SUBMISSION BY PORT STEPHENS KOALA & WILDLIFE PRESERVATION SOCIETY LTD (PSK) TO APPLICATION NO SSD 6395 BOBS FARM QUARRY

GENERAL COMMENTS

The Port Stephens Koala & Wildlife Preservation Society Ltd (trading as Port Stephens Koalas and abbreviated to PSK in this document) is the current embodiment of an organisation previously known as Hunter Koala Preservation Society (HKPS) that has been licensed by National Parks and Wildlife Service since 1987 as a wildlife rehabilitation organisation dedicated to koalas. PSK aims to provide the world best practice standards of care to sick, injured and orphaned koalas to give them the best opportunity to be returned to the wild, while supporting research and collaboration to preserve their habitat to ensure that future generations may continue to enjoy seeing wildlife in their natural setting.

General Assessment of the EIS

1. While the EIS is a substantial document and one which no doubt cost the applicant a substantial amount to have conducted, it has the general weakness of all such documents that are funded by the applicant. It contains a mixture of facts, selective facts and opinion. The latter two invariably are slanted to satisfy the applicant/client.

2. It is these areas that the EIS shows its principle weaknesses. Superficially the EIS may seem very convincing, but examination of the detail and particularly the propositions for remediation of the damage that would be caused by the sand mine that demand careful assessment. Many are rationalisations to favour the applicant. Others are offhand statements without proof or any evidence of how certain necessary or proposed remediation action can be achieved.

3. Therefore, any assessment of the report should engage a healthy amount of scepticism. This is supported by the fact that Port Stephens Council also has issues with this report and a previous one on which it relies heavily throughout, stating the following concerns in their letter to DoP dated 14 January 2019):

> *'A significant amount of inconsistencies and inadequacies were noted throughout the Environmental Impact Statement (EIS) (Tattersall Lander 2018) and Biodiversity Assessment (Wildthing 2018) in relation to biodiversity values for the proposed development.'*

'Incorrect threat listing status applied to EPBC Act listed species resulting in incorrect assessments of significance i.e. Koala (listed as Vulnerable, EPBC Act) has been assessed as Endangered under EPBC significant impact criteria and Tiger Quoll (Endangered, EPBC Act) has been assessed under Vulnerable species criteria.'

'Failure to assess the likelihood of occurrence and potential impacts on the threatened Greater Glider, which is predicted to occur within the locality. '

'The biodiversity assessment is considered inadequate to determine the potential impacts of the proposal on threatened species and their habitats.'

'Koala (Phascolarctos cinereus). The proposal site contains preferred and supplementary Koala habitat. However, Spot Assessment Technique (SAT) surveys were not conducted for Koala. '

'Inconsistent and unclear reporting of Koala habitat buffer zones to be established. Section 14.23 of the EIS reports that "a 50m buffer over supplementary habitat would also need to be put in place around areas of Preferred Koala Habitat" (i.e. the area of Swamp Sclerophyll Forest in the North west of the proposal area), however, site plans and Sections 14.13, 14.16 only report a 15 metre buffer to be retained around the area of Swamp Sclerophyll Forest.(3)'

4. The Wildthing Ecological Report contains very concerning statistics about the value of this habitat to the wildlife population:

A total of 1217 habitat (hollow-bearing) trees were identified within the study area as a result of a hollow-bearing tree survey. The vast majority of hollow-bearing trees were present within Smoothbarked Apple - Blackbutt - Old Man Banksia woodland on coastal sands assemblage. Many of these trees were considered to be significant as a result of their very large size as well as the variety and number of hollows they contained. Hollows were available for roosting or nesting avifauna species, arboreal mammals, reptiles and tree roosting microchiropteran bat species. (4)

Dated Studies

5. A further concern is the dated nature of a number of the supporting reports. Many are from 5 to 10 years old. Great caution needs to be exercised on such reports and surveys as much has happened in the last years in terms of surrounding development of the area and changes to biodiversity and very specifically the nature of the koala population. The applicant should be required to provide updates to relevant reports where circumstances may have changed since the original surveys.

OBJECTIONS TO PROPOSAL

Habitat Issues

6. The EIS admits repeatedly that the project will significantly affect a significant ecological corridor (p.66):

> *A total area of 38 hectares of existing vegetation will be progressively cleared, including 'the removal of approximately 25.90ha of key habitat' (as defined by the NPWS). The EIS identifies habitat on site that is suitable for 43 threatened fauna species, and notes that 'The proposal will result in a significant loss of habitat for a number of the addressed species' (p.65). This includes the direct and potential impacts or losses of … 'approx. 25.90 hectares of supplementary koala habitat and habitat for nine other threatened fauna species ' and … 'approx. 877 hollow-bearing trees'* (p.67)

7. PSK cannot see any scientific justification for the consultant's opinion that:

> '*The proposal will result in a reduction in habitat for both these two nationally threatened species however is unlikely to have a significant impact*' (p.67 – *our emphasis*). This is an unsupported conclusion and should be dismissed.

8. Suggestions that the long-term effect on the corridor will be minimal due to site rehabilitation are also not credible when a very large lake will remain in perpetuity, providing a permanent barrier to wildlife movements and gap in habitat.

9. The EIS also admits that the ecological corridor, 1.5km wide at the mine site, will be reduced by 600m (p.67) (they claim, reduced by a 1/3, but in reality by about 85% when the olive farm is included as it should be). Proposed mitigating measures include a 15m wide vegetated buffer (p66) which is clearly unlikely to have more than a token effect.

10. The EIS places great reliance on the fact that the majority of the site to be disturbed is only Supplementary Habitat for koalas. The attitude seems to be that as the applicant will avoid disturbing the small area of Preferred habitat to the North, completely eradicating the Supplementary Habitat is not a problem.

11. By its own admission, the proposed sand mine will require the removal of 25.90ha of native vegetation resulting in a significant reduction in Supplementary habitat within the local. Yet the CKPoM (S5.1) places such habitat in the category of requiring *'a high level of protection'*. S20 states that this habitat *'also requires protection albeit with less restrictions on development than Preferred Koala Habitat'*. While this would conceivably allow some development, 'less protection' has been interpreted to allow complete eradication. This is inconsistent with any concept of protection.

Incomplete Story on Koala Food Trees

12. The report's assessment of the site being of little or no value to koalas, stating that the only food trees were 19 E. robusta (Swamp Mahoganies) in the Preferred Habitat area is

misguided. The preferred food trees identified in Appendix 8 to Vol 2 of the CKPoM[1] for Port Stephens koalas are in fact a broader range and include the following:

Grey Gum (Eucalyptus punctata)
Scribbly Gum (Eucalyptus haemastoma or E. signata)
Brown Stringybark (Eucalyptus capitellata)
White Mahogany (Eucalyptus acmenioides)
Red Mahogany (Eucalypyus resinifera)
Tallowood (Eucalyptus microcorys)
Sydney Blue Gum (Eucalyptus saligna)
Sydney Peppermint (Eucalyptus piperita)
Blackbutt (Eucalyptus pilularis)
Spotted Gum (Eucalyptus maculata)
Grey Ironbark (Eucalyptus paniculata)
Narrow-leaved Red Ironbark (Eucalyptus crebra)
Broad – leaved White Mahogany (Eucalyptus umbra)
Flooded Gum (Eucalyptus grandis)
Small – leaved Peppermint (Eucalyptus nicholii)
Red Bloodwood (Eucalyptus gummifera)
Smooth Barked Apple (Angophora costata)
Broad – leafed Paperbark (Melaleuca quinquinerva)
Swamp She-oak (Casuarina glauca)

13. Of these, the highlighted species are identified in the EIS (p295) as existing on the site. This only underscores the high protection value accorded this Supplemental Habitat, but this was completely dismissed by the EIS and is indicative again of the tendentious reporting referred to earlier.

Impact on Koala Population

14. While the conclusion in the EIS on the limited evidence of the presence of koalas in the supplementary Habitat is reflects the data held by PSK, there are other factors to consider.

a. Many areas of koala habitat could be described similarly owing to predation by domestic dogs and the ever increasing encroachment of traffic in the area through development.

b. Koalas in supplementary habitat need large territories to support themselves.

c. Koalas are often unsighted until they approach areas of human occupation.

d. The undisturbed habitat marked for the proposed quarry provides part an essential koala corridor and its destruction and accompanying heavy traffic for the next 15 years will compromise the whole population of the Tomaree Peninsula by blocking off their migration route.

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[1] Source: Callaghan et al, 1994)

e. Koalas have been evident in the Bobs Farm area as far as our statistics go back. These statistics show a spike in koala rescues in 2015 due to a collaring study conducted by Niche's Dr Chris McLean. http://www.academia.edu/36853392/Koala_Impact_Monitoring_Nelson_Bay_Road_Upgrade_Bobs_Farm_to_Anna_Bay_Stage_3_Prepared_for_NSW_Roads_and_Maritime_Services

RESCUES AND FOUND DEAD							
year	Total	Vehicle	Danger	Other	Dog	Disease	Fire
1996	1	0	0	1	0		
2000	1	1	0	0	0		
2004	1	1	0	0	0		
2006	1	1	0	0	0		
2007	3	3	0	0	0		
2008	1	1	0	0	0		
2009	4	2	1	1	0		
2010	4	4	0	0	0		
2011	4	4	0	0	0		
2012	3	2	1	0	0		
2013	1	1	0	0	0		
2015	9	3	1	4	1		
2016	2	1	0	1	0		
2018	1	0	1	0	0		
Total	36	24	4	7	1		
%		67	11	19	3		
ALL KOALA DEATHS WERE CAUSED BY MOTOR VEHICLE							
NO SIGHTINGS INCLUDED - MANY WERE NOT KOALAS.							
SPIKE IN 2015 FOR COLLARING PROGRAM							

f. Not mentioned by Dr McLean's report were the koala deaths on Nelson Bay Rd in preceding years as the clearing was carried out for the road and more houses. PSK regularly finds dead koalas on surrounding roads due to motor vehicle strikes subsequent to even small areas of clearing.

15. Every koala is precious as numbers decrease alarmingly. To dismiss the proposed habitat destruction as only affecting a few animals is unacceptable. To lose more habitat, even secondary habitat is also unacceptable. The World Wildlife Fund estimates koalas face extinction in NSW by 2050 due to land clearing in a report released last month.

16. PSK has for some time become increasingly concerned about locating sufficient food trees to support the rescued and recovering Koalas and is needing to extend its reach to as far as Williamtown and Raymond Terrace. With every koala requiring, by DPI Standards for Exhibiting koalas, 1000 trees to sustain it, and considering the time it takes to grow such

trees to the point of being productive, the loss of any mature trees is serious loss. Further, PSK is frequently called to rescue koalas in the local area that have wandered far in search for food and are found in unsuitable areas where they would die of starvation. These animals have to be relocated within the local area to similar tree species in order for them to survive. This is becoming increasing difficult as habitat shrinks in a piecemeal fashion.

17. Consequently, the small area of preferred habitat in the mine lease makes the surrounding secondary/supplementary habitat more valuable and precious.

Impact Mitigation

18. The EIS makes a series of statements intended to mitigate the impact on koalas of the mine were it to proceed. These, while they seem superficially convincing, need to be examined in detail for their practicality. The following are the mitigation statements provided at p599 of the EIS, followed by PSK comment:

a. *'Specimens of Eucalyptus robusta are to be planted into the cleared areas of pasture/grasses within the far north of the study area (Lot 51) to enhance the adjoining existing area of Preferred Koala habitat within Lot 10 and to provide a better linkage to larger areas of preferred Koala to the north over Marsh.'*
(**PSK Comment:** This will occur too late to be of any value to existing koalas**)**

b. *'It is recommended that the sand mine disturbance area be cordoned off by the use of Koala barrier fencing to prevent any Koalas straying into the path of machinery/trucks or drowning in pools of steep banked surface water*.'
(**PSK Comment:** Will the remaining large pond be similarly fenced off and maintained?**)**

c. *'It is recommended that low speed limits and Koala warning signage be placed along the internal access roads to reduce the chance of vehicle collision.'*
(**PSK Comment:** This has been of limited effectiveness on public roads and is to a large extent ignored, in reality. Unlikely, this would be any different at the sand mine and the difficulty of large, loaded, articulated trucks in a dusty environment being able to stop to miss a koala is naively speculative.)

d. *'Dogs are to be controlled within the study area.'*
(**PSK Comment:** How is this to be achieved? Elsewhere in the EIS (p614) it caveats this claim by stating this 'will require co-operation from surrounding landholders'. Is this really practicable or just a token notion?)

e. *'Protection of remaining habitat/vegetation.'*
(**PSK Comment:** An easy claim – there won't be much left!);

f. '*Rehabilitation of habitat within extraction area*.'
(**PSK Comment**: see comment at sub-para a)

g. *'Reduction of* ongoing *mine impacts such as noise and artificial lighting'*.
(**PSK Comment**: This a meaningless statement. Evening early morning and night operations 6am to 6pm as proposed at p92 (when koalas are most active) require at a minimum but substantial degree of noise, exhaust fumes and amount of lighting that would be deeply disturbing to and confusing to an animal that has a very high noise, smell and light sensitivity. Chlamydia is part of the genome of Port Stephens koalas and the deadly symptoms are brought on by stress that koalas will be subjected to for a wide area surrounding the operations. Koalas in the subject area and surrounding area will also be subject to dust settling on their food trees to be readily and unceasingly inhaled and ingested which may then cause lung and digestion issues that could be considered to be at high risk for animals unable to understand the necessity or ability to wash their food before eating it.

h. *'Removal and non-use of barbed-wire within the study area'* (no comment).

i. *'Protection of the Koala during vegetation clearance*.'
(**PSK Comment:** Again, how this would be achieved is not specified. Typically the methods of clearance used in such operations are less than subtle or discrete).

j. *'Provision of compensatory habitat (Offsetting)*'.
(**PSK Comment:** See previous comments about disappearing local habitat. Out of area compensation is of little use to local koalas. Koala joeys are raised to become tolerant of eucalypt toxins by eating their mother's pap (special excrement). They are thereby acclimatised to the feed trees the mother eats. Adult koalas cannot simply be relocated. They are innately programmed to move around their whole territory over a period of months to feed from a variety of trees, find mates in neighbouring areas, and for their young to disperse. Koalas have a social structure that will be disturbed by the removal of this habitat. Moving koalas to other areas (translocation) further depletes the local population closer to the critical level. Translocation is a very costly and long process that is not always successful according to numerous reports.

k. *'Feral Vertebrate Pest Control; Tattersall Lander Pty Ltd 600'*(no comment) (PSK
(**PSK Comment:** Control of feral dogs will be particularly necessary for koalas forced to wander on the ground in search of food trees that no longer exist.)

l. *Weed Control*. (no comment).

19. The EIS concludes that:

'The proposal will result in a significant reduction of supplementary Koala habitat within the local area. As no areas of Preferred Koala Habitat or known Preferred Koala Feed Tree Species will be removed and given the lack of Koala sightings and low level of Koala activity, plus taking the recommendations into consideration the

proposed sand mine is unlikely to have an adverse effect on the life cycle of the species such that the local population of Koalas may be placed at risk of extinction.'

20. Again, this is a rationalisation that suits the proponent and not the local koala population. The 'non-extinction' statement is a remarkable criterion for determining whether a fauna disturbance operation should be allowed. If it were applied to the proponent's family, we suspect it would hardly be acceptable either.

Essential Development Compliance with CKPoM

21. Vol 2 of the CKPoM states at S4.3, p4,

'The general aims and objectives of the performance criteria for development applications (in accordance with Circular No. B35, DUAP) are:

i) *To ensure that the koala population in the Port Stephens LGA is sustainable over the long-term.*

ii) *To protect koala habitat areas from any development which would compromise habitat quality or integrity.*

iii) *To ensure that any development within or adjacent to koala habitat areas occurs in an environmentally sensitive manner.*

iv) *To ensure that acceptable levels of investigation are undertaken, considered and accepted prior to any development in or adjacent to koala habitat areas.*

v) *To encourage koala habitat rehabilitation and restoration.*

vi) *Maintain interconnection between areas of Preferred and Supplementary Koala Habitat and minimise threats to safe koala movements between such areas.*

vii) *To ensure that development does not further fragment habitat areas either through the removal of habitat or habitat links or through the imposition of significant threats to koalas.*

viii) *To provide guidelines and standards to minimise impacts on koalas during and after development, including any monitoring requirements.*

ix) *To provide readily understandable advice to proponents preparing development applications and for Council officers involved in the assessment*

22. The proposed development works directly contrary to each of these objectives, except the last, as follows:

a. i) The progressive depletion of potential Koala habitat with the excuse that adjoining or alternative habitat exists is a common tactic used by developers, which will eventually lead to the eradication of all habitat until the last applicant cannot make this rationalisation.

b. Ii) The proposal does not merely modify the habitat, but completely eradicates the substantial Supplementary Habitat.

c. iii) as per ii). The concentration is on the Preferred Habitat and completely ignores the Supplementary habitat.

d. iv) There is a heavy reliance on old surveys.

e. v) The destruction of some 26ha of koala habitat and more than a decade of mining precedes any effective restoration or rehabilitation. This is too late for the existing threatened numbers.

f. vi) The Supplementary habitat adjoining the Preferred Habitat would be all but completely destroyed.

g. vii) The proposal removes habitat directly contrary to this intent.

h. viii) Most of the proposed mitigation measures are impractical or likely to be ineffective considering the scale of disturbance and the nature of operation with continuous streams of large heavy vehicles (180 movements/day).

Site Rehabilitation

23. PSK fully shares the Tomaree Ratepayers and Residents Association (TRRA) concerns about the reality of any rehabilitation of the site. As stated by the TRRA, the EIS emphasises the proposed 'progressive' rehabilitation of mined areas, such that 'no more than three hectares be exposed at any one time' (p62). This obviously can't be the case once the wet mining phase commences there will no longer be any rehabilitation of the large flooded areas which will presumably remain in perpetuity.

24. The progressive rehabilitation is cited as a mitigating factor in relation to several adverse impacts including air quality (dust) and wildlife habitat loss.

25. PSK agrees with the TRRA that the assessment must consider a worst case scenario in which the promised rehabilitation is not carried out. The track record of many mining and quarrying projects in NSW and elsewhere suggests that operators often find excuses for not meeting their rehabilitation commitments and obligations, in extremis by winding up businesses or transferring ownership to entities without any resources.

26. Enforcement of conditions is often poor and fines when levied so small as to make them an acceptable business risk. Unless sufficient financial bonds are required to be lodged in advance to pay for all required rehabilitation in the event of financial failure etc., the assessment must judge the project on the assumption that the mined area will remain unimproved, with the consequent loss of amenity, habitat and other adverse effects.

Impact on other Fauna

27. The Koala is not alone in being threatened by this proposal and PSK is equally concerned at the threat it poses to the nine other threatened species the EIS has identified in the area (p593). This section contains some remarkably blasé statements to excuse admitted significant impact on the habitat by the proposal. It is instructive to critically review the assessments made by the EIS in relation to these species.

Haliaeetus leucogaster (White-bellied Sea Eagle);

28. To quote the EIS, *'The proposal will likely result in the incremental reduction of potential nesting habitat however, it is unlikely to result in the extinction of any local population of H. leucogaster.'* p594

29. This is a remarkable statement – where local non-extinction (an 'unlikely' assumption) is the threshold for any responsible environmentalist to concede to a development threat.

Petaurus norfolcensis (Squirrel Glider)

30. Again from the EIS, p 596:

> *'Approximately 1217 hollow-bearing trees were recorded within the study area during the hollow-bearing tree survey. Many of these trees where considered to be significant as a result of their very large size and the presence of suitably sized nesting hollows for the Squirrel Glider. Large areas of adjoining and nearby open forest are likely to contain similar densities and sizes of hollows. Suitable contiguous Squirrel Glider habitat occurs on private land north of the duel (sic) carriage way (four lanes) of Nelson Bay Road'*
>
> *'This gap was measured at a minimum of 40m. Trees on the side of the road Tattersall Lander Pty Ltd 596 should be sufficiently tall (above 25m) to allow Squirrel Gliders to glide above large trucks (~4m high) at ~6m in from a landing tree, and land ~1m above the ground to avoid predators (Ross et al., 2009). Although a number of trees along the roadside would reach over 25m in height considering the frequency of vehicle movements along this road this gap would represent a considerable barrier for the Squirrel Glider.*

31. This a transparently tendentious argument that would be laughable if not so serious. It grasps at straws in looking for excuses to justify this proposal. What allowances have been made for less than optimal conditions for the squirrel glider capabilities that would have been measured in a still forest environment. Optimum gliding conditions in this environment would be challenged by:

a. high ambient temperatures, particularly over the road (affecting the glide profile),

b. severe turbulence caused by large trucks and other vehicles over a very busy highway, and

c. the deterrence of traffic noise.

32. Even if the claimed 1 metre high tree landing were possible, dogs and cats (the primary predators of fauna), would have no difficulty reaching this landing height.

33. Further in the same section, the EIS claims:

'The proposal will result in a significant reduction in Squirrel Glider habitat occurring along the dune forests of Stockton Bight. However, considering the relatively large area of habitat the study area forms part of together with the given recommendations the proposed sand mine is unlikely to result in the extinction of any local population of the Squirrel Glider.

34. The comments made at para 29 apply equally to this statement.

Pteropus poliocephalus (Grey-headed Flying-fox);

35. From EIS p 596:

'The study area was considered to contain potential camp sites, particularly within denser areas of swamp forest dominated by the canopy species M. quinquenervia. The proposal will involve the removal of 25.90ha of seasonal foraging habitat resulting in a substantial reduction within the local area. No areas of habitat will become isolated for this highly mobile species. A number of mitigation measures have been given to reduce the impact of the proposed sand mine on the Grey-headed Flying-fox.'

36. A similarly specious statement in mitigation is presented for this species. Flying foxes have experienced serious losses in the Port Stephens and Hunter regions overall in recent years. Climate change with hotter summers has seen major colony collapses and decimations in the region during summer-times despite exhaustive efforts by Hunter Wildlife Rescue and other groups to provide relief and rescue services. Flying foxes have been driven by volunteers as far as Queensland for their rehabilitation.

37. The proposal is made in ignorance of the prevailing circumstances, again being sadly realised this summer. It relies on old data and again suggests, quite myopically, that this significant loss of habitat is OK because there is <u>probably</u> other habitat and therefore this proposal can say it won't cause extinction! As stated earlier, every previous and subsequent developer in these habitat areas has and will continue to claim the same until the last.

Hollow Dependent Microchiropteran Bats: Scoteanax rueppellii (Greater Broad-nosed Bat) & Falsistrellus tasmaniensis (Eastern Falsistrelle)

38. Again quoting the EIS on p597:

'The majority of the study area contains suitable hunting habitat for these microchiropteran bat species. A large amount of roosting habitat was also present with 1217 hollow-bearing trees being recorded within the study area. Many of these trees where considered to be significant as a result of their very large size and the presence of suitably sized roosting hollows for these microchiropteran bat species.'
'Approximately 877 hollow-bearing trees are proposed to be removed to make way for the sand mine footprint. This would represent a significant loss in roosting habitat within the local area.'

'The proposal will also result in a reduction in the quality of hunting habitat within the locality. Considering the recommendations and the presence of larger areas of

adjoining and nearby habitat along the vegetated sand dunes of Stockton Bight from Fern Bay to Anna Bay which contain comparable foraging and similar densities and sizes of tree hollows it is considered unlikely to result in the extinction of any local population of S. rueppellii or F. tasmaniensis.'

39. Despite these quite negative impact conclusions, the author again dismisses any concern casually by suggesting 'extinction is unlikely'. The criterion should be more in line with the provisions quoted at para 21 on the Essential Development Compliance with CKPoM.

Cave-dwelling Bats Microchiropteran Bats: Miniopterus australis (Little Bentwing-bat) & Miniopterus schreibersii oceanensis (Large Bentwing-bat)

40. Of this species, the EIS states at para 598:

41. One specimen of Miniopterus australis (Little Bentwing-bat) was captured within the study area during the harp trapping component of the survey. Calls not inconsistent with M. australis and Miniopterus schreibersii oceanensis (Large Bentwing-bat) were also recorded during the bat call survey. A previous bat call survey (Wildthing Environmental Consultants, 2009) conducted within Lot 10 in the far east of the study area also recorded calls not inconsistent with M. australis. The majority of the study area contains suitable hunting habitat for this microchiropteran bat species.

42. Similar arguments are lodged here that pass habitat responsibility to unsubstantiated, but assumed to be suitable, neighbouring land. Consistent with the irresponsible argument of 'this species can move elsewhere' so we can make money here.

Ninox strenua (Powerful Owl)

43. Last and of probably greatest concern of the reported threatened species is the statement made in relation to the Powerful Owl. (p598):

'Suitable hunting habitat for the powerful owl occurs within areas of Open Forest throughout the study area.'

'Nesting habitat was present in the form of large tree hollows, particularly within larger specimens of Blackbutt. The study area was likely to contain up to 200 potential nesting hollows for the Powerful Owl. Roosting habitat for this species is present within denser areas of foliage such as Swamp Sclerophyll Forest and thicker areas of Dry Sclerophyll Forest. The Powerful Owl occupies exclusive territories that can be greater than 800ha in size (Kavanagh, 2000) and would likely utilise the study area as part of a larger home range. The proposal will result in a significant incremental reduction in habitat for the Powerful Owl. Taking into consideration the relatively large amount of suitable hunting habitat within the local area the proposal is unlikely to disrupt the life cycle of this species of owl such that local extinction would occur.

44. The evidence is so compelling on the serious impact the mine would have on this precious endangered species that the EIS cannot even use is previous weak excuses or mitigation arguments to dismiss them. It merely accepts extinction as an unavoidable

consequence. More than any other statement, this analysis underscores the heavy-handed partiality of this EIS.

Impact on Local Community

45. A comment on this EIS would not be complete without mentioning the extensive negative impact of this mine on the local human population. PSK is aware of the many negative consequences in relation to the heavy vehicle traffic past the local school, the health threats posed by the dust on local residents' tank water, as well as the effects of dredging on the underground aquifer and water quality in the nearby Tilligerry creek, the general deterioration of lifestyle and increased dangers caused by traffic problems of a substantial increase of heavy traffic on Nelson Bay Road. PSK will leave the articulation of these problems to other local groups, but wishes to record its solidarity with their many serious concerns.

CONCLUSION

46. In conclusion, PSK is strongly opposed to the sand mine in question for reasons related to:

a. the consequent eradication of valuable Supplementary koala habitat,

b. the inadequate and unrealistic mitigation measures proposed during and after its operation,

c. the high probability of negative impact on other threatened fauna species, and

d. the unacceptable quality of life and health threats to the local community, which are inevitable.

RECOMMENDATION

47. Port Stephens Koala & Wildlife Preservation Society recommends that the Department of Planning refuses this application of a sand mine as unacceptable for environmental reasons.

Carmel Northwood
President, on behalf of
Port Stephens Koala & Wildlife Preservation Society Ltd