

8 July 2019
Ref No.: 1675-1599

The General Manager
Ballina Shire Council
PO Box 450
BALLINA NSW 2478

Attention: Ms Michelle Niles

Dear Ms Niles

Re: Epiq Lennox MP 07_0026 MOD 6 Super Lot 7

In regard to Council's comments on Modification 6 for Major Project Approval 07_0026, I provide the following information:

1 Impact of Public Infrastructure on Littoral Rainforest

Batters illustrated in the bulk earthworks plan are 'in close proximity' to the proposed buffer, however do not extend within the 10 m buffer area which is also known as Management Zone 1. The existing Littoral Rainforest community is actually located within the road reserve of Henderson Lane and does not occur on the site. As noted in the vegetation monitoring reports for this zone, the canopy of this community overhangs Management Zone 1 (estimated canopy cover of 15 percent overhanging). Minor native regeneration of Guoia, Tuckeroo and Native Ginger is occurring through the exotic pasture grasses which dominate this portion of the zone.

The required Tree Protection Zone (TPZ) in accordance with *AS 4970-2009 'Protection of trees on development sites'*, is required from the centre of the trunks of the trees on Henderson Lane. The average Diameter at Breast Height (DBH) for trees on Henderson Lane is 40 cm which would require a TPZ of 5 m (based on calculation in accordance with *AS 4970-2009*). The maximum DBH recorded for any tree in the road reserve is 1.1 m which would require a TPZ of 13 m in accordance with *AS 4970-2009* requirements. A conservative approach has been applied with the approved 10 m buffer, which was accepted by the Department of Planning as part of the concept approval.

2 Building Setbacks (Lots 51-54)

The 10 m buffer within Management Zone 1 is different from the situation that Council are encountering where residents are requesting for trees to be removed from Management Zone 2 which comprises established Littoral Rainforest and planted rainforest species within the private lots because as indicated in item 1 above, the existing Littoral Rainforest community is actually located within the road reserve of Henderson Lane (ie. is off-site).

It should also be acknowledged that the 10 m buffer was approved by the Department of Planning in the Concept Approval.

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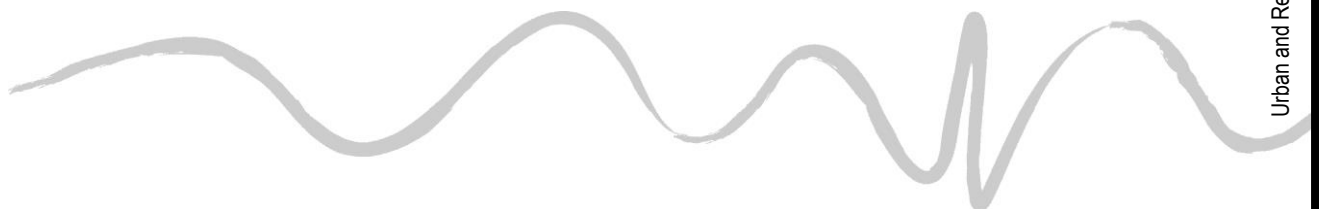
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I believe that the point of contention regarding this issue is that Council believe that the 10 m buffer area actually contains or will eventually contain rainforest and therefore the buffer should extend from the edge of the eventually restored rainforest. However the Littoral Rainforest community is located within the road reserve of Henderson Lane and despite weed control works within the 10 m buffer area (Management Zone 1) over the past five years, a closed canopy has not been achieved. This area therefore requires assisted regeneration in the form of planting rainforest species. No conflict currently exists.

3 Rainforest Restoration on adjoining land parcels

The Biodiversity Assessment Report (BAR) submitted for the proposed development focused on what is proposed within the Epiq site, not Council's adjoining land. The public road reserve is Council's responsibility. Prospective buyers could be educated to discourage disposal of waste/ illegal dumping and a TPZ could be established to Lots 1 and 18.

It is unlikely that the potential rainforest regeneration would increase the bushfire threat as it is located upslope and would have a short fire run. Review of *Planning for Bushfire Protection* (PBP) 2018 indicates that a potential Asset Protection Zone (APZ) of 9 m is required from upslope rainforest. This APZ could co-incide with the suggested TPZ.

4 Retention of Bush Nut Trees

Threatened Rough-shelled Bush Nut (*Macadamia tetraphylla*) are located within proposed lots 1 and Lot 51. Following discussions from a meeting held on 25 February 2019 with Council representatives Matt Wood and Ian Gaskill, it was suggested that approval be sought for removal of the threatened Rough-shelled Bush-nut (*Macadamia tetraphylla*) within proposed Lot 1 despite no direct impacts from the proposal. The Biodiversity Assessment Report concluded that the installation of the sewer line will not affect the health of the Rough-shelled Bush Nut on Lot 1 as the proposed sewer is 4.2 m away. The Tree Protection Zone, in accordance with AS 4970-2009 for the Rough-shelled Bush Nut on Lot 1 is 2.4 m (calculated from four stems of 10 cm DBH).

Mr Gaskill was of the opinion that a threatened tree within a private lot would ultimately be removed whilst in private ownership and Council do not have the resources to police retention of a single tree if included within a covenant. Therefore, a five-part test of significance has been prepared in accordance with Section 7.3 of the BC Act for removal of the Rough-shelled Bush Nut at Lot 1. This assessment concluded that removal of the subject Rough-shelled Bush Nut specimens would not result in a significant impact, given the retention of numerous other Rough-shelled Bush Nut at the site (refer to **Attachment A**).

Overall, it is essential that prospective buyers be educated regarding the proposed restrictions as to user of the proposed buffers and impacts of illegal dumping. Should you require any further information about this matter, please feel free to contact me.

Yours sincerely

GeoLINK



Veronica Silver

Senior Ecologist/ Planner/ BPAD Accredited (No. 16289)

Copy to: Clarence Property/ Newton Denny Chapelle

Attach: Five-part Test for Rough-shelled Bush Nut

Attachment A

- a) *in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,***

The Rough-shelled Bush Nut is a small to medium-sized, usually densely bushy, tree growing up to 18m tall. The leaves are 7 – 25 cm long and oblong or slightly lance-shaped. The leaf-margins are toothed and prickly. Creamy pink to purplish flowers hang in long strings among the leaves. The fruit is woody brown and globular, 2 – 3 cm in diameter. Flowering occurs August–October; fruit ripe in January. The species is confined chiefly to the north of the Richmond River in north-east NSW, extending just across the border into Queensland and typically occurs in subtropical rainforest.

Threatening processes for this species include:

- Clearing and fragmentation of habitat for coastal development, agriculture and roadworks.
- Risk of local extinction due to low numbers.
- Grazing and trampling by domestic stock.
- Fire.
- Invasion of habitat by weeds.
- Loss of local genetic strains through hybridisation with commercial varieties.
- Reduction of genetic diversity as a result of fragmentation.

Potential Impacts from the Proposal

The modified proposal would result in removal of one Rough-shelled Bush Nut from proposed Lot 1. The viable local population of the species includes trees, saplings and seedlings within the Littoral Rainforest located within the conservation zone and several trees within the road reserve north of the SL7. As such, the modified proposal would be unlikely to have an adverse effect on the life cycle of Rough-shelled Bush Nut in the locality such that a viable local population of the species is placed at risk of extinction.

- b) *in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:***

- (i) *is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or***
- (ii) *is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,***

N/A

- c) *in relation to the habitat of a threatened species or ecological community:***

- (i) *the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and***

One Rough-shelled Bush Nut will be removed by placing it within private ownership as a result of the modified proposal.

- (ii) *whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and***

One Rough-shelled Bush Nut will be removed by placing it within private ownership as a result of the modified proposal. This is an isolated tree which would not fragment or isolate the local population retained within the conservation zone.

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,

All threatened species are of importance however the removal of one Rough-shelled Bush Nut would not affect the long-term survival of the species in the locality.

d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),

No areas of outstanding biodiversity value have been declared in Ballina LGA.

e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

A key threatening process (KTP) is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species or ecological communities. The current list of KTP under the BC Act, and whether the Proposal is recognised as a KTP is shown in **Table A.1**.

Table A.1 Key Threatening Processes

Key Threatening Process (as per Schedule 4 of the BC Act)	Is the development or activity proposed of a class of development or activity that is recognised as a threatening process?		
	Likely	Possible	Unlikely
Aggressive exclusion of birds by noisy miners (<i>Manorina melanoccephala</i>)			✓
Alteration of habitat following subsidence due to longwall mining			✓
Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands			✓
Anthropogenic climate change			✓
Bushrock removal			✓
Clearing of native vegetation	✓		
Competition and grazing by the feral European Rabbit (<i>Oryctolagus cuniculus</i>)			✓
Competition and habitat degradation by feral goats (<i>Capra hircus</i>)			✓
Competition from feral honeybees (<i>Apis mellifera</i>)			✓
Death or injury to marine species following capture in shark control programs on ocean beaches			✓
Entanglement in or ingestion of anthropogenic debris in marine and estuarine environments			✓
Forest eucalypt dieback associated with over-abundant psyllids and bell miners			✓
Habitat degradation by Feral Horses, <i>Equus caballus</i>			✓
Herbivory and environmental degradation caused by feral deer			✓
High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition			✓
Importation of red imported fire ants (<i>Solenopsis invicta</i>)			✓
Infection by <i>Psittacine circoviral</i> (beak and feather) disease affecting endangered psittacine species and populations			✓
Infection of frogs by amphibian chytrid causing the disease chytridiomycosis			✓
Infection of native plants by <i>Phytophthora cinnamomi</i>			✓

Key Threatening Process (as per Schedule 4 of the BC Act)	Is the development or activity proposed of a class of development or activity that is recognised as a threatening process?		
	Likely	Possible	Unlikely
Introduction and Establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae			✓
Introduction of the large earth bumblebee (<i>Bombus terrestris</i>)			✓
Invasion and establishment of exotic vines and scramblers			✓
Invasion and establishment of Scotch Broom (<i>Cytisus scoparius</i>)			✓
Invasion and establishment of the Cane Toad (<i>Bufo marinus</i>)			✓
Invasion, establishment and spread of Lantana (<i>Lantana camara</i>)			✓
Invasion of native plant communities by African Olive (<i>Olea europaea L. subsp. cuspidata</i>)			✓
Invasion of native plant communities by <i>Chrysanthemoides monilifera</i> (bitou bush and boneseed)			✓
Invasion of native plant communities by exotic perennial grasses			✓
Invasion of the Yellow Crazy Ant (<i>Anoplolepis gracilipes</i>) into NSW			✓
Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants			✓
Loss of hollow-bearing trees			✓
Loss or degradation (or both) of sites used for hill-topping by butterflies			✓
Predation and hybridisation by feral dogs (<i>Canis lupus familiaris</i>)			✓
Predation by the European Red Fox (<i>Vulpes vulpes</i>)			✓
Predation by the feral cat (<i>Felis catus</i>)			✓
Predation by <i>Gambusia holbrooki</i> (Plague Minnow or Mosquito Fish)			✓
Predation by the Ship Rat (<i>Rattus rattus</i>) on Lord Howe Island			✓
Predation, habitat degradation, competition and disease transmission by feral pigs (<i>Sus scrofa</i>)			✓
Removal of dead wood and dead trees			✓

The proposal is characteristic of the KTP - clearing of native vegetation. The degree that the proposed modification would contribute to any threatening process is not considered likely to place the local population at significant risk of extinction.

Conclusion

It is considered unlikely that the local population of Rough-shelled Bush Nut would be placed at significant risk of extinction as a result of the proposed modification.

15 April 2019
Ref No.: 1675-1568

The General Manager
Ballina Shire Council
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Attention: Ms Michelle Niles

Dear Ms Niles

Re: Epiq Lennox MP 07_0026 MOD 6 Super Lot 7

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Mr Gaskill was of the opinion that a threatened tree within a private lot would ultimately be removed whilst in private ownership and Council do not have the resources to police retention of a single tree if included within a covenant.

Therefore, a five-part test of significance has been prepared in accordance with Section 7.3 of the BC Act for removal of the Rough-shelled Bush Nut at Lot 1.

a) in the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The Rough-shelled Bush Nut is a small to medium-sized, usually densely bushy, tree growing up to 18m tall. The leaves are 7 – 25 cm long and oblong or slightly lance-shaped. The leaf-margins are toothed and prickly. Creamy pink to purplish flowers hang in long strings among the leaves. The fruit is woody brown and globular, 2 – 3 cm in diameter. Flowering occurs August–October; fruit ripe in January. The species is confined chiefly to the north of the Richmond River in north-east NSW, extending just across the border into Queensland and typically occurs in subtropical rainforest.

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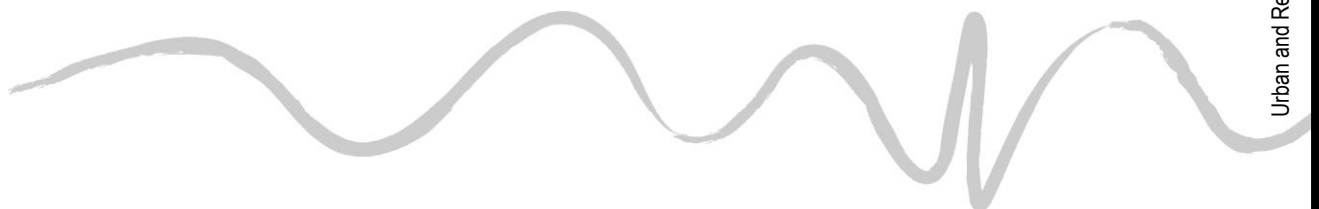
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Threatening processes for this species include:

- Clearing and fragmentation of habitat for coastal development, agriculture and roadworks.
- Risk of local extinction due to low numbers.
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- Fire.
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b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

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All threatened species are of importance however the removal of one Rough-shelled Bush Nut would not affect the long-term survival of the species in the locality.

d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly),

No areas of outstanding biodiversity value have been declared in Ballina LGA.

e) **whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.**

A key threatening process (KTP) is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species or ecological communities. The current list of KTP under the BC Act, and whether the Proposal is recognised as a KTP is shown in **Table G.1**.

Table G.1 Key Threatening Processes

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Alteration of habitat following subsidence due to longwall mining			✓
Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands			✓
Anthropogenic climate change			✓
Bushrock removal			✓
Clearing of native vegetation	✓		
Competition and grazing by the feral European Rabbit (<i>Oryctolagus cuniculus</i>)			✓
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Loss or degradation (or both) of sites used for hill-topping by butterflies			✓
Predation and hybridisation by feral dogs (<i>Canis lupus familiaris</i>)			✓
Predation by the European Red Fox (<i>Vulpes vulpes</i>)			✓
Predation by the feral cat (<i>Felis catus</i>)			✓
Predation by <i>Gambusia holbrooki</i> (Plague Minnow or Mosquito Fish)			✓
Predation by the Ship Rat (<i>Rattus rattus</i>) on Lord Howe Island			✓
Predation, habitat degradation, competition and disease transmission by feral pigs (<i>Sus scrofa</i>)			✓
Removal of dead wood and dead trees			✓

The proposal is characteristic of the KTP - clearing of native vegetation. The degree that the proposed modification would contribute to any threatening process is not considered likely to place the local population at significant risk of extinction.

Conclusion

It is considered unlikely that the local population of Rough-shelled Bush Nut would be placed at significant risk of extinction as a result of the proposed modification.

Should you require any further information about this matter, please feel free to contact me.

Yours sincerely

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Veronica Silver

Senior Ecologist/ Planner/ BPAD Accredited (No. 16289)

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