

Portfolio Committee No.7 – Planning and Environment  
Inquiry into Koala Populations and Habitat in NSW

Dear Madam Chair,

I respectfully request to table a document at the Hearing into Koala Populations and Habitat in NSW in Gunnedah at Smithurst Theatre Friday 13<sup>th</sup> December 2019 :

**‘Protecting all Koala habitat trees near watercourses and on footslopes or floodplains’** as a supplement to Armidale NPA’s submission as events have occurred since August 2019 that are impacting on koalas.

These impacts relate particularly to the following points in the **Terms of Reference**:

- identification of key areas of koala habitat on private and public land that should be protected, including areas currently at risk of logging or clearing, and the likely impacts of climate change on koalas and koala distribution, [SEP]
- the status of koala populations and koala habitat in New South Wales, including trends, key threats, resource availability, adequacy of protections and areas for further research,
- the 2016 land management reforms, including the Local Land Services Amendment [SEP] Act 2016 and associated regulations and codes [SEP] the effectiveness of State Environmental Planning Policy 44 - Koala Habitat Protection, the NSW Koala Strategy and the Biodiversity Conservation Act 2016, including the threatened species provisions and associated regulations, in protecting koala habitat and responding to key threats.
- The Private Native Forestry Code of Practice.

Thank you,

Lynne Hosking, 12 December, 2019

President Armidale National Parks Association

Document tendered by

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Received by

HELEN HONG

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Resolved to publish Yes / No



**Protecting all Koala habitat trees near watercourses and on footslopes or floodplains is essential** because:

- Koalas need to eat healthy leaves with sufficient nutritional value and to have access to water when they can't get sufficient moisture from the leaves. In droughts only food trees that can access lots of deep stored soil moisture will be able support koalas. The most important trees in the landscape for koalas now are food species along watercourses and on parts of floodplains with groundwater within reach of tree roots, or on deep soil at the foot of slopes where runoff collects. Other trees that are dense enough to provide shade are more likely to be found near watercourses.
- In heatwaves koalas, like us, need to consume more water. In both heatwaves and prolonged dry periods eucalypt leaves contain less water so koalas may need to access pools in creeks or other water sources. They need water close to food trees to minimise risks when going to find water or between water, shelter and food. Artificial water points don't provide food and can only be maintained in limited places.
- Koala food trees on hills and rocky areas are now either dead, dying or unhealthy due to drought and heatwaves. Most trees on hills and rocky areas that are still alive have lost many or most of their leaves and the remaining leaves have low moisture content and reduced food value so they will not be able to support koalas.
- The Ribbon Gum trees in Armidale are just one example of this. Ribbon Gum, *Eucalyptus viminalis*, was regarded as the principle koala food tree in this district. Please see the photos provided of Ribbon Gums that have died since August when submissions were lodged for this inquiry. Koalas used to occasionally be seen, or their scats were found, near these trees. Many of the trees on hills are now dead or dying. Photos taken on the same day 3km away near a small creek show all the Ribbon Gums there are still healthy including trees 100m from the creek where the soil is deep enough to store moisture.
- A vast array of other species will also be affected by the death or poor health of trees during the current drought or due to more intense heatwaves and droughts in the future. Koalas are a valued indicator of a much wider problem.
- Trees in mid-slope positions are now also dying so this is not just a rocky hilltop problem – see photo
- Most of the trees that have been retained on the tablelands or west of the Great Dividing Range are in rocky areas and many of these trees are not koala food species. These bushland areas are valuable for many reasons and many species, but a bit less useful for koalas than for some other species. Only a small proportion of the trees in these areas have sufficient access to moisture to be any use to koalas during droughts. There should be no expectation that koalas will survive in these areas – they are important between droughts enabling koalas to move away from watercourses, giving the trees along watercourses a chance to recover from defoliation by koalas, and enabling some increase in koala populations. On hills where many of the food trees have died it will be decades before enough food trees grow back to enable koala populations to increase. Local populations could go extinct first. If they do recover at all, Koala in populations in areas that do not have food trees along watercourses are likely to die out after some future drought.
- All of the different trees that Koalas eat should be protected. Koalas need to be able to change their diet not rely on one or two local species, especially when some tree species suffer more than another from drought or insect attack as has happened in the Armidale area. The original SEPP 44 species list is woefully inadequate and should be replaced by a comprehensive list of food and habitat species.
- **Trees in the fertile deeper soils, notably near watercourses, are rare and valuable resources which should be given the highest level of protection – further clearing in these areas should now be totally banned** both in relation to development applications and other clearing. Offsets are no substitute. This is needed for the survival of many other species as well as koalas. Scientific advice should be used to define the areas where complete protection is needed – not just trees on creek banks but **all the native vegetation that has access to deeper moisture in droughts**. Please also increase protection elsewhere.

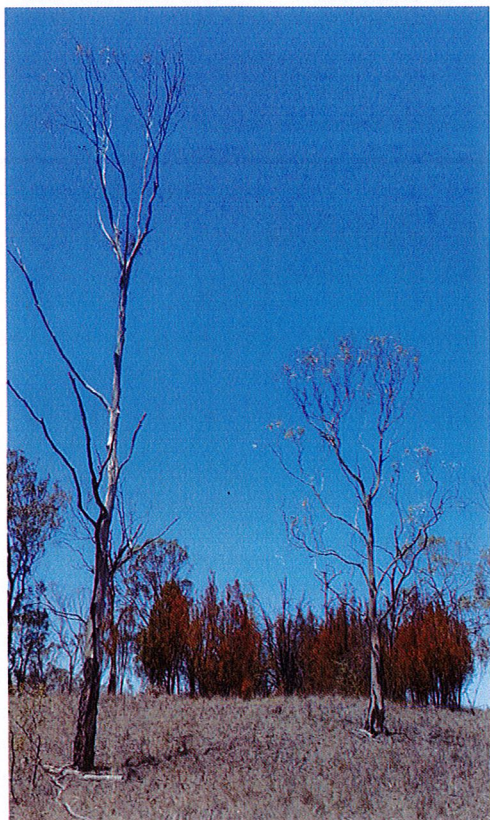
Report prepared by Kate Boyd, Bachelor of Science; Diploma of Natural Resources;  
Committee member of Armidale National Parks Association.

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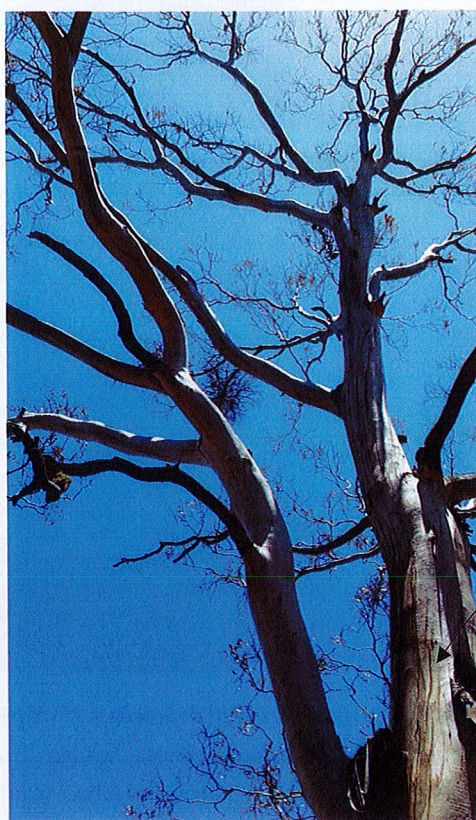
12 December 2019



Photos of Ribbon Gums in an Armidale bushland reserve that used to be visited by koalas  
taken December 2019 by Kate Boyd

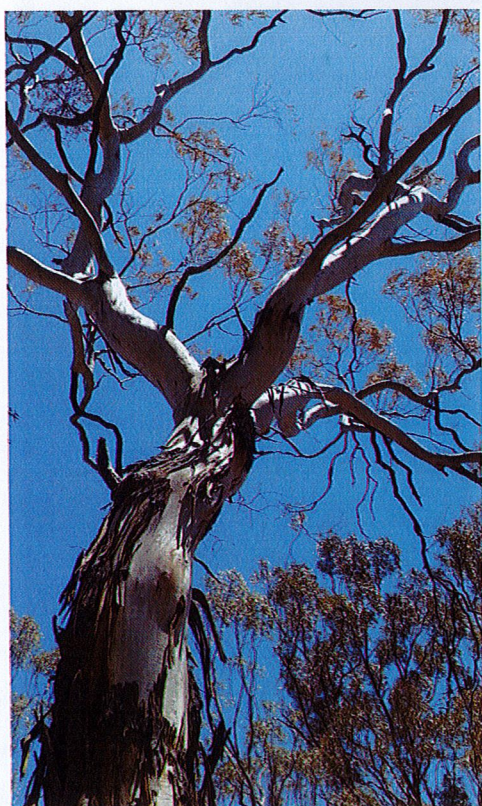


Ribbon Gums on hill dead, dying or thin.



Deep cracks  
through  
bark due to  
trunk dying  
from lack of  
water

Tree on hill that died following driest winter on record



Ribbon Gum on upper slope recently died  
Yellow box foliage lower right still alive.



Ribbon Gums on midslope dying, Blakely's Red  
Gum behind main tree still OK; both species thin  
but alive in background along local drainage line.





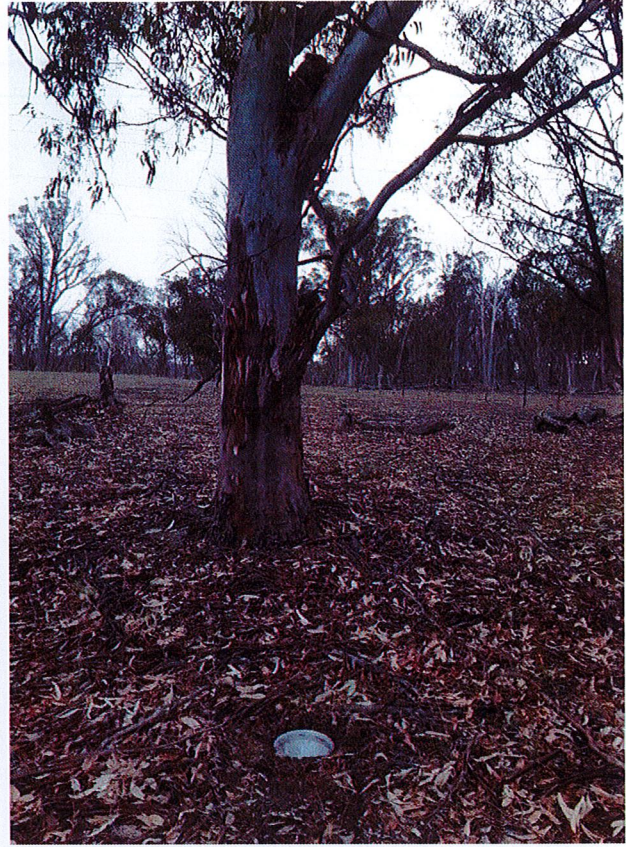
Ribbon Gums, *Eucalyptus viminalis*, along a small creek in a different Armidale bushland reserve: note thick crowns of foliage suitable for koalas and shade where koalas could survive heatwaves and drought – they have been recorded nearby. Existing reserves alone are too small to sustain a population.



Ribbon Gums with a few smaller Blakely's Red Gum in a footslope position about 100 from the above photo. Note these all have healthy crowns despite going through the same record drought conditions as the dead trees in the other hilltop reserve. Both photos by Kate Boyd December 2019



Photographs of a koala surviving at Sunnyside 15 km from Armidale, taken by John Lemon 11/12/2019. John reports "Very dry out there with many dead and dying trees. We're in uncharted territory regarding loss of vegetation and habitat due to this ongoing drought. Combined with the bushfires, the damage to native flora and fauna is just awful" 11 December 2019



The Sunnyside Travelling Stock Reserve is an invaluable refuge for many species of wildlife including koalas because it includes diverse native vegetation along a creek and on the adjoining creek floodplain and footslopes. While it is possible to supply drinking water it is not possible to supply food to the koala unless the remaining food trees survive.