



8 October 2020

Attention:

Department of Planning, Industry and Environment, Green and Resilient Places Division,
Locked Bag 5022, Parramatta NSW 2124

via NSW Planning Portal

To whom it may concern,
Dear Sir/Madam,

Please find attached a submission from Cumberland Bird Observers Club Inc, with comments on some proposals concerning koala conservation under the CPCP, mostly as detailed in the publication:

***Draft Cumberland Plain Conservation Plan (CPCP) Sub-plan B: Koalas -
New South Wales DPIE, August 2020***

Dear Sir/Madam,

Re: Proposals for conserving the Southern Sydney Koala population under the Cumberland Plain Conservation Plan (CPCP) - Sub-plan B

Cumberland Bird Observers Club Inc (CBOC) is a community bird interest club based in The Hills district of Sydney, with an interest in the conservation of birds and other wildlife locally and wider afield. We welcome the opportunity to comment on proposals for conserving an important population of koalas in southern Sydney.

Background

The Campbelltown koala population is one of the few remaining populations of the species in the Sydney region. It is (unlike many populations in NSW) considered to be healthy, uniquely Chlamydia free, and expanding. The devastating 2019/20 bushfires in much of eastern NSW fortunately did not affect the Campbelltown koalas, and heavy losses elsewhere in the State have increased the comparative importance of this population.

CBOC is aware that there has been growing community concern over several years about the future of these koalas, as dense urban development encroaches ever-closer to its core habitat. Biodiversity certification for the Greater Macarthur Growth Area is being sought by the Campbelltown City Council (for a proposed development at Mount Gilead in the north of this koala population's territory), and by the NSW Government for the remainder of the area through the CPCP.

Most new urban developments in natural koala habitat in Australia have caused severe declines in koala populations, in the face of rapid growth in infrastructure. Therefore we welcome the intention of the NSW Government to maintain the Campbelltown population for the long term under the CPCP (Sub-plan B), guided by recommendations from the NSW Chief Scientist. Comments on particular proposals and related matters are given below.

Area of interest

The geographic area of interest for this submission lies between the primary Upper Georges River koala corridor and the primary Nepean River koala corridor, from Appin in the south to about Rosemeadow (edge of Campbelltown) in the north. There are six more-or-less unbroken secondary corridors running generally east-west between the two river valleys. The Lend Lease residential development at Mount Gilead (Stages 1 and 2) unfortunately looks likely to occupy a large part of the area between Appin Road and the Nepean River corridor, SW of Noorumba Reserve. Probable consequences for koalas from these developments (if both are built) are discussed later.

Georges River Koala Reserve

A National Park has long been proposed by community groups, in the narrow strip of bush along the west bank of the upper Georges River north from about Appin. About half of the required land is already owned by NSW Government agencies (700 ha). Under the CPCP, the State Government proposes to act on the park plan (probably prompted by a widespread desire for effective action to stop the rapid decline of the koala in much of eastern Australia).

The koala reserve is proposed to be "delivered" in three stages: 700 ha in year 1; 430 ha by year 10; and 755 ha by year 20 (2040)! We wonder why establishment is predicted to be so slow. Stated reasons include land purchase, interim biodiversity stewardship arrangements, and planting of food trees in treeless areas (about 200 ha). Even so, the reserve/park should be able to be largely established after 10 years rather than 20.

Various Governments (which come and go) will need to ensure for up to 20 years that actions specified at the start of the project are followed through diligently. When finally established (1,885 ha), the reserve will be managed by NPWS. It will be long and narrow (about 425 m wide), just wide enough to provide a koala corridor and habitat space. Unfortunately, most of the western boundary will be formed by the increasingly busy Appin Road (a major hazard to koalas). This is discussed further below.

Secondary corridors - Georges River to Nepean River

The current six secondary koala corridors, running generally east to west from the proposed reserve to the Nepean, are crucial to the movement of koalas in this section of their range. From the northern to the southern, the corridors are designated A to F.

There is a problem in that the primary Nepean River corridor functionally ends (for koalas) adjacent to or in the Mount Gilead potential development site. A dead end here presents the risk of a population sink; but this risk **must be avoided** by (at very least) maintaining a functional corridor preferably 500 m wide through Mount Gilead to the Nepean. Basically this means that corridors A and B, or a derivative of them, would need to be maintained across the Mount Gilead land) if the Stage 2 development is allowed. This would also offer an easterly escape route from fires in the Nepean valley.

We trust that the Government will ensure that any development in the Mt Gilead property does include well-designed koala corridors of natural and planted vegetation through the property. However, in any case the proposed development appears likely to disturb koala movement patterns near the interface with suburbia.

It is very important to minimise the exposure of koalas to hazards and threats, and also to maximise the availability of koala habitat. Securing all, or at least some, of the east-west secondary corridors for koalas in perpetuity is probably vital for maintaining koala populations in that section of its range; the narrow reserve would probably depend on its connections to the Nepean corridor for its koala "supply" (assuming there is some movement and turnover of animals to/from the proposed reserve area). The importance of these secondary links is recognised by the Plan, with proposals to protect native vegetation within all the east-west koala movement corridors, by environmental zoning.

Whether this zoning would be adequate to maintain the corridors long-term is debatable. Also, It would be harmful for the tongues of land between corridors C to F to be targeted by developers (this is likely). It would make maintenance of the corridors more difficult and diminish their utility to koalas. We recommend that the Government should aim to purchase/acquire some of this "tongue" land for a permanent buffer to two or three of the corridors as a minimum, and along with the corridors themselves, add the land to the reserve (preferably), or at the least ensure environmental zoning of all these areas.

Hazards to koalas

The greatest "everyday" threat to the survival of koalas in this area, especially near busy roads like Appin Rd, is traffic. Appin Road forms the entire western boundary of the proposed reserve, with no safe koala crossing points at present. There are various suggestions for several underpasses or overpasses, with the former considered more likely to be used by koalas (but not necessarily guaranteed). Underpasses would have to "emerge" *inside* corridor fences on the W side of Appin Road; that is at least 2-3 underpasses are needed (one per retained and fenced secondary corridor).

Without safe crossing points, the protected areas probably cannot "work" optimally (if at all). Construction of a koala exclusion fence (that they cannot get over) along both sides of Appin Rd should keep most koalas and other animals off the road, but without safe crossing points it could severely curtail necessary movements from one major valley to the other.

Significant harm is caused to koalas on the ground by dogs. The victims are often animals walking through built-up areas where there are gaps in corridors with few or no trees. Again, koala fencing on boundaries of known corridors and preferably replanting of treeless areas within corridors should prevent most dog attacks. The CPCP proposes building these fences on the boundaries of the secondary corridors, which would be a considerable total length (not known).

Koala exclusion fencing and maintenance - amounts, costs

The cost per km of installation and ongoing maintenance and replacement of koala exclusion fencing is about \$400,000 (net present value) - a considerable amount. An estimate of length of required fencing in Plan documents is 120km, giving a rough cost of \$48 million! In the area discussed here, the total length of corridor boundaries and road to be fenced under the preferred scenario of retaining all east-west corridors (and assuming operable road underpasses) has not been estimated; but it would clearly be considerable. All such fences require regular patrols to check their condition and repair damage from fallen trees and branches etc. For access to most of the edges of fenced corridors, a 4-WD perimeter track needs to be maintained just outside most of the fence length.

Interaction of other wildlife species with fences and road underpasses

Underpasses for safe passage by koalas across/under Appin Rd should benefit a wide range of other mammals, notably wallabies, possums, wombats, maybe kangaroos, and (unfortunately) foxes and wild dogs; and some ground-dwelling birds and reptiles. Koala fencing designed to keep koalas within corridors could disadvantage some other mammals at times, although generally they should find food and other resources in the wider corridors.

Climate and bushfire threats, and preventive measures

Global warming is expected to lead to more erratic weather in the next few decades, including more frequent drought and extreme heatwaves. Heat stress can be fatal to koalas, and bushfires of great intensity (as in early 2020) could be more common.

The CPCP plans do not seem to contain any detailed proposed strategies to protect the koalas in South-west Sydney from catastrophic fire. These strategies will be a work in progress. We can envisage a broad need to keep understorey and ground fuels in koala habitat at fairly low amounts and low height (mostly by skilled and careful patch burning), to prevent tree crown scorch if wildfires do occur. Mixing newly planted areas in with natural forest would complicate this fire management - young plantings could not tolerate even "cooler" fires for several years. During extended heatwaves, it may be feasible to provide drinking water for koalas in "Blinky Drinkers" (already known to DPIE) or similar dispensers.

Summary of pro's and con's of reserve proposal

CBOC fully supports the planned reserve and action aimed at conserving a sizeable portion of the southern Sydney koala population. This population **must be maintained**. The protection of the Georges River corridor, including the creation of the Georges River Koala Reserve and the replanting of habitat, will provide crucial linkage for the koala population of Southern Sydney to the Southern Highlands.

Our main regrets with the present proposal are: (1) the proposed logical network of primary corridors linked to one another by secondary corridors may not work optimally due to increasing encroachment by dense urban developments. This will inevitably cause more disruption, with degradation of corridors, and increased hazards (traffic, dogs, noise, lights etc). Very proactive management and cultivating cooperation with neighbouring property owners would be essential.

(2) High degree of complexity and expense for management and materials (e.g. great length of koala fencing) needed to keep the koala population safe and functioning. More options in the Macarthur region

for a reserve, well buffered by bushland and without suburbia on its doorstep, possibly existed 10-15 years ago, but the urgency for protecting it was unfortunately not recognised then.

The effectiveness and robustness of the chosen site could probably be greatly improved by extending reserve status to the area between the two Rivers (Georges and Nepean), including the two primary corridors, (assuming these are well-defined), the six (or at least five) east-west secondary corridors themselves, and the areas between these corridors. How feasible this would be now is unknown; but if even part of it could be achieved soon, it would help.

Refusing the construction of the Mt Gilead stage 2 development (a dream) should (we understand) preserve koala movement corridors between the northern ends of the river corridors.

These various constraints and high expenses associated with the reserve site on the edge of an expanding city strongly suggest that the next one(s) should be located in a koala hot spot remote from urban areas. We need more than one or two of these koala reserves (or national parks). For example, an area or two within the proposed large Great Koala NP (North Coast) with viable and thriving koala populations, could be minimally managed and given basic visitor facilities. There should not be any significant danger from traffic or dogs, thus little need for expensive fences or underpasses.

If located in State Forest, land would not need to be bought. The main problem with this alternative approach is, as usual, opposition from timber interests and arguments over compensation for wood resources that become non-exploitable.

Sincerely,

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