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**NSW REVIEW SHORT COMINGS.**

**1 Failure to include experienced koala scientists**, NGOs and community organisations involved in research, monitoring, caring for or protecting koala in the review process.

Noting: -

a) *ANZECC National Koala Conservation Strategy (1998) recognises that community input and involvement is crucial to the conservation of koalas*

b) *From National Koala Conservation & Management Strategy 2009-14*

*The successful implementation of the strategy depends on sustained commitment by a variety of stakeholders, ongoing and timely exchange of information between managers, researchers, and community groups, and regular monitoring and reporting on progress to enable managers to alter their plans where required.*

*Stakeholders who will be involved in or responsible for actions under the plan include:*

- *Australian, state and local governments*
- *research scientists*
- *non-government organisations*
- *zoos and wildlife parks*
- *community groups, and*
- *individual members of the public.*

**2 Failure to acknowledge undertakings** made by NSW Koala Management Plan 2008 as outlined in the National Koala Conservation & Management Strategy 2009-2014 p. 14

1. *In November 2008, the then Minister for the Environment and Climate Change, the Hon. Carmel Tebbutt, released a state-wide recovery plan for the koala. The plan was prepared by the New South Wales Department of Environment and Climate Change (now the New South Wales Department of Environment, Climate Change and Water). The recovery plan outlines actions necessary to aid the recovery of koala populations and provides a framework for local koala recovery efforts throughout the state. This plan is consistent with the National Koala Conservation and Management Strategy.*



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*The New South Wales Department of Environment, Climate Change and Water has undertaken a state wide survey of koalas, published in 2009. This work is a precursor for further studies on:*

- *population dynamics that will look at koala populations, their rates of breeding, causes of mortality, home range sizes and movements across the landscape, habitat selection, tree selection, and assessment of threats in each location, and*
- *auditing previously implemented recovery actions in order to tailor future state programs to be more effective.*

**NOTING: No details or evidence of state wide koala survey published in 2009 has been located nor is any 2009 survey cited in the references provided by the review.**

**3. Questionable inclusion bureaucrats from RMS and Forestry- Conflict of interests.** Given the experimental nature of the RMS ring barking and collaring feed and shelter trees relevant to the Ballina Koala population, and the total inability of the public to challenge any environmental conditions of a State Significant Infrastructure, the inclusion of RMS bureaucrats without community input or representation is a matter of concern.

**4 Failure to identify where estimated population of 36,000 is located.** *No details of regions or locations provided. This failure to identify the source of greatly inflated population numbers is unacceptable.*

**5 Population estimates are in conflict with Federal Government estimates and current research.**

**Inconsistencies in Koala Population Estimates - Lack of any standardised methodology**

a) *Estimates cited by the review of koala population of NSW are questionable. According to the review:-*

*In 2012, Adams- Hosking et al. (2016) estimated that Australia had approximately 330,000 koalas, with an estimated 36,000 in NSW. For NSW, this study estimated a 26% decline over the past three koala generations (15-21 years) and the next three generations.*



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- b) *Examining the Adams-Hosking paper on population trends, the NSW bioregions percentage of uncertainty in estimates ranges from 72-100%.*
- c) *The Adams-Hosking et al (2016) demonstrates that the mean population of the NSW North Coast is 8367 but the average of lower bounds is 4048. The percentage of uncertainty is recorded as 72% which is unacceptable as are the bioregion uncertainty estimates.*
- d) *The Federal Government Species Profile and Threats Data base states :-*

*“ The NSW population was approximately 31,400 in 1990 and 21,000 in 2010 ( an approximate 33% decline) (TSS 2012p).*

*This statement’s relevance to the 1990 estimate is contradicted by the following:-*

- e) *While there is considerable disagreement about the total number of koalas in NSW, estimated between 1,000 and 10,000 animals (ANZECC 1998).fg) A survey of koalas in 1986–87 found that the koala had disappeared from 50–75% of its historic range in NSW (Reed et al. 1990).*
- f) *In February and June, 2012, the Australian Centre for Ecological Analysis & Synthesis (ACEAS) under the title :- ‘ Conserving Koalas in the 21<sup>st</sup> Century: synthesising the dynamics of Australia’s Koala populations ‘ convened two workshops to “ provide robust science to inform sustainable koala conservation and management.” The Working group consisted of key koala researchers in Eastern States where koalas occur including Associate Professor Jonathan Rhodes who is a member of the NSW Chief Scientist’s independent review panel.*

*Under Major Findings, the following statement is made:-*

*.. the NSW North Coast declining by 50%. In nearly all other New South Wales bio-regions, koalas were estimated to have declined by levels ranging 4%-50%.*

- h) *McAlpine et al. 2015<sup>1</sup> “Northern populations, especially in New South Wales (NSW), had shown the greatest decline.*

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<sup>1</sup> McAlpine et al. 2015 Conserving koalas – A review of the contrasting trends, outlooks and policy challenges. Biological Conservation 192



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i)\* *NSW KOALA RECOVERY 2008 contains the following estimate of koala population.*

*Appendix 4: Biological scores used for evaluation of the status of the koala in New South Wales*

*From Lunney et al. (2000b)*

*Population size – 12 (1,001 to 10,000 individuals)*

*Population trend – 13 (population size known to be rapidly declining in specific regions)*

*Distribution size – 1 (up to 50% the area of NSW)*

*Distribution trend – 16 (area has declined by 51–75%)*

j) *NSW National Parks Association:-*

*Habitat loss and fragmentation due to land clearing and urban development has already resulted in koalas disappearing from 75% of their former range in NSW and numbers have plummeted by a third in just twenty years.*

k) *Lismore City Council Koalas are under considerable threat from rapidly expanding urban centres, which threaten habitat occupied by koalas. In NSW it has been estimated that less than 15,000 individuals remain.*

6. **Failure to adequately address habitat loss and clearing of native vegetation** – a key threatening process under the Threatened Species Act.

a) *APPENDIX 1 – National Koala Conservation & Management Strategy.*

*Category 1 Habitat identification and protection*

*Habitat loss and fragmentation is the primary threat to koalas in key parts of their range (for example south-east Queensland). In such key areas, there is enough information to enact quickly measures to conserve koalas, and these should be taken as a matter of urgency. The pressure is immediate and the context well enough known that the opportunity cost of waiting for more research is too high, and appropriate direct action can be taken.*



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b) *In 2016, the koala was upgraded to Vulnerable on the IUCN Red List. Major threats to the koala were expressed as:-*

*'Current threats to this species include continued habitat destruction, fragmentation, and modification (which makes them vulnerable to predation by dogs, vehicle strikes, and other factors), bushfires, and disease, as well as drought associated mortality in habitat fragments.*

b2) ***IUCN Species Survival Commission:** Destruction and degradation of Koala habitat is particularly prevalent in the coastal regions of Australia where urban development is rapidly encroaching on Eucalyptus forests. In addition, habitat fragmentation limits Koalas' ability to disperse to suitable areas and can intensify inbreeding problems.<sup>2</sup>*

c) ***NSW Koala Management Plan 2008 –***

*This Koala Recovery Plan outlines the current status of koalas in NSW, identifies the threats currently acting on the species, details current efforts to conserve koalas and outlines the actions which are required to aid the recovery of the species. **The loss and degradation of habitat is the most significant threat facing NSW koala populations.** With the exception of those in the central west of the state, the largest koala populations are in coastal areas north of Newcastle where habitat is under increasing threat from urban development.*

*d) **First Implementation Report to NRMCC relevant to National Koala Conservation and Management Strategy 2009-2014** The principal threats remain land clearing, habitat fragmentation, fire, dogs, cars and climate change – especially drought.*

*e) Habitat loss remains the most significant threat to koalas throughout their entire distribution (Crowther et al 2009); Lunney et al. 2000; McAlpine et al. 2006; Melzer et al 2000; Reed and Lunney 1990). Habitat loss is considered to be the key cause of declining koala populations (Crowther et al.2009; Lunney et al. 2007; Reed and Lunney 1990*

<sup>2</sup> IUCN Red List of Threatened Species, Koalas and Climate Change.





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- f) **Failure of the Chief Scientist's Report to address the report:** 'Eco Logical Australia 2016. Potential Vegetation clearing under Proposed NSW LLS Act Equity Code – Analysis Paper. Prepared for WWF-Australia.'

*Over 2.2 million hectares of woody vegetation which has been identified as either being known or likely koala habitat could potentially be cleared under the equity code of the new land management framework. This equates to about 13% of the mapped woody vegetation across the State.*

*Local government areas with the greatest potential impact to koala habitat include Walgett LGA in the North West LLS; Warrumbungle LGA in the Central West LLS; the northern LGAs of the Northern Tablelands LLS and the Clarence Valley LGA in the North Coast LLS.*

- g) **The NSW National Parks Association states:** -

*Most of the remaining high quality koala habitat lies in state forests and on private land where clearing of native vegetation and logging is leading to the removal of vital food and habitat trees. In the future the changing climate will serve to further exacerbate these threats.*

7. **Failure to highlight the significance or adequately address climate change impacts** – a key threatening process under the Threatened Species Act .

- a) **IUCN Red List:-** *Climate change is expected to lead to an increased rate of population reduction over the next 20-30 years, and the impacts of other threats will magnify over this period.'*

- b) **National Koala Conservation and Management Strategy -**

**Action 6.03 on koalas.**

*Research agencies, universities, Australian, state and territory governments, local government, non-government organisations, community groups.  
1–2 years; commence in year 3 and run for 3–5 years.*

***Identify directions for research on effects of climate change***

*As noted at 1.09 climate change is a complex process that carries with it significant implications*



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for koalas. These effects may be in the form of altered drought and fire regimes, and more directly through the effects of carbon dioxide on eucalypt leaf chemistry. The additional stresses imposed may further exacerbate existing problems of habitat loss etc. Due to the complexity of the problem we must enact both short-term precautionary and anticipatory measures, but also conduct research to better understand, and adjust, these management approaches.

**8. Failure to address forest dieback – a key threatening process under the Threatened Species Act.**

Dieback (decline) is evident in areas supporting intensive agricultural development, such as west of Gunnedah (M. Smith, NPWS, pers. comm.) and in the upper Namoi catchment (Woodford 2000). Pahl et al. (1990) reported that most primary koala food trees in NSW are affected by dieback, specifically flooded gum and swamp mahogany on the north coast (J. Turbill, NPWS, pers. comm.) and forest red gum and grey box in the Hunter catchment (Hunter Trust 2001). Dieback as a result of bell miners (chronic decline and irruption of psyllids and bellbirds) is also apparent in areas of koala habitat in the South Coast KMA (Jurskis and Turner 2002) (C. Allen, NPWS, pers. comm.) and is an increasing threat in north-eastern NSW (J. Turbill, DECC, pers. comm.). The impacts of tree dieback (chronic eucalypt decline) on koalas are exacerbated by the clearance of much of the original tree cover and the lack of regeneration of food and habitat trees (Pahl et al. 1990). NSW Koala Management Plan 2008

**9. Failure to address Koala and Forestry Regulation.**

Koalas and forestry regulation

Existing measures to protect koala habitat and populations under the current coastal Forestry Operations Agreements (IFOAs) (applying to state forests) and the Private Native Forestry (PNF) Code are inconsistent, impractical to apply and enforce, and of questionable benefit (e.g. EPA 2014). New approaches are needed to regulate forestry activities alongside koala conservation. The koala is an iconic species and an example of a threatened species that,



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*due to its habitat preferences and its widespread but patchy occurrence, is unlikely to be greatly advantaged by surrogate approaches. While floodplains and coastal plains, largely held within private tenure, have historically supported the best koala populations (e.g. Lunney et al. 2009a), coastal and foothill forests, both private and public, also support significant koala habitats and populations (e.g. Lunney et al. 2009b, Biolink 2013, OEH 2013, Scotts 2013). As ongoing threats such as disease, road strike, habitat loss and fragmentation, and dogs continue to affect koala populations within human-dominated coastal areas, hinterland forest populations may assume greater overall conservation significance placing a correspondingly greater emphasis on regulation of forest logging. Koalas are negatively affected by logging regimes that simplify forest stand structure (Smith 2004) and the loss of preferred food and shelter trees (DECC 2008) – particularly the larger tree size classes generally targeted for removal (Smith 2004, Biolink 2013). Cumulative impacts over time are apparent with significantly lower size classes of preferred food tree species leading to lower koala carrying capacity (e.g. Biolink 2013). The current revision of forestry regulation procedures on public forest lands (the IFOA remake) and private forest lands (PNF) is an opportunity to enhance koala conservation within NSW's forests. OEH.*

**10. NORTH EAST FOREST ALLIANCE**

**EPA PROVE LOGGING BAD FOR KOALAS  
MEDIA RELEASE 14/9/2016**

*Outcomes of a recent study by the Environmental Protection Authority prove that Koalas have a significant preference for larger trees and more mature forest, with Koala populations found to be collapsing in recently logged areas.*

*"The Government now has the evidence that logging is bad for Koalas and needs to take immediate action to identify and protect the remaining Koala colonies that are in public forests threatened by logging. Every day that the Forestry Corporation is allowed to go on logging Koala's preferred feed trees brings them closer to extinction. It has to stop now. We call on Premier Mike Baird to urgently intervene to save NSW's Koalas," said NEFA spokesperson Dailan Pugh.*

*The EPA assessed Koala populations in four north coast State Forests, finding that higher Koala activity is positively correlated with greater abundance and diversity of local koala feed trees, trees and forest structure of a more mature size class, and areas of least disturbance." They found that where there had been limited recent logging in Royal Camp and Carwong State Forests there was high Koala occupancy and that these are source areas where Koala numbers are increasing. They found that heavy logging and burning of what should have been high quality Koala habitat in Clouds Creek and Maria River State*





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*Forests has resulted in low Koala occupancy and that Koala numbers appear to be declining.*

*NEFA had to intervene to stop the Forestry Corporation illegally logging Koala High Use Areas in Royal Camp State Forest (south-west of Casino) in 2012, and again in 2013 when they tried to resume logging"*

*It became evident that we had come across an exceptionally important area for Koalas, but were too late to stop half of it being logged. We proposed to the then Environment Minister, Rob Stokes, that Royal Camp and Carwong State Forests be permanently protected from logging as a National Park.*

*The EPA considered that Carwong had the highest Koala occupancy of any assessed area because it had escaped both wildfire and logging for 20 years.*

*Conversely Clouds Creek State Forest (south of Grafton, west of Coffs Harbour) should have had the highest quality habitat, but was found to have the lowest Koala occupancy. The EPA attributed this to the high degree of disturbance by logging and fire. They considered it was now likely to be sink habitat where Koalas would continue to decline.*

*This is yet more evidence that logging is bad for Koalas because it targets the larger trees they need to maintain healthy populations, and that their populations are collapsing in our public forests under the intensified logging now being practiced.*

*The Minister for the Environment, Mark Speakman, has sat on his hands and done nothing for too long while the Forestry Corporation continue to rampage through Koala habitat.*

*The Government can no longer claim ignorance. Premier Mike Baird must intervene to save NSW's Koalas.*

*A good start would be removing Royal Camp and Carwong from the logging schedules and making them into a national park"Mr. Pugh said.*

**11. Failure to audit impact and effectiveness of Councils' Koala Management Plans and SEPP 44**

*The lateness of many Councils submitting Koala Plans of Management has no doubt inhibited the protection of the koalas.*

*It is of some concern that Port Macquarie Hastings Council has no Koala Management plan and that this omission was not noted in the Review.*

**12.** This submission notes that the recommendations made do not reflect the recommendations or undertakings made by NSW government in the NSW Koala Management Plan 2008, nor does the review investigate whether any of the objectives or recommendations made by the Plan have been



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acted upon. Similarly, the review ignores the undertakings made by NSW under the National Conservation & Management Strategy 2009-2014 and the accompanying Implementation Reports. The sheer volume of recommendations coming out of these plans, strategies and reports is conflicting, confusing and contribute to the conclusion that there is no genuine political will to ensure the survival of the koala in NSW.

### CONCLUSION

**This submission concludes that the Committee in undertaking a review, with the following aims, has completely failed to address these issues.**

#### *1. Aims and role of the committee*

The Chair of the committee (Professor Mary O’Kane AC, NSW Chief Scientist & Engineer) has been asked to establish a committee to undertake a review into the decline of koala populations in key areas of NSW. Following completion of the review, the Chair will provide the Minister for the Environment a report that:

- . sets out a framework for a whole of government approach to addressing pressures
- . includes core learnings from other programs
- . analyses successes/failures
- . assesses policy options trialed to date
- . considers key koala management policy settings
- . identifies knowledge gaps
- . recommends possible approaches to address the decline in koala numbers. It is expected that the report will provide the Minister sufficient evidence from which a koala strategy for NSW can be prepared.

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The Chief Scientist's review and recommendations fail to include or address: - loss of habitat with minimal focus on habitat protection which is the primary issue; failure of NSW legislation to protect koalas; extent of failure; whether SEPP 44 has been effective; whether Council Plans of Management have been effective; whether undertakings made by NSW in the National Koala Conservation and Management Strategy 2009-2014 have been carried out; whether undertakings and recommendations from NSW Koala Strategy 2008 have been carried out; the effectiveness of Council management plans; Recommendations fail to take into account National Koala Conservation Strategy 2009-2014 Work Plan 2010 - undertakings by NSW; actions listed under the existing Priorities Action Statement which is included in a Saving our Species conservation project adopted by the Chief Executive of the Office of Environment on 25 July 2014.

In summary, the review is an unacceptable document based on flawed and biased inputs with zero recognition of expert scientists, NGOs and community organisations with impeccable information on koalas.

In short, the review is a disgrace and will achieve no outcome in terms of ensuring the survival of koalas in NSW other than ongoing extinctions. A national and a state tragedy.

Australians for Animals Inc. would also add that the so called information sessions arranged by OEHL with EPA and Forestry personnel present were completely useless.

*Sue Arnold*

Sue Arnold  
Co-ordinator

3 March, 2017.