

Our Ref: 5453/4
Contact: Barry Arthur (02) 4868-0852



Friday, 3 March 2017

Koala Strategy Submissions
PO Box A290
Sydney South NSW 1232

Dear Sir / Madam

Re: Wingecarribee Shire Council's submission on the proposed NSW Koala Strategy

Council believes that NSW has come to a very important point in attempting to save the estimated 36,000 koalas left in NSW, and welcomes the opportunity to make a submission on the proposed whole-of-government Strategy.

In terms of koala protection, Council sees itself as a relatively new, but important player, with the NSW Office of Environment & Heritage recently estimating the koala population in the Southern Highlands at over 3,000 individuals. This official estimate confirms that our Shire is home to the largest koala population in southern NSW, and represents an estimated 10% of the total number of koalas left in the wild in NSW.

Having established the Southern Highlands Koala Conservation Project just three years ago (with no previous official estimates of our koala numbers), the knowledge that our Shire supports such a significant population has generated tremendous excitement within our community.

Adding to this excitement, is an awareness that due to a range of factors (including currently relatively little development pressure, a supportive community and large areas of protected native vegetation) the Southern Highlands is uniquely positioned to play a significant role in initiatives that help stabilise and increase koala numbers in NSW.

A brief background to our submission

Wingecarribee Shire, also known as the Southern Highlands, is a 2,700 km² peri-urban local government area located south-west of the greater Sydney region. The Shire is widely considered to be a biodiversity hotspot, with a unique climate and landscape supporting over 472 species of native fauna (56 of which are endangered) and over 2057 species of native flora (128 of which are endangered). Approximately 60 per cent of the Shire supports remnant bushland, a significant portion of which is protected in water catchments. Nine endangered ecological communities occur within in the Shire, mostly in small fragmented patches across cleared parts of the landscape.

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Working with you

Council anticipates significant land-use pressure and development within the Shire over the coming years, although our unique geography and location 90km from Sydney and 20km from the coast has so far largely protected us from much of development pressure experienced in other Local Government Areas.

Council is very keen to ensure that the proposed NSW Koala Strategy gives our Shire the tools and direction required to help safeguard our koalas into the future.

The Southern Highlands Koala Conservation Project

Council became more aware of the presence of its koala population following a major bush fire that burnt over 15,000 hectares of bushland in the north of the Shire in October 2013. Within days of the fire, Council began receiving reports of koalas appearing in backyards and being hit on the Hume Highway. These reports surprised many local residents, including long-serving Council staff, who were unaware of the presence of koalas locally.

Recognising there was very limited available information about the Shire's koala population, Council approached the NSW Office of Environment & Heritage's (OEH) Threatened Species team seeking expert advice on how Council might help manage its koalas. It soon became clear that not only was the Southern Highlands home to a significant koala population, but this population had also been largely overlooked in terms of research and conservation efforts.

In mid-2014 the Southern Highlands Koala Conservation Project (SHKCP) was established with the overarching goal of achieving a healthy, connected, breeding population of koalas in the Southern Highlands in 100 years time.

Managed jointly by Council and OEH, the SHKCP project team have been working towards achieving a number of key outcomes including;

- a map of key koala habitat and corridors,
- an accurate assessment of koala population size and health,
- a list of threats, including particular hazards such as road fatality black spots and potential ameliorative measures,
- a list of local feed tree species, including those suitable for planting in rehabilitation projects,
- a community that is engaged in koala conservation and corridor planning and
- a plan of management for koalas in the Southern Highlands.

In working towards these outcomes, the project team has secured support worth in excess of \$300,000, with individual private donations totalling over \$35,000. This support has enabled the team to undertake a significant amount of work towards achieving the key project outcomes, including a GPS-tracking program monitoring the daily movements of 20 koalas over a six month period.

Recent research outcomes include:

- an official estimated population of over 3,000 koalas across the shire, and
- tree preference data supporting the inclusion of six additional species from the Southern Highlands into the proposed expanded SEPP-44 tree list

It is also important to note, through the SHKCP project, the establishment of strong partnerships with key stakeholders including the University of Sydney, the Foundation for National Parks & Wildlife, and Conservation Volunteers Australia. Significant work has also been put into community education and support, with the project team organising the production of a short film on the project (see www.wsc.nsw.gov.au/koalas), well-attended community information nights and film screenings, and keeping people informed through social media (eg. www.facebook.com/SouthernHighlandsKoalas).

Response to Chief Scientist's recommendations

Recommendation 1: That Government adopt a whole-of-government koala strategy for NSW with the objective of stabilising and then starting to increase koala numbers.

Council believes that we have reached a critical juncture in trying to save koalas in NSW. With a state-wide population estimated at just 36,000 individuals (down from the estimated millions prior to European settlement), it is not unfair to suggest that this strategy may well represent the final attempt at saving this iconic species in NSW. Fundamental to the success of the strategy will be a genuine commitment from the State Government along with the establishment of measurable goals, objectives and accountability.

Council also believes that it is critically important that the strategy provides an effective framework for collaboration and communication between agencies and organisations. The agencies and organisations that Council considers particularly important in this whole-of-government strategy include:

- Office of Environment & Heritage (including regional offices, Saving Our Species program, NPWS, Environment Trust)
- Department of Planning & Environment
- Local Councils with known koala populations
- Roads & Maritime Services
- Aboriginal Land Councils
- National Parks & Wildlife Service
- WaterNSW
- Crown Lands
- Local Land Services
- Department of Primary Industries
- Environmental Defenders Office (EDO)
- Wildlife care organisations (WIRES, Wildlife Rescue South Coast, etc)
- Universities focussed on koala research (especially genetics research)
- National Parks Association
- Volunteer organisations (eg: Conservation Volunteers Australia, Landcare ,etc)

Ultimately, the success of the strategy will depend on how well these organisations can communicate and work together towards the common goal of securing the State's koala population.

Recommendation 2: That Government initiate a program to improve data on the number, location and occurrence of NSW koalas, including trends over time, taking advantage of new sensor and communication technologies and data analytics within 12 months of receipt of this report.

Council agrees that we need to make significant improvements with regards to data capture and analysis. It is imperative that any strategy to stabilise and increase koala numbers must also be able to determine trends, particularly whether a particular koala population is increasing or decreasing. To do this effectively, we need to immediately establish accurate

baseline population data across all regions, followed-up by a scientifically robust monitoring program that can be implemented efficiently and effectively at regular intervals across the State.

We understand there are a diversity of views as to the most appropriate methodologies and techniques for identifying and monitoring koala populations over time, and we recognise that this may be a challenge to resolve. We also understand that the methodology used to determine koala numbers needs to be rigorous, yet flexible enough to respond to a wide range of landscape types and scales.

In attempting to resolve this challenge, Council would like to propose that the spotlight survey method implemented recently in the Southern Highlands to derive the recent estimate on our koala population be considered for implementation across the State.

This method was preferred over scat surveys and acoustic monitoring, because by surveying actual koalas in a known area we can determine;

- actual population densities in various vegetation types
- an estimate of the total population, and
- monitor population (as well as area of occupation) trends over time

Indeed, scat surveys and acoustic monitoring are quite limited in what they can tell us about koala populations, and typically only provide us with data on areas of known occupancy and vague indications of population trends.

Careful consideration also needs to be made of the cost implications of the various survey techniques and methodologies. Labour intensive survey techniques are likely to be cost prohibitive for many Councils – a major consideration when funding constraints in the Local Government sector are particularly tight.

Council also believes the spotlighting methodology is well suited to community participation/ citizen science initiatives. This data can then be used alongside follow-up monitoring efforts to inform whether a particular koala population is increasing or decreasing.

Consideration should also be given to the use of koala detection dogs. Not only are the dogs significantly more efficient and effective in detecting scats over a large area, but are also able to retrieve genetic profiles of individual koalas from their scats. This new technique could eliminate some of the need to capture koalas from the wild.

Recommendation 3: That Government publish a statewide predictive koala habitat map within three years of receipt of this report, with immediate priority given to improving coverage of the north coast.

Council supports in principle the development of a statewide predictive koala habitat map. However, Council believes it is very important that the relationship between the statewide map and the finer-scale mapping incorporated into local Comprehensive Koala Plans of Management (CKPoMs) is clarified.

For example, Wingecarribee Shire has recently invested \$250,000 into the development of a new, native vegetation map based on fine-scale modelling. Developed over the past 18 months by the OEH Science Unit and due for release in the next few weeks, this new product will be the most accurate native vegetation map of its kind in the State. The map will more accurately identify endangered ecological communities and also assist in the development of Council's new *Green Web* project. In addition to identifying koala habitat and wildlife corridors, *Green Web* will create a map of high environmental value lands across the Shire, and map priority investment areas for biodiversity conservation, including private lands.

Council's investment in both the fine-scale native vegetation modelling project and *Green Web* is considerable, and we are very keen to ensure that any predictive statewide koala habitat map will incorporate the significant work already undertaken by both OEH and Council in our Shire.

Recommendation 4: That Government improve outcomes for koalas through changes to the planning system.

Council supports this recommendation. As outlined in our submission regarding proposed amendments to SEPP-44 (for more detail see [Appendix 1](#)), we recognise that there are a number of deficiencies in the current legislation that consultants find relatively simple to circumvent, thereby making SEPP-44 ineffective in many instances.

As discussed above in our response to Recommendation 3, Council believes it is imperative that the mapping of koala habitat in a planning context is consistent with the mapping of koala habitat as developed in a CKPoM, and needs to be consistently applied.

In addition, Council is generally supportive of the proposed amendments to SEPP-44, particularly amending the definitions of core koala habitat and potential koala habitat with definitions that identify the characteristics of plant communities which make up koala habitat. We also strongly support the expansion of the list of tree species from 10 to 65 species and support the simplification of the development assessment process, as long as the process can be consistently applied across the state.

Recommendation 5: That Government improve outcomes for koalas through the Biodiversity Conservation Bill and associated Regulations.

Council recognises the associated regulations of the Biodiversity Conservation Act are yet to be placed on exhibition. This leaves large gaps in the legislative framework which are unknown and Council is therefore unable to fully evaluate the true impact of the legislation. Currently, this Shire supports important koala corridors which are categorised in the Native Vegetation Regulatory Map as "Excluded" zones, and regulated by the proposed SEPP. It is absolutely critical to understand what the SEPP and DCP will bring, before Council can comprehend the reform's impact in this Shire.

Recommendation 6: That Government investigate models for guiding and incentivising collaborative best practice for development and ongoing land use occurring in areas of known koala populations across tenures, industries and land users.

Council supports encouraging development that incorporates koala-friendly design and construction, however we believe it is important that baseline standards are incorporated into the model. Incorporating baseline standards provides scope to enforce compliance on development, and may also assist in countering potential negative perceptions the community may have about the Government's overall commitment towards koala protection.

Recommendation 7: That Government agencies identify priority areas of land across tenures to target for koala conservation management and threat mitigation.

In identifying areas to target for koala conservation management and threat mitigation, Council supports the recommendation that priority areas need to be identified, however we strongly believe that this needs to be undertaken in both the north and the south of the state.

Specifically, we believe that the Southern Highlands must be identified as a priority area for the following reasons:

- Largest koala population in southern NSW (over 3,000 individuals)
- Home to approximately 10% of the total koala population of NSW
- Importance of this population in terms of genetic diversity
- Significant recent investment
 - \$250,000 investment by Council towards fine-scale vegetation mapping
 - \$300,000 investment (estimated) towards 450 spotlight surveys
 - GPS tracking project (20 individuals tracked over 6 months)
- Significant issues relating to disease and road strikes
- Excellent relationship between project partners: OEH, Council, University of Sydney, Conservation Volunteers Australia.
- Research links: University of Sydney - Koala Health Hub
- Strong community support (\$35K in private donations towards project)

Recommendation 8: That Government, through the Office of Environment and Heritage, convene two symposia within 12 months of receiving this report: one for scientists active in koala research and land managers to develop a koala research plan; and one focussed on koala rehabilitation to identify actions to optimise the delivery of and support for the network of koala rehabilitation groups and carers.

Council is very keen to support this initiative, particularly if the symposia are held at regular intervals, thereby enabling attendees to discuss the latest research and developments in regards to koala conservation. We would also like to draw attention to the existence of other conferences, which appear to cover similar topics; namely the National Koala Conference

(hosted by the Koala Hospital in Port Macquarie) and the National Koala Health Hub Conference (hosted by the University of Sydney). We would suggest looking into the possibility of consolidating these existing conferences into the two symposia outlined above. Doing this would avoid the potential of having four separate conferences in the space of a year, and thereby increase the potential for constructive and effective discussions.

Recommendation 9: That Government establish the Australian Museum as a preferred repository for koala genetic samples in NSW, and all data and metadata associated with these samples should be deposited into the SEED Environmental Data Portal (extended if necessary to include flora and fauna).

Council supports consolidating koala genetic samples with the Australian Museum. We further support making the associated data available through the publically accessible SEED website as it encourages transparency, collaboration and innovation.

Recommendations 10 & 11:

- **That Government facilitate the exchange of information among land managers, local government, the research community and the broader community.**
- **That Government draws on knowledge and shares information with local community members through a program that supports localised engagement between liaison people and residents and industry.**

Council fully supports a transparent exchange of information and ideas. We also support the establishment of a program to support local engagement, and believe local government will be critical in developing and delivering this program. Local Councils have a unique ability to connect with local communities, and are on the frontline when it comes to applying policy at a local level. Recognising this, it is imperative that the State adequately support local councils, and help build capacity at a local level.

Yours sincerely,



Barry Arthur
Manager – Environment and Sustainability

APPENDIX 1

Wingecarribee Shire Council – general issues and concerns with proposed amendments to State Environmental Planning Policy No 44 – Koala Habitat Protection

1) Amended definitions of koala habitat and an updated list of tree species.

- a) Council supports the replacement of the definitions of core koala habitat and potential koala habitat with definitions that identify the characteristics of plant communities which make up koala habitat, supported by an updated list of tree species. Council supports this move towards a habitat-based framework for protecting koalas, rather than a tree-focused framework, as it recognises that koalas are responsive to changes at a landscape scale, and protecting a very limited range of tree species is not the best approach. It also recognises that much remains to be learnt about how koalas utilise different landscapes and the vegetation within it.
- b) Council supports the draft updated list of tree species as it appears to reflect current scientific knowledge. In particular the increase from 10 to 65 trees illustrates that koalas utilise far more tree species than previously thought, and aligns with moves towards protecting koala habitat as a whole, not just trees. Council also supports the inclusion of the six tree species identified in the past 12 months as part of the SHKCP as important habitat for koalas in the Southern Highlands, namely *Eucalyptus cypellocarpa*, *E. globoidea*, *E. quadrangulata*, *E. mannifera*, *E. sieberi*, *E. oblonga* (Cullen 2016).
- c) Council believes that we can no longer afford to wait another 10 to 20 years before incorporating new scientific knowledge that might be critical to saving this species. To attempt to resolve this issue, Council suggests that the framework surrounding the SEPP should incorporate a process of 'nomination and review' (or equivalent) of new tree species, which if managed effectively would enable the list of tree species and definitions of koala habitat to be reviewed on a regular basis and amended as new scientific knowledge emerges.
- d) Council recognises there are a diversity of views as to the most appropriate methodologies and techniques for determining koala habitat, and understands that this will be quite a challenge to resolve. In attempting to resolve this issue, Council believes that the methodologies and techniques used to determine koala habitat need to be rigorous, yet flexible enough to respond to a wide range of landscape types and the different levels of resourcing available in each region.

For example, in the Southern Highlands, the project team has chosen to use the spotlighting survey method in areas of known koala habitat. This method was preferred over scat surveys and acoustic monitoring, because by surveying actual koalas in a known area we can determine:

- i. actual population densities in various vegetation types
- ii. an estimate of the total population, and
- iii. monitor population (as well as area of occupation) trends over time

Indeed, scat surveys and acoustic monitoring are quite limited in what they can tell us about koala populations, and typically only provide us with data on areas of known occupancy and vague indications of population trends.

Careful consideration also needs to be made of the cost implications of the various survey techniques and methodologies. Labour intensive survey techniques are likely to be cost prohibitive for many Councils – a major consideration when funding constraints in the Local Government sector are particularly tight.

Council also believes the spotlighting methodology is well suited to community participation/ citizen science initiatives. This data can then be used alongside follow-up monitoring efforts to inform whether a particular koala population is increasing or decreasing.

Consideration should also be given to the use of koala detection dogs. Not only are the dogs significantly more efficient and effective in detecting scats over a large area, but new analysis techniques allow the retrieval genetic profiles of individual koalas from their scats. This new technique could eliminate some of the need to capture koalas from the wild.

2) Simplification of the development assessment process.

- a) Council supports the standardisation and streamlining of the development assessment process as it relates to koala habitat, and is keen to ensure a consistent assessment process is applied across the State. Currently, there appears to be very little confidence that the framework as it now operates adequately protects the State's koala populations, and therefore we welcome moves to change this.
- b) In regards to determining koala presence at a particular site, Council supports a process that determines presence based on a range of factors including the presence of scats, scratchings, historical records and actual physical sightings. In particular, Council believes that historical records *must* contribute to an assessment of koala presence, regardless of the age of the record, and should become a trigger for more site-specific surveys to determine presence or absence.

Council is also keen to ensure that site-specific development assessments that determine presence or absence on one particular day do not automatically override the mapping of koala habitat. This 'snapshot' approach is simply not adequate in determining what could very well be critical koala habitat.

- c) Council also believes that buffer zones *around* identified koala habitat are an important consideration and must be incorporated into an assessment of koala habitat. Buffer zones are a widely accepted environmental technique to mitigate the impact of development and adjoining land use on important environmental values, in

this case, koala habitat, and must be considered in the development assessment process.

3) Updated guidelines to support the preparation of a Comprehensive Koala Plan of Management (CKPoM) and instruct development assessment.

- a) Council supports the establishment of clear guidelines outlining the steps required to prepare a CKPoM. Furthermore, Council has been impressed by the draft CKPoM developed by Campbelltown City Council, and thinks it should be examined closely by policy makers to identify components that could be applied consistently across the state.
- b) Council seeks further clarification on whether the Department will continue to *'recommend'* or *'require'* Councils to develop Comprehensive Koala Plans of Management. Currently, Council is working towards developing a CKPoM, however unless a Council is actually *required* to develop a CKPoM, there is likely to be a degree of resistance within some parts of Council and the community to actually developing one.

4) Update and transfer the plan making requirements to the Local Planning Directions.

- a) Council supports the transfer of the strategic planning components in the SEPP, including requirements for the zoning of land in relation to the protection of koala habitat, to the Local Planning Directions. Although Councils need to address 'relevant' SEPPs, by including the Koala provisions into the "s 117 Directions", Council is obliged to specifically consider and address those provisions, under Section 117(2) of the Environmental Planning and Assessment Act 1979, when preparing an LEP or a Planning Proposal to amend an LEP.