared is “38 hollow bearing trees and 4 hollow bearing stags’ (dead trees providing prolific wildlife habitat).
12. The original Boral consultant’s Assessment report of 25 April 2019 describes the trees to be cleared to make way for mine pit 5B as 11 Bangalay trees and 1 stag with a total of 31 hollows.
13. Boral’s Planning and Development Manager in a Zoom meeting in 2020 described what was to be removed as 38 hollow bearing trees in a 50 tree total. FOMR strongly believes that the 38 trees described simply as ‘hollow bearing trees’ are Bangalay trees (*Eucalyptus botryoides*), constituting a substantial part of the site’s protected Endangered Ecological Community, Bangalay Sand Forest.
14. DPIE’s Assessment report also does not mention other tree species which FOMR’s experienced advisers have also observed in the 5B mine pit site. These include several large mature Coastal

banksia (*Banksia integrifolia*) and several large mature Cheese trees (*Glochidion ferdinandi*) scattered though the clumps of Bangalay Sand Forest Endangered Ecological Community.

15. There are also numbers of other trees visible from a nearby hilltop, including some that look like Corkwood (*Duboisia myoporoides*). The DPIE Assessment makes no mention of any such diversity of trees or other vegetation.
16. The DPIE Assessment report also fails to point out to the IPC and other readers the importance of the Bangalay Sand Forest for animal and bird habitat. FOMR's advisers state that the number of hollows in the "38 hollow bearing trees" plus 4 stags must surely exceed 100 and certainly many more than the originally presented 31 hollows. However, a final or updated number of hollows cannot be found in any report.
17. Hollows – as wildlife habitat - are the most outstanding feature a Bangalay tree presents to this proposed mining site. Bangalay trees, which often live to more than 500 years, throw or discard more and more limbs as they age, thereby creating more and more hollows for bird nesting and refuge and for other wildlife habitat.
18. The manufactured bird nesting boxes which the DPIE Assessment report says can replace the cleared Bangalay trees at the mine site can only be seen as a very poor substitute, just on the basis of the time they last – about 30 years for the highest quality manufactured nesting box compared with the 400 years of the natural Bangalay.

## INACCURACIES AND INCONSISTENCIES

### Vegetation

19. **The DPIE Assessment report contains unbalanced statements in key sections, such as Terrestrial Biodiversity, which serve to minimise or de-emphasise the potential negative impacts of the proposed new mine pits, particularly 5B.**
20. For example, after stating that 4.5ha of a rare, ancient, endangered and protected Bangalay Sand Forest will be cut and cleared to make way for the 5B mine pit, DPIE says: "The proposed clearing represents a very small proportion of this EEC (Endangered Ecological Community), which is recorded all along the Eastern seaboard from Sydney to the Victorian Border and covers a total area of around 6,300 ha."
21. If the Bangalay Sand Forest is, as DPIE states, so prolific that we can afford to lose parts of it for sand mining, why is it protected under NSW law and listed, also under NSW law, as an Endangered Ecological Community (EEC)?
22. The DPIE's Assessment report conflicts directly with the reality of the true plight of the remaining endangered ecological communities of Bangalay Sand Forest as described by other agencies and advisory bodies of the NSW government itself.
23. Therefore, when referring the matter to the IPC, the DPIE did not advise that the clearing of native vegetation is listed as a Key Threatening Process under the NSW *Threatened Species Conservation Act (1995)* or that the Bangalay Sand Forests are 'likely to become extinct' directly as a result of the sort of destructive clearing that the preparation for the 5B sand mine pit would cause.
24. In fact, instead, DPIE stated in its referral to the IPC that the new sand mining operations:

*“could be carried out in a manner that would not cause significant impacts to surrounding areas.”*

25. Also unbalanced and misleading in DPIE’s report for the IPC is the emphasis on monetary compensation by Boral for destruction of the Endangered Ecological Community and several bird species.
26. DPIE told the IPC members through the DPIE Assessment report – and the IPC members in granting approval for the new sand mines agreed – that the State-protected endangered ecological community could be cut and cleared provided that the mining company, Boral Australia, paid compensation monies, as Biodiversity credits, into a NSW biodiversity Trust Fund.
27. Of course, dollars in a government trust fund are never going to compensate for or provide instant substitutes for 100-year-old to 400-year-old trees or their diversity of multiple ecosystems that currently support a wealth of rare habitat for animals, birds, plants, insects and microbes, many of them listed as endangered – not even following the mine pits’ operational closure after only three or four years. Community representatives were denied the opportunity to impart their own authoritative knowledge about the values of the proposed mine sites’ environments.

## **INACCURACIES AND INCONSISTENCIES:**

### **General/Administrative**

28. All indications are that DPIE prepared its Assessment of Boral’s new sand mines’ application entirely in head office in Sydney. There is no evidence of any field investigations or studies by DPIE or its consultants in the areas in the Minnamurra River catchment to be impacted by the new sand mines.
29. Apart from a site visit of less than a day by the two Independent Planning Commission government appointees, during which selected members of the community were permitted to accompany the officials, DPIE denied FOMR and other interested members of the community permission to visit and inspect the two proposed sand mine pit sites.
30. Even during the only visit by the IPC appointees, most of the time was spent at Boral’s existing sand mining site discussing sand dredging pit rehabilitation. Only about 25 minutes was spent by the IPC appointees and the accompanying officials and community members at the proposed two new sand mine sites and there was no time allowed for a walk around or close inspection of the sites, particularly 5B.
31. Leadership/direction of DPIE’s Assessment process/project changed no fewer than five times in the course of the assessment project following the announcement that the IPC would determine the Boral new mines’ application.
32. FOMR has the names of five DPIE officers who took over leadership of the assessment effort, including liaison with FOMR and other interested members of the community, before disappearing shortly after becoming familiar with their task and being replaced by a new officer. Each new officer had to start the leadership, knowledge-gathering and liaison/communications’ process all over again, before that person also disappeared and the entire learning and familiarisation process had to begin again with yet another new officer.

33. From FOMR's observations, the revolving door leadership of DPIE's Assessment effort militated against the sort of untrammelled communications which should normally be expected in such government assessment project processes, both between NSW government agencies and the community and between the government agencies involved, particularly DPIE, and local governments, scientific bodies and other authorities.
34. In FOMR's experience, it is apparent that such administrative dysfunction in DPIE's assessment process not only resulted in some of the many of the inadequacies, inaccuracies and omissions of the department's final Assessment report detailed in this FOMR analysis but nearly completely undermined any confidence that FOMR and other community members may have had in DPIE's ability to properly assess and provide balanced and informed assessment information.
35. Such information would have been clearly essential for the IPC if it were to make a proper, fully informed decision for or against Boral's new mines' application.

## **INACCURACIES AND INCONSISTENCIES:**

### **Scientific Rigour**

36. **DPIE's Assessment report lacks any of the scientific rigour normally expected in such assessments. For example, practically the entire report contains only assertions, statements and predictions *all* without any scientific referencing or substantiation.**
37. Take, for example, the primary conclusion in the Assessment report, the conclusion that went forward to the IPC:
- "The Department has considered all issues raised in submissions and assessed the impacts of the proposed modifications in detail in accordance with all relevant NSW legislation, policies and guidelines.*
- "Based on this assessment, the Department has found that the proposed modifications offer several benefits, including that they would provide:*
- *for the continued development and recovery of a State significant sand resource;*
  - *high quality construction sand products to the Illawarra and Greater Sydney regions; and*
  - *continuity of operations and employment of 10 operational staff and additional truck drivers at an established quarrying operation.*
- "The Department's assessment has also found that subject to the imposition of suitable conditions, the proposed modification could be carried out in a manner that would not cause significant impacts to surrounding areas."*
38. The department's last paragraph above completely ignores the complete destruction of an ancient, rare and endangered ecological community, Bangalay Sand Forest, and all the other components which make up this rare and endangered EEC, currently protected by NSW government legislation, to make way for the 5B sand mine pit.
39. And overall, after the Department's assessment of the proposal - not against scientific or environmental assessment criteria but against only "all relevant NSW legislation, policies and guidelines" – DPIE finds in favour of economics over and above the obvious strong environmental considerations:

40. DPIE concludes that the loss of an endangered and State-protected rare ecosystem together with the manifold threats to three other adjoining endangered ecological communities, is less important than • *the continued development and recovery of a State significant sand resource;* • *high quality construction sand products to the Illawarra and Greater Sydney regions;* and • *continuity of operations and employment of 10 operational staff and additional truck drivers at an established quarrying operation.*
41. The IPC approved the project on precisely these economic factors alone, quoting nearly verbatim the DPIE Assessment report in a news release on 16 November 2020 detailing the reasons for its approval of the new mine pits:

*“[T]he Application would extend the life of an established quarrying operation and would ensure the continued delivery of high-quality construction sand products to the Illawarra and Greater Sydney region,” it found. “[T]he continued development and recovery of a State significant sand resource is an orderly and economic development of the Site” and “will generate economic benefits for the region and for NSW and will also provide ongoing social benefits through continuing employment.”*

## **INACCURACIES AND INCONSISTENCIES:**

### **Vegetation**

42. In its Assessment report, the NSW DPIE ‘cherry picks’ a document titled *Environmental Assessment of the Dunmore Lakes Sand Extraction Project Modification 2* prepared for Boral Australia in April 2019 by its consultant, Element Environmental Pty Ltd.
- The ‘Environmental Assessment’ was an environmental assessment mainly in name only and (see later) conducted under NSW government guidelines designed to calculate the monetary compensation which must be paid to the NSW government by developers and miners who destroy native flora and fauna in the course of their projects.
43. This ‘Assessment’ drawn on by NSW DPIE in the preparation of its assessment for the IPC, used an incorrect and scientifically erroneous name for the Bangalay Sand Forest EEC. It described it as ‘Bangalay Old-man Banksia open forest on coastal sands’. The DPIE Assessment report also failed to name by species or even by common name the trees which form the Bangalay Sand Forest, the endangered ecological community which the department says will be destroyed to make way for the 5B sand mine pit. DPIE described them only as “hollow-bearing trees”. This has the effect of downgrading the importance of the Bangalay trees in the mining site area being assessed.
44. In its 16 November 2020 *Statement of Reasons for Decision* (to approve) the two new mining pits, the IPC stated that the Project posed only “limited environmental impacts” and only “residual risks” (p.17). It also makes no reference at all and does not recognise the very high habitat values of ‘Bangalay Sand Forest’ specifically. It refers only to “the removal of habitat trees, including hollow bearing trees.” (p.11)
45. The IPC’s apparent ignorance of the importance and value of the protected and endangered Bangalay Sand Forest in an IPC decision that would ultimately mean its destruction, obviously

arose from DPIE's failure in its Assessment report on the mining proposal to highlight the ecological importance of Bangalay trees and failure to provide accurate figures of the number of such trees and associated dead tree habitats.

## **INACCURACIES AND INCONSISTENCIES:**

### **Aboriginal Cultural Heritage**

- 46. The Aboriginal cultural heritage information provided to the IPC in the DPIE Assessment report is so summarised as to be seriously deficient, completely under playing as it does the evidence of the archaeological and cultural heritage significance of the proposed sand mining site 5B.**
47. It appears that DPIE did not undertake 'due diligence', as required, in its Aboriginal heritage assessment. The Boral consultant's 2019 archaeological report indicates that there are very rich archaeological deposits in the proposed mining area. This should have prompted further investigations over a wider range.
48. Additionally, the DPIE did not evaluate the impacts of the proposed 5B sand dredge pond at the 1818 Minnamurra Massacre site. Maps developed by Professor Lyndall Ryan, of Newcastle University, indicate that the dredge pond may correspond to the massacre site.
49. There are still Aboriginal people in the Illawarra who identify with the families killed or escaped from this massacre.
50. The Aboriginal community has been calling for the entire site to be recognised as a 'cultural landscape', and this has been completely ignored in DPIE's assessment.

## **OMISSIONS:**

### **Vegetation**

- 51. At no stage did the DPIE undertake an Environmental Impact Statement (EIS) of the areas in the Minnamurra River catchment which would be impacted by the proposed two new sand mining pits. In fact, DPIE also did not conduct even a detailed assessment based on field observations and studies. An EIS under State government guidelines has never been done.**
52. Instead, the department 'cherry picked' from an "Environmental Assessment" of the proposed new sand mining undertaken in April 2019 for Boral Australia by its consultant, Element Environmental Pty Ltd, leaving out much vital information that would inform the IPC of the real impacts of the proposed new mine pits and their infrastructure.
53. However, the Boral consultant's assessment on which DPIE relied in its report, was also not a rigorous assessment of the impacts of the proposed mine pits on the biological diversity of the area in which they would be located in the Minnamurra River catchment.
54. Rather, it was, as the consultant's report shows, only a paper or theoretical assessment:

*“Potential biodiversity impacts from construction and operation of the proposed modification were assessed in accordance with the Office of Environment and Heritage’s (OEH) (2017) Biodiversity Assessment Method (BAM). Ecosystem and species credits were calculated for proposed vegetation clearing in accordance with the BAM.*

*“Public databases, vegetation mapping and the BAM Calculator were used to predict the threatened flora and fauna species, and threatened ecological communities, which could exist in or frequent the modification site.”*

55. Note the words ‘calculated’, ‘predict’ and ‘could exist’. This was an exercise conducted in the office, a desk study only. There were no reported scientific studies or assessments or any fieldwork or site inspections undertaken.
56. Not only was it a theoretical exercise, it was conducted under a NSW government assessment method – Biodiversity Assessment Method (BAM) - developed in 2017 only to calculate how much developers or miners would have to pay in compensation to the government for destroying native vegetation and flora and fauna habitats in the path of their development of mining projects.
57. The BAM has since been discredited by a number of studies including one by the Nature Conservation Council of NSW which found that the scheme, which is also the subject of corruption claims, is ‘pushing more endangered species to the brink’.

## **OMISSIONS:**

### **Fauna**

58. The DPIE Assessment report lists *only* six of the probable 41 listed threatened or endangered fauna species which the NSW government’s biodiversity mapping system says are likely to occur in the 5B mining area.
59. It compounds this serious shortcoming in its advice to the IPC by attempting to downplay even further the importance of the faunal diversity of the 5B mining area to be cleared by stating:
- “Six threatened fauna species listed under the BC Act were also recorded during (earlier Boral consultancy) field surveys, being the Dusky Woodswallow, Varied Sittella, Southern Myotis, Eastern Bentwing-bat, Eastern Freetail-bat and Grey-headed Flying Fox. The biodiversity assessment identifies that none of these six threatened bird, bat and mammal species were recorded as using the area for breeding.”
60. In other words, the theoretical government biodiversity assessment manual may not have identified the area to be destroyed as breeding areas *per se*, but it is obvious that the threatened species were using it as their favoured habitat.
61. FOMR also has expert advice that one of the important bird species missing from DPIE’s report is the endangered Powerful Owl.

## **OMISSIONS:**

### **Flora**

62. According to the NSW government’s biodiversity databases, 20 threatened flora species may occur in the 5B mining site area to be cleared but the DPIE does not list *any*.



63. Owing to the scant detail of the DPIE Assessment report, FOMR believes it is easy to understand why species which it believes to be present, like *Zieria* are not listed. It is unlikely to be the rare and endangered *Zieria granulata* - Illawarra *Zieria* - or the very rare and critically endangered *Zieria ziebaeuerlenii* - Bomaderry *Zieria* - but is assured by its advisers that there is *Zieria* present. The only problem is, that with the scantiness of the DPIE Assessment report and DPIE's refusal to allow a site inspection by FOMR or other community members, it is not possible at this stage to determine which *Zieria* is on the proposed mine site to be cleared.

## **OMISSIONS:**

### **General**

64. There are numerous other questions on the merits of the project arising from DPIE's inadequate assessment of environmental impacts. These include:
65. Failure to analyse cumulative impacts with the existing proposal and the new proposed infrastructure;
66. Failure to address the impact of the proposal on the Minnamurra River, a high priority Groundwater Dependent Ecosystem;
67. Failure to consider the impacts of other legislation (ie. EPBC Act);
68. Failure to properly consider impacts in relation to groundwater for threatened species and habitats, and
69. Failure to properly consider the precautionary principle in relation to the broad range of direct and cumulative environmental impacts of sand mining on the Minnamurra River catchment.
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### **REPORT ON NEGATIVE ENVIRONMENTAL THREATS AND IMPACTS ON ENDANGERED ECOLOGICAL COMMUNITIES POSED BY CONSTRUCTION OF BORAL LIMITED'S STAGE 5B SAND MINE DREDGE POND AND ASSOCIATED INFRASTRUCTURE AT DUNMORE LAKES, NSW**

Apart from the obvious threats and negative impacts caused by the proposed total destruction of the irreplaceable Bangalay Sand Forest - and the Littoral Rainforest species associated with it – in mining site Stage 5B, there are a number of environmental threats that are likely to result from the construction of a deep freshwater sand mining dredge pond, as proposed, closely adjacent to the Minnamurra River.

#### **Changes to the River salinity and threats to Mangroves and native fish species**

It has been observed that significant increases in freshwater entering tidal rivers can alter the Mangrove ecosystem. This has occurred where Rocklow Creek, fed by water from Boral Limited's sand mining dredge ponds upstream at Dunmore, enters the Minnamurra River.

At Rocklow Creek, a housing development has resulted in increased run-off of freshwater into the brackish estuary of the Minnamurra River and had a significant impact on the existing mangrove community as the salinity has altered.

Grey Mangrove (*Avicenia marina*) requires more saline conditions than River Mangrove (*Aegiceras corniculatum*) which prefers less saline conditions.

So by changing the levels of salinity, we change the distribution of the Mangrove species

*Currently, freshwater percolates slowly through the existing Bangalay Sand Forest in the Stage 5B mining area before entering the river, and much of this water is taken up by the existing trees or held in suspension in the sand and organic matter.*

*This will no longer be the case when a deep pond of freshwater is constructed in the place of a healthy existing Bangalay Sand Forest.*

The Minnamurra River currently has a healthy self- sustaining population of the fish, Australian Bass (*Macquaria novemaculeata*) and is also known to support the Australian Grayling (*Prototroctes maraena*), which is listed as an endangered species in NSW.

Any changes to the Minnamurra River's salinity and biota are likely to have a detrimental effect on these two species also.

Bass require a salinity range of 8 to 12 parts per thousand of sea water for successful spawning and it is inevitable that in high rainfall events, such as those regularly experienced in the local area in the past 12 months, freshwater spilling from a Stage 5B dredge pond would prevent or modify Bass spawning in the Minnamurra River estuary.

Australian Grayling breed in the freshwater section of the Minnamurra River and their larvae then spend time developing in salt water. Consequently, they are likely to be affected by changes in water quality downstream of the normal freshwater zone of the Minnamurra River caused by the Stage 5B dredge pond.

### **Noxious Weed Invasion**

Based on observations of what has already occurred in the Boral Limited sand mine pond adjacent to Swamp Road, Dunmore, just to the north of the Stage 5B site, it is highly likely that the new sand mine dredge pond will be colonised by the declared noxious weed known as Alligator Weed (*Altanathera philoxeroides*) which has a devastating effect on aquatic environments by smothering the water surface and choking waterways.

Additionally, when the weed dies in winter, the decomposition of organic matter causes deoxygenation of the water which readily kills fish and other aquatic life.

This highly invasive South American weed can grow on land around the margins of ponds as well as on the main water body.

It is readily spread by water birds as seed or tiny fragments of the plant are carried on their legs from one pond to another.

There is a biological control in the form of the Flea Beetle present in the existing population but as it is dormant in the cooler months, it is not effective in controlling local infestations.

Efforts by the Illawarra Weed Control Agency to control the spread of Alligator Weed have been ineffective so there is no reason to think it will not become a major infestation of the proposed Stage 5B sand mine pond.

### **Invasion by Common Carp**

Based on observations of what has already occurred in Boral's existing sand mine pond adjacent to Swamp Road, it is highly likely that the Common Carp (*Cyprinus carpio*) will find its way into the Stage 5B pond and establish a massive population.

Carp eggs can be transported on the legs of water birds from one water body to another, as well as by humans deliberately translocating them for recreational fishing purposes.

Carp are known to be highly detrimental to our native aquatic ecosystems as they breed prolifically, consume huge amounts of food that native species rely on and destroy reed beds and other plant life by grubbing for food in water body bottom sediments. This feeding method also causes turbidity which reduces light penetration of the water thus affecting plant and animal health.

The Australian Government is currently spending millions of dollars on researching carp control methods.

The native species, Australian Bass, were introduced into Boral's existing sand mine pond adjacent to Swamp Road at Dunmore to control the Carp which entered this pond from an adjoining sand mine pond. However, the Bass have failed to control the carp, as has been the experience elsewhere.

In times of high rainfall, it is inevitable that Carp will swim out of the proposed Stage 5B dredge pond and enter the Minnamurra River. Once there, they would have a serious impact on water quality and native fish.

Given the fact that Boral's sand mining activities at Dunmore have been responsible for the proliferation of two highly invasive and environmentally destructive pest species, through the construction of previous dredge ponds, it is very concerning that the company now has approval to construct a new one (5B) where the same invasive pests are almost certain to establish.

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