

## **INQUIRY INTO KOALA POPULATIONS AND HABITAT IN NEW SOUTH WALES**

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**Macarthur Branch**  
PO Box 792  
Campbelltown NSW 2560  
macarthur@npansw.org.au

## SUBMISSION TO INQUIRY INTO KOALA POPULATIONS AND HABITAT IN NSW

### Introduction

NPA Macarthur welcomes this Inquiry into the state of koalas in NSW. This comes at a time of critical importance for our natural environment generally, and especially the iconic koala.

Macarthur Branch has a long history of involvement with our local koala population and this submission is largely confined to those issues.

### Background

In 1986 a small colony of koalas was discovered at Wedderburn, south of Campbelltown. Koalas were known to have been plentiful in this area in the early 1900's, when they were shot for their pelts but there had been no official records of sightings since. Their rediscovery in 1986 was, at least for the author, akin to finding the Tasmanian tiger was not extinct. It was very exciting!

A problem arose soon after, however, when it was became known that the area where koalas were found had been approved for a rural residential sub-division. A long campaign ensued which ultimately, after a union Green Ban had been imposed, resulted in the developer going bankrupt and the land passing into public ownership, culminating in its incorporation into the Dharawal National Park in 2012.

We were very fortunate to have the involvement of the University of Western Sydney, via Assoc. Prof. Robert Close and his students, who began what became a 27 year longitudinal study of the local population. This, possibly unique, study details everything one would ever want to know about our local koalas from 1989 to 2016. It has culminated in the recently launched Campbelltown Koala Research and Database -  
([https://campbelltownkoalashome.files.wordpress.com/2019/04/campbelltown\\_koala\\_research\\_and\\_database-1st-april-2019-2.pdf](https://campbelltownkoalashome.files.wordpress.com/2019/04/campbelltown_koala_research_and_database-1st-april-2019-2.pdf)).

### Matters relating to aspects of the Inquiry Terms of Reference

#### ToR 1(a) - Status of populations, key threats, adequacy of protections

What we found in the years since 1986 was that koalas started appearing in places where they had not been seen in living memory. It is now known that there is a genetically distinct SW Sydney population that ranges from Liverpool in the north, to Appin in the south, to Sutherland in the east and to Mt Annan Botanic Garden, Camden in the west. The population, estimated at about 1,000, is healthy, with no clinical signs of Chlamydia, and expanding. This is unlike any other population in the state.

This situation is now seriously threatened, however, by the planned urban development of much of their existing and potential range, to accommodate the projected population growth of Greater Sydney.

Dr Close has this to say on p.30 of his report-

**5.1 Status of the population** *The koala population is currently in good shape. There is suitable habitat in the bushland strip that runs from Liverpool to Appin between the Georges River and the suburbs and Appin Road. This 'Strip' can support female home-ranges and dispersal of young animals. The females with established home-ranges are healthy, long-lived and produce a young almost every year. Animals that do not establish home-ranges in the 'Strip' disperse widely thus ensuring that koalas fill vacant home-ranges, in adjacent regions and maintain genetic diversity..... We estimate that the population lies between 300 and 1200 and we favour a middle value of 1000..... Estimations of population numbers, however, are not as important as distribution, because koalas can persist at levels of density so low that standard survey techniques may not detect them.*

([https://campbelltownkoalashome.files.wordpress.com/2019/04/campbelltown\\_koala\\_research\\_and\\_data-base-1st-april-2019-2.pdf](https://campbelltownkoalashome.files.wordpress.com/2019/04/campbelltown_koala_research_and_data-base-1st-april-2019-2.pdf))

To date, our koalas have been able to expand their range and numbers beyond their bushland core habitat along the upper Georges R., despite threats posed by their moving into urban areas. The greatest mortality factors have been cars and dogs, yet this has not prevented a continued koala population increase. There are many examples of our koalas happily co-existing with existing urban development, especially along the fringes of their core habitat, in the bushland strip that borders Campbelltown along its eastern side.

The work of Dr Close and his students included a weekly column in a local paper, where the regular new sightings were reported. Koala spotters were given naming rights for the new ones which were radio-collared and then tracked. This developed a strong community ownership of and pride in our local koalas. Unfortunately this has never been reflected in the actions of the local council who still have not even finalised a Koala Plan of Management, after 20 years of trying.

This valuing of the local koala population has also not been reflected in the actions of the State Government which, in its recent redevelopment of the Airds public housing estate, has allowed significant areas of koala habitat to be removed at the cost of one koala being killed and others having to be relocated by volunteers.

The government has also allowed the rezoning of large tracts of lands along the Appin Rd, south of Campbelltown, for residential development. This land is in a narrow band between the Georges and Nepean Rivers and is currently used by koalas to disperse westwards. Recent sightings of a koala at the Australian Botanic Garden, Mt Annan, indicate the known extent of this westerly dispersal trend. (How delightful would it be to have resident koalas at this site?)

Urban development, although regrettable for many reasons, should not be totally incompatible with habitat retention which would allow koalas and other wildlife to continue to disperse throughout the landscape. This capacity to disperse is key to the survival of our healthy koalas.

What we are seeing, however, is a development at Mt Gilead on the Appin Rd, for instance, which, instead of preserving existing mature trees and enhancing treed areas for wildlife corridors, will instead see these trees removed and the area blanketed in housing. Despite koala scats being found on the property under these trees, the area is not considered core koala habitat, so not deemed worthy of retention.

Immediately north and south of the property are vegetated areas in public ownership where koalas are found. However the government response re koala management in this whole area where development is proposed along Appin Rd, is simply to propose exclusion fencing on the eastern side of the road which

abuts the Georges R. bushland strip of core habitat. This is to prevent any westward movement of koalas, allowing a major upgrade of Appin Rd and also allowing urban developments on the western side to ignore the provision of wildlife corridors and so maximise the yield of housing lots.

This exclusion fencing will trap wildlife on the eastern side of Appin Rd in the event of fire and prevent koala dispersal which is key to maintaining genetic diversity in the population.

Urban development can be environment-sensitive. As we've seen for years in Campbelltown, koalas will utilise any vegetated creeklines, parklands, backyards or schoolyards. As long as there is food and shelter, our koalas have shown they can cope, even with dogs, lights, noise, roads and traffic.

What they can't cope with is fast traffic and therefore adequate underpasses or overpasses are needed on busy roads. These are a must for Appin Rd but to date have been considered impractical – take up too much land (overpasses), or topography not suitable (underpasses). The real reason, however, is most likely that they are the more expensive option and require land to be set aside for the corridor that they would be funnelling animals into, thus reducing housing block yield.

Along with plans for intensive urban development of the area comes the need for arterial roads. The Greater Macarthur 2040 Plan raises the spectre of the Georges River Parkway, a dotted line that has been on maps for over 40 years, pre-dating the known existence of koalas in the area. This north-south link road will cut a swathe through the core koala habitat strip east of Campbelltown. Unless the significance of the SW Sydney koala population is recognised, we fear this road will be built and their core habitat decimated.

For many years, the northern beaches koala colony, centred on Avalon, was known as Sydney's local colony still surviving in the wild amidst urban areas. Sadly, by 1990 it had all but died out due to habitat destruction and dog attacks.

In contrast, the SW Sydney colony is a marvel, still allowing koalas to be seen in the wild on the edge of Australia's major capital city. However this obvious tourism potential is one that has never been acknowledged or tapped, especially by the local council. It is the only known healthy and expanding population in the state. This status should be able to be maintained indefinitely with careful planning. The lack of that planning to date has to be the greatest threat to their survival.

#### ToR (c) – the effectiveness of existing policies in protecting koala habitat and responding to key threats

It is the ineffectiveness of existing policies that has led us to the situation we are in re koalas in all other parts of the state.

It's not as if these issues re koala decline were unknown. Way back in 1988 a Koala Summit – Managing Koalas in NSW was held in Sydney. NPA Macarthur participated in this Summit, submitting a paper on the newly-discovered Wedderburn colony which was then under threat from proposed development.

Loss of habitat was identified as the key threat to koalas throughout NSW and there was a sense of urgency from participants all over the state that something needed to be done in a hurry to halt this process. A plea was made in the concluding comments of the Summit's report, for "the necessary research, planning and management to ensure a long-term future for wild koalas."

We would argue that, regarding the SW Sydney koalas, the research has been done but the planning and management for this area has not followed.

Clearly, any policies that have been put in place, such as SEPP 44 in particular, have not worked, and so the overall situation for koalas has gradually worsened over time.

One key factor that has led to the parlous situation for koalas and the natural environment in general, is the notion of offsets. This has become an escape provision for developers that unfortunately is being used constantly to facilitate development in the Sydney Basin. Rather than being seen as the last resort according to the accepted harm minimisation hierarchy of avoid, mitigate, offset, offsetting is invariably used as the first recourse, even when threatened flora and fauna species, and endangered and critically endangered vegetation communities are concerned.

As this applies to koalas, the ludicrous situation exists whereby koala credits for offsetting can be generated anywhere in NSW. So destruction of identified koala habitat in SW Sydney can be offset by protection of koala habitat in the Pilliga Scrub, for instance. This would make no sense, as the SW Sydney koalas are not genetically the same as those in other areas of the state which also do not have the same Chlamydia-free status. Merely protecting habitat elsewhere, will not help our local koalas.

Offsetting is supposed, in theory, to involve like for like but in the Sydney area it is becoming increasingly difficult to find like areas to offset the rampant clearing of native vegetation that is occurring. For this reason, the system has also allowed existing reserves to be used as offsets, which is quite against the original spirit of offsetting which was supposed to result in additionality.

The reality is that, offsetting, even if practised as originally intended, results in a net loss overall, as something significant is being lost in the first place. A different term should be applied to this practice; a term that does not imply that satisfactory compensation for habitat destruction is happening or even possible.

ToR (d) – identification of key areas of koala habitat on private and public land that should be protected ..... and the likely impacts of climate change on koalas and koala distribution

NPA Macarthur has a long-standing proposal for reservation of public lands along the western bushland strip edging the Upper Georges R. The original proposal (1988) was for a Macarthur SRA but has since been upgraded to a reserve proposal to be called the Upper Georges River NP. (see map p.6) This national park was promised by the state Labor Party prior to the election earlier this year. The Government promised a smaller “reserve” (status not clarified) in the Appin area.

A complementary proposal has been put forward by the Georges River Koala Network for a Two Rivers Frontier Koala NP encompassing the Gilead development site, which would provide the necessary corridor link between the Georges and Nepean Rivers. (see map p.7)

Climate change impacts on koalas are also discussed on p.32 of Dr. Close’s report:

**5.3.3 Fire:** *Fire is an ever present threat and one that will worsen with global warming. Those females that have home-ranges that include rocky caves where they can shelter from the heat and flames (Close et al 2017) are more likely to survive. The Georges River and O’Hares Creek gorges provide that kind of shelter. A second safeguard is for the koalas to have a wide distribution thus ensuring that there will always be some koalas that will escape a given threat.*

**5.3.4 Global warming:** *The effects of global warming are likely to be serious. Higher temperatures might decrease rainfall, increase evaporation and lower water tables. These factors could lower the water content of the dietary leaves and cause the death or decline of the principal dietary species, E. punctata, and diminish their nutrient levels or raise their toxin levels. Fungal infections of the eucalypts such as Myrtle disease could also become more problematic. However, koalas have survived millions of years of climate change; so the wider the distribution that koalas can survive in today, the more likely that there will be some places that will survive climate changes in the future.*

These comments acknowledge the importance of wide distribution which can only be achieved by allowing animals to disperse across the landscape.

ToR (e) the environmental, social and economic impacts of establishing new protected areas to conserve koala habitat, including national parks

Re our reserve proposal -

1. core koala habitat would be preserved
2. active management as a national park would prevent the steady degradation of these lands that occurs through lack of sympathetic, co-ordinated management, such as a currently proposed council cycleway
3. infrastructure inroads such as the Georges R. Parkway would be prevented.
- *For every 25 ha of bushland that is removed or damaged, a female koala will lose its livelihood. The proposed Georges River Parkway would eliminate many home ranges. (Close R. ibid, p.32 )*
4. protecting koala habitat also protects habitat for all other wildlife in the area and maintains overall biodiversity

Positive social impacts would be felt by both the local residents and visitors, as lands which are at present largely unmanaged would undergo active management which would allow safe access to bushland and to more beauty spots along the upper Georges River.

The tourism potential and the consequent economic benefits of a national park where koalas are likely to be seen in the wild must be huge. To have such an area close to a capital city would greatly heighten that potential. The reservation of lands proposed for the Upper Georges R. NP would not involve a purchase cost as they are all either State or Commonwealth owned.

## **Conclusion**

There is no doubt that the plight of koalas in NSW is dire. That we have a colony in SW Sydney that appears to be going against that trend is something to be marvelled at. This happy situation, however, is also under dire threat from pressures of development, especially unsympathetic development.

It's not rocket science! We can develop in a way that seeks to maintain our amazing natural environment, where icons such as koalas can co-exist with people. Adequate reserved and managed areas of core habitat plus good wildlife corridors (including safe underpasses/overpasses across busy roads) across the landscape can ensure our incredibly resilient local koala population survive and continue to grow and expand their range.

Sydney is wonderfully endowed with large tracts of natural bushland all around it - national parks, water catchment areas and Holsworthy military range. These should not be seen as all that is needed to preserve our wildlife, especially koalas. The concentration of our koalas along the strip bordering the western side of the Georges R. is due to their preference for the food trees that grow on the fertile soils there, rather than those of the sandstone vegetation of areas to the east and south.

It is clear that the SW Sydney koala population has not been highly valued by sections of Government. Their current unique healthy status – ie. not displaying any clinical signs of Chlamydia – is probably due to their capacity thus far to disperse and avoid the stress that confinement to a limited range can produce. On a scientific level, at least, this should be highly valued.



Only a change in government policy which reflects the view that development should not proceed at the expense of our natural environment will lead to measures that really do ensure the survival of SW Sydney's koalas.

We fervently hope that the findings of this important Inquiry will help to generate a change in that policy – before it's too late.

Julie Sheppard

for NPA Macarthur Branch

2.8.19

## References

All documents referred to in this submission and many more can be found on the Campbelltown Koala Research and Database -

[https://campbelltownkoalashome.files.wordpress.com/2019/04/campbelltown\\_koala\\_research\\_and\\_database-1st-april-2019-2.pdf](https://campbelltownkoalashome.files.wordpress.com/2019/04/campbelltown_koala_research_and_database-1st-april-2019-2.pdf)



