From:	Warren Holder
To:	Jack Murphy
Subject:	Boral sandmine Submission
Date:	Thursday, 23 May 2019 8:50:37 PM

Dear Sir,
Please accept this submission from:
Gerroa Environment Protection Society (GEPS) 23/5/19
15 Burke Parade Gerroa NSW 2534

Application number: DA 195-8-2004 Mod 2
Dunmore Lakes Sand Extraction Project.

This submission has been produced for and endorsed by the members of Gerroa Environment Protection Society. The Society strongly objects to this proposal for the reasons listed below.

Lack of reliance on stated figures:

GEPS is concerned about the changes made to the proposal now on display compared to information provided to the neighbourhood briefing held by Boral on 10/4/19.

The briefing was attended by approximately 10 concerned residents some of whom represented key local groups within Kiama LGA. The groups represented were Minnamurra Progress Association, Friends of Minnamurra River and GEPS. In the presentation the depth of dredging for the proposed mine 5A was reported by Boral to be 8 metres deep. Then 15 days later we were able to read on line this depth had changed to 12m. The 5B depth went from the stated 10-12m to a massive 27m. I'm aware that Minnamurra Progress Association submitted their objections before the 25th April so at the time would have made their submission on the smaller depth figures.

It's both amazing and puzzling that the extra depth of dredging didn't increase the reported estimated gain in sand to be extracted in either of the sites.

Boral stated that the total area to be mined was 11.54 ha however the areas for mines 5A at 3.43 ha and 5B at 8.13ha total 11.58 ha. It may seem petty but our members feel the addition error reflects the overall poor quality of the supporting documentation.

The Vegetation to be cleared in site 5B and in the surrounding area of both proposed extraction sites is significant, rare and getting rarer by the day. There is a long list of EEC's nearby and on site but it's how the different vegetation types relate to each other that is so impressive and rare. Little wonder there are so many fauna species identified in the list Niche produced.

GEPS members are confident that several species the Niche report has missed in their report or their possible presence have been underestimated.

Offsetting - why so few credits given?:

When discussing possible offsetting arrangements there are species credit requirements for just three species:
• Southern Myotis (Myotis Macropus) – 19 credits;
• Barking Owl (Ninox connivens) – 30 credits; and
• Masked Owl (Tyto novaehollandiae) – 30 credits"

GEPS members are quite confident the Powerful Owl would be present and in fact favour 5B. They are known to be at 7 Mile Beach NP in the same habitat. In the event that the proposal proceeds further studies need to be done to ensure that offsetting arrangements truly reflect the losses. See appendix 1 for Powerful Owl details

Every species of flora and fauna has its role in maintaining ecosystem. We are seeing a massive rate of species extinction. Death by a thousand cuts. The patterns of clearing are simply not sustainable. You simply can't effectively offset the clearing of 200-300 year old trees like the Bangalay tree with its large nesting hollows. Many other trees don't even live to this age thus nesting hollows are only suitable for small animals. However the Bangalay tree can live to 500- 600 years old then they are a something very very special. To plant the site out with a tree that goes slowly on sand means that one of their outstanding qualities goes missing for a very long time period of time.

Insufficient monitoring of fauna:

I personally was left with a feeling of frustration by the Boral neighbour briefing held April 10th that not enough effort had been made when the fauna studies were done. When the Niche representative stated there were no Gliders present on the site or nearby I asked in amazement, "So no Sugar Gliders?" . The response was "yes they are there, but no Greater Gliders". "They are present at Seven Mile Beach NP" I replied. I then asked if there were any Blackbutt trees on site 5B, as the leaves and buds of this trees are one of the preferred sources of food for the Endangered Greater Glider. "Yes" was the reply.

The report states there are large nesting hollows in the mature Bangalay (Eucalyptus Botryoides) trees. Mature Blackbutt and or Bangalay can provide the required nesting hollows an animal of that size requires. I note the Niche report states there is a moderate chance the GG could be on site 5B. These factors ask me to question why this person was so quick to rule the Greater Glider out.

I also wish to point out that a one night survey on 10th May 2018 for a duration of 1 hour is not adequate to confirm the presence of this creature.

Clearing of Vegetation:

GEPS disputes the number of Bangalay trees and Stags to be cleared. For several years now GEPS has been conducting walks inviting members of the general public through 7 Mile Beach National Park and also the Crown lands to the north and South of the NP. The walks attracted people from all over the Municipality and are in areas of Bangalay Sandforest EEC and Littoral Rainforest EEC. Clearly they have inspired some local Minnamurra residents to walk on lands nearby. They have reported to me they love these walks and that the flora and fauna give them great enjoyment. What better way is there to improve their physical and mental health? These people who are now aware of what the very same trees look like have reported to us that they believe there are significantly more of the Bangalay trees than stated by the application, for example 11 Bangalay trees plus 1 stag on site 5B.

An onsite walk before submissions were due would have cleared this matter up. However this was not offered. Given the inability to walk on this site before the due date of this submission I feel it's only fair to have the matters listed above peer reviewed.

There is no doubt at all that the clearing of a significant number of mature Bangalay trees with at least 31 hollows and the associated vegetation must have a significant effect on the

overall habitat. The other trees I'm aware of in 5B are Blackbutt, mature cheese trees, coastal banksia and corkwood. In the map listed as figure 7.2 the small area at the extreme northern section listed as exotic shrub lands and the green section to the south just below it listed as in poor condition may not contribute a great deal of habitat however the next two sections to the south are listed as in moderate and good condition and if cleared they would have a significant impact on species who rely on the large nesting hollows. Animals such as the Greater Glider and the likely present endangered Powerful Owl have a significant reliance on large tree hollows. This is one of the Bangalay trees greatest assets.

Hydrology impacts:

If approved, a new hydrological effect from the effects of having a 12 m deep dredge pond at 5A so close ands an old KMC tip with known toxic waste issues is of great concern before and after fill has been added. Filling a dredge pond with fill of a different matter has to change the current hydrological regime. A detailed peer reviewed study must be undertaken on this matter. Monitoring should be done in all phases of dredging and also after the fill processes has been completed.

Climate Change effects:

From records kept by BOM and predictions from the science of Climate Change we are aware of the likelihood of increased times of drought followed by more erratic storms which can deliver very heavy flooding rains. Over time this effect will be ever increasing and thus has the ability to impact on the old Kiama Tip very nearby.

Valuing sand and making it last:

During the Neighbourhood briefing I asked if Boral used any slag from the Steelworks in their concrete. The reply was that no slag is used by Boral concrete however another company owned by Boral which is run as a totally separate business uses slag in their concrete. Clearly slag could be added to the mix with improvement to the product. It's very cheap. One would wonder why it isn't used where ever it could.

We question whether Boral have looked at other possibilities which would eliminate the need to destroy the area, make use of a date product from steel production and increase the life of our total sand reserves.

Appendix 1 - Powerful owl profile:

Powerful owl Scientific name: Ninox strenua
https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10562
Conservation status in NSW:Vulnerable
Commonwealth status: Not listed
Profile last updated: 01 Dec 2017
• The Powerful Owl inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest.
• The Powerful Owl requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well. The species breeds and hunts in open or closed sclerophyll forest or woodlands and occasionally hunts in open habitats. It roosts by day in dense vegetation comprising species such as Turpentine Syncarpia glomulifera, Black She-oak Allocasuarina littoralis, Blackwood Acacia melanoxylon, Rough-barked Apple Angophora floribunda, Cherry Ballart Exocarpus cupressiformis and a number of eucalypt species.
• The main prey items are medium-sized arboreal marsupials, particularly the Greater

Glider, Common Ringtail Possum and Sugar Glider. There may be marked regional differences in the prey taken by Powerful Owls. For example in southern NSW, Ringtail Possum make up the bulk of prey in the lowland or coastal habitat. At higher elevations, such as the tableland forests, the Greater Glider may constitute almost all of the prey for a pair of Powerful Owls. Flying foxes are important prey in some areas; birds comprise about 10-50% of the diet depending on the availability of preferred mammals. As most prey species require hollows and a shrub layer, these are important habitat components for the owl.

• Pairs of Powerful Owls demonstrate high fidelity to a large territory, the size of which varies with habitat quality and thus prey densities. In good habitats a mere 400 can support a pair; where hollow trees and prey have been depleted the owls need up to 4000 ha.

• Powerful Owls nest in large tree hollows (at least 0.5 m deep), in large eucalypts (diameter at breast height of 80-240 cm) that are at least 150 years old. While the female and young are in the nest hollow the male Powerful Owl roosts nearby (10-200 m) guarding them, often choosing a dense "grove" of trees that provide concealment from other birds that harass him.

Neither myself nor GEPS have made any reportable political donations over the past two years.

Warren Holder GEPS President

Sent from my iPad