# INQUIRY INTO KOALA POPULATIONS AND HABITAT IN NEW SOUTH WALES

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#### Submission to the Inquiry into koala populations and habitat in NSW

Dear Committee,

Please accept this submission from the Coffs Coast Branch of the NSW National Parks Association (CCNPA) to the Inquiry into Koala Populations and Habitats in NSW. We hope the Inquiry can help the NSW Government implement steps that will see koala declines reversed before it is too late.

The CCNPA believes it is important for the Committee to realise that the extinction of koalas in NSW is possible or even likely within the next 50 years if we do not urgently change course.

However, this doesn't have to be the inevitable fate for koalas; we know the problems and we know the solutions. The Government has the power to choose which future it wants for koalas and your Committee has an opportunity to influence the Government.

If we can implement these steps koalas stand a good chance of surviving in NSW. If we continue with business as usual, koalas will continue to die and to slide towards extinction. I urge you to secure the future of koalas by taking decisive action to protect habitat.

Members of the CCNPA have experienced the serious decline in koala numbers on the Mid North Coast over the last 30 years and participated in an almost continuous series of koala conservation campaigns over that time. Those members were instrumental with other local conservation groups and the NSW National Parks Association in initiating the koala habitat studies in 2012 on the Mid North Coast that led to the development of the proposal for the establishment of the Great Koala National Park.

The Great Koala National Park will help protect our national icon. If we can implement these steps koalas stand a good chance of surviving in NSW.

The Great Koala National Park will give our dwindling koala population the habitat they need to thrive again. By adding 175,000ha of state forests to existing protected areas to form a 315,000ha reserve in the Coffs Harbour hinterland. Currently most koalas in NSW live outside of protected areas. In fact, because our National Park network is biased towards higher, more infertile country, it doesn't capture well the habitat that koalas prefer – fertile, coastal forests that produce more nutritious leaves.

Analysis of OEH conducted research into where koalas are located (called 'koala hubs') has shown that the Great Koala National Park contains 44% of all hubs in state forests in NSW. We are confident that the Government data supports our view that the Great Koala National Park is the most important area of public land in NSW for koalas.

The CCNPA believes strongly that the implementation of the Great Koala National Park, if properly supported, will provide considerable social, economic and environmental benefits to the local and regional communities. It can potentially provide a major ecotourism attraction for local, regional, state, national and international tourists.

The submission seeks to address the majority of the TOR's but with an emphasis on depth information for the proposed Great Koala National Park on the effectiveness of State Environmental Planning Policy 44 - Koala Habitat Protection

The CCNPA requests an opportunity to appear before your Committee and to accompany you on a field trip within the proposed Great Koala National Park and to key sites relating to Coffs LGA Koala Plan of Management.

Yours sincerely,

Kevin Evans Interim Chair Coffs Coast Branch NSW National Parks Association.

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#### Terms of reference (TOR)

The overarching TOR requires the Committee to "...Inquire and report on actions, policies and funding by government to ensure healthy, sustainable koala populations and habitat in New South Wales,"

The Overarching TOR assumes that there is a model or a framework that represents a healthy, sustainable koala populations and habitat in NSW.

The CCNPA submission will seek to help to define and interpret that model and develop a pathway to achieve it.

A teasing out of the overarching TOR is :

Healthy koala populations are ones that are relatively free from disease and injuries and the stressors that lead to disease and have ; -regular and adequate assessment and reporting of population health, and -comprehensive and adequate assessment, treatment and caring for sick and injured koalas,	Sustainable koala populations are ones that; - are viable in the long term and - are at least stable and preferably able to expand if numbers are below optimal, and - are subject to regular monitoring assessment and reporting of population viability
<ul> <li>Healthy koala habitat is habitat that is:</li> <li>- adequate in extent and</li></ul>	Sustainable koala habitat is;
arrangement to maintain viable	- habitat that is securely protected
populations , <li>- has good connectivity connections</li> <li>- has a policy and action framework</li>	as far as possible ,
in place to reduce threats, <li>- has a commitment to recover</li>	- habitat that is able to persist and
degraded habitat and, <li>- is managed to provide good habitat</li>	regenerate, and
conditions for the species in	- is monitored and reported on
perpetuity.	regularly

Habitat loss and degradation is widely recognised as the single biggest factor impacting on koala populations in NSW."

Interpreted into contemporary conservation, planning and management approaches the CCNPA believes these outcomes can be best achieved by a model that includes:

1. A comprehensive, adequate and representative reserve system for koalas (throughout their range as far as is practicably possible).

- 2. A commitment to appropriately manage and, as necessary, restore the koala reserve system.
- 3. Promotion of the highest level of recognition of koala reserves.
- 4. Promotion of appreciation of koalas and koala reserves.
- 5. A Commitment to a network of functioning connectivity between reserves.
- 6. A commitment to reduce threats to koalas across their range.
- 7. A koala welfare system with adequate government support.
- 8. A research program for habitat and disease, monitoring and management.
- 9. A Commitment to a koala population based and scientifically supported and participatory management approach to koalas across all tenures.

In application the CCNPA believes this translates outcomes including :

- 1. A comprehensive, adequate , representative and reserve system for koalas (throughout their range as far as is practicably possible )
  - establishment of a the Great Koala National Park
  - establishment of a network of koala national parks as identified by the NPA 50 new parks and other NPA reserve proposals
  - identification and protection of other koala climate refuge as a matter of urgency.
  - and end to industrialised logging on public land that destroys habitat quality for koalas
- 2. A commitment to appropriately manage and as necessary restore the koala reserve system
  - to adequate resourcing and staffing model for park management
  - to a just transition for affected timber workers
  - to Joint management or Aboriginal ownership and leaseback of koala reserves

#### 3. Promotion of the highest level of recognition of koala reserves.

- assessment and nomination of the 'best of the best' of koala reserves for World Heritage listing potentially in association with other forest criteria assessment and nomination

#### 4. Promotion of appreciation of koalas and koala reserves.

- implementing World class education and ecotourism programs

#### 5. A Commitment to a network of connectivity between reserves.

- protect 'koala hubs' (areas identified by the Office of Environment and Heritage as particularly important for koalas) immediately on all land tenures
- independent identification and confirmation of the requirements for connectivity
- establish and supported local koala committees to address local management issues
- strengthen SEPP 44 (koala habitat protection) to ensure koala habitat is not destroyed by urban development, dogs and vehicles ,

- protect known koala habitat from land clearing by identifying it as Category 2sensitive land or Areas of Outstanding Biodiversity Value, and
- urgently require local governments to complete the mapping of koala habitat for holistic protection.

#### 6. A commitment to reduce threats to koalas across their range.

- initiate a state regional and local approach to threat mitigation
- ensure Private Native Forestry is genuinely low-impact and selective.
- A koala welfare system with adequate government support.
  develop and implement in consultation with carers groups a model for support.
- A research program for habitat ,disease, monitoring and management.
   develop in consultation with all stakeholders a model for research and monitoring and timely delivery of outcomes.

## 9. A commitment to a koala population management based and scientifically supported and participatory approach to manage koala populations across all tenures.

Whilst providing a model above for achieving the Inquirie's task we have addressed key components of the TOR's separately in the following sections of this submission.

# (a) 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,

**Trends -** Conservation groups have undertaken targeted campaigns toward koala conservation on the North Coast for almost fifty years .

We are gravely concerned that koala populations on the North Coast have crashed by 50% over the past 20 years, and that the increase in land clearing and reduction in logging rules will likely see them made extinct in the wild within the next 30 years. Koala populations have crashed by 50% because they generally prefer the more productive forests left on the coastal floodplains and foothills, the forests that have been most targeted for clearing, logging and urbanisation. If koalas are to be given a chance it is essential that all remaining colonies be identified and fully protected.

**Key threats** -Within a given area koalas will firstly select feed trees based on species, and secondarily on size, preferring trees over 30cm diameter, with use increasing in line with tree size. They also utilise understory trees for shelter on hot or windy days. In good habitat they have stable home ranges, with a male overlapping a number of females. Logging is targeting the mature trees preferred by koalas for feeding, with less feed trees there are less koalas and social systems can break down.

For the past 20 years the Forestry Corporation was meant to thoroughly search for koala scats (faecal pellets) ahead of logging. Where small numbers of scats are found token feed trees (5 of any size per ha) were required to be retained. Where there were abundant scats they were required to protect small areas around the scats as koala High Use Areas. Because the Forestry Corporation normally refused to do thorough searches, and because of the minimal protection when found, only some 13 hectares of koala habitat were protected in any year, and they are allowed to be logged the next time around. On private land there

are few records of Koalas and no need to look before logging, so most Koala habitat is indiscriminately logged.

The Government has decided to remove the need for the Forestry Corporation to look before they log and are instead required to protect 10 Koala feed trees per ha over 20cm diameter in modelled high quality habitat and 5 per ha is medium quality habitat. The EPA recommended that it should be 25 feed trees per ha over 25cm diameter in high quality habitat and 15 trees per hectare in moderate quality habitat. The NRC over-rode the EPA to support the Forestry Corporation.

The 2018 OEH submission to the IFOA laments that there will "be a reduction in protections offered to koalas", with Koala feed tree retention rates "less than half those originally proposed by the Expert Fauna Panel".

It is outrageous that 43% of the high quality Koala habitat on State Forests identified by DPI-Forestry is in the North Coast Intensive Logging Zone where clearfelling will be the norm.

It is evident that the Forestry Corporation cannot be trusted to provide the required protection for core koala habitat and have instead been routinely logging it.

#### **Resource availability**

A key commitment of the NSW Government has been that the new Integrated Forestry Operations Approval (IFOA), will result in "no net change to wood supply and no erosion of environmental values".

Unfortunately there were numerous reductions in environmental constraints that were agreed between the agencies, or imposed by the Natural Resources Commission (NRC) at the behest of the Forestry Corporation, in negotiating the new IFOA on the basis of the need to maintain current timber yields for the next 100 years.

Even then the NRC (2016) claimed that "it is not possible to meet the Government's commitments around both environmental values and wood supply", maintaining there would be a shortfall in commitments from north-east NSW of 7,600 to 8,600 m3 /yr of High Quality Logs (HQL) due to protections for Endangered Ecological Communities and koalas.

To make up this claimed shortfall the Government decided to log oldgrowth forests and rainforest protected in the reserve system. The shock NRC decision was apparently based on their assessment of ~180,000 m3 /pa harvest volume (avg over 100 years) **supplied from the native forest estate only**", noting: 180,000m3 /yr is the average annual HQ supply estimated to be available when modelling native forest growth over a 100 year planning timeframe (from the model where TEC mapped areas are excluded from net harvestable area).

Wood Supply Agreement (WSA) commitments of HQL are based on yields from both native forests and hardwood plantations. The decision to establish over 10,000 ha of new hardwood plantations as an outcome of the RFA was specifically to increase the supply of HQL in the long-term.

It is thus perplexing as to why the NRC excluded plantation sawlogs in their assessment. By doing so they turned an identified average yield of 237,000 m3 /yr of HQL over the next 100 years, a surplus of 10,000 - 20,000 m3 /yr (depending on

### whether small poles are included) above current WSAs, into a claimed potential shortfall in commitments from north-east NSW of 7,600 to 8,600 m3 /yr of HQL

With plantations included there is no shortfall in HQL resources and thus no need to log protected HCV oldgrowth or rainforest . In fact you could increase protection for Koala habitat and other important areas.

The decision to exclude plantations by the NRC should be thoroughly examined by the Inquiry or referred for independent review before this process proceeds any further.

#### Adequacy of protection

The Office of Environment and Heritage (OEH) has been involved in developing data on Koala habitat with the aim of implementing recommendations of the Independent Review into the Decline of Koala Populations in Key Areas of NSW (NSW Chief Scientist and Engineer 2016), specifically:

*•• Identify key koala populations and management areas which have the potential for long term recovery and viability* 

• Identify priority threats to key koala populations at the population scale

• That government agencies identify priority areas of land across tenures to target for koala conservation management and threat mitigation."

This, and associated reports and data, were released to the National Parks Association under a Government Information (Public Access) request.

The outcomes of the OEH assessments are compared below to the NSW Government's Koala Reserves and the NPA's proposed Great Koala National Park.

OEH has applied the available data to identify and map 48 Areas of Regional Koala Significance (ARKS) and the distribution of habitat and threats within each of them. This has been supplemented by analyses of Koala records to "define areas of currently known significant koala occupancy that indicate clusters of resident populations known as Koala Hubs". These are the priority areas identified for protection.

As identified by Rennison and Fisher (2018): The fickle nature of koala distribution patterns in NSW highlights the importance of investing significant effort to identify lands currently occupied by koalas, and to focus on the protection of koalas where they reside, rather than protecting habitat as a surrogate for koala occupancy.

Most significantly OEH have utilised available Koala records to identify 19,755 ha of Koala Hubs on State Forests "currently known for protection". While not exhaustive, on the basis of available data, these are known to be the most important areas for Koala protection and should be immediately placed under a moratorium, along with a kilometre buffer, until they are more fully investigated and the needed meaningful Koala reserves established.

A review of the Koala Hubs identifies: that of the total 101,821 ha of Koala Hubs identified in NSW,

65% occur on private lands,

19% on State Forests and

16% on National Parks.

Of the 19,755 ha of Koala Hubs identified on State Forests, 15,522 ha occurs in north east NSW with some 12,324 ha (79%) outside exclusion areas (Forest Management Zones 1, 2 and 3) and thus available for logging. Of the total area of Koala Hubs on State Forests in north-east NSW 5,130 ha is within the proposed North Coast Intensive Zone, which will be open to widespread clearfelling.

A review of the NSW Governments 12 proposed Koala Reserves which underpin their Koala Strategy identifies :

• Ten are already protected as part of the informal reserve system (as FMZs 2 and 3)

• Only 3 have high quality Koala habitat as modelled by DPI-Forestry identified within them, and 2 of these have no recent records to substantiate the models.

• Four have no records of Koalas, and only 2 have records within the past 10 years.

• Four are totally outside the OEH's Areas of Regional Koala Significance (ARKS) and two are mostly outside ARKS.

• Only 3 contain Koala Hubs, totalling just 181 ha (0.9%) of the Koala Hubs on State Forests.

• Only 3 can in part be justified to contain high quality Koala habitat, and these exclude adjacent areas of high quality habitat.

It is apparent that there was no credible process undertaken to identify the Koala Reserves and that OEH's ARCS and Koala Hubs, along with DPI's modelled Koala habitat and Koala records, were ignored in the Government's selection of reserves. They are indeed a sham.

Conversely, the proposed Great Koala National Park encompasses 8,697 ha (44%) of NSW's Koala Hubs on State Forests in 2 ARKS. The OEH data strongly supports its exceptional importance of for Koala conservation in NSW.

It similarly supports the NPA's 50 new parks koala reserve proposals . The CCNPA supports In the National Parks Association and NEFA recommendations that :

- 1. The importance of the Great Koala National Park means it should be created as a priority step towards genuine koala conservation.
- 2. The NSW Government must place all koala hubs on state forests, along with buffers of a minimum of 1km, under a moratorium from logging until further assessments are undertaken to identify boundaries of koala usage and determine meaningful and climate-resilient koala reserves. Given the identified importance of riparian vegetation in maintaining koala populations during droughts the government must rethink its intention to reduce headwater stream buffers via the new logging laws.
- 3. For land clearing and private native forestry (PNF) existing data must be applied to identify areas of potential high-quality koala habitat and habitat linkages within ARKS

for protection. For PNF, current koala prescriptions, including protection of all primary feed trees over 30cm in diameter, should be applied in all identified koala habitat.

- 4. Around the key urban areas (i.e. Potsville Bogangar; Lismore; Brunswick Heads Byron Bay; Iluka; Coffs Harbour Repton; Port Macquarie; Nelson Bay Raymond Terrace; Campbelltown -Wollondilly Southern Highlands; Bermagui) there is an urgent need to build on existing work and SEPP 44 by getting a panel of independent experts to prepare koala plans that identify: remnant koala habitat for protection; corridors; key road crossings; key urban areas for encouragement of koala friendly measures (e.g. speed limits, koala friendly swimming pools, koala friendly fencing, control of roaming dogs); areas for replanting and funding requirements.
- 5. Current threats to koala habitat (logging, land clearing, urban development and PNF) are being considered in isolation by the NSW government, which poses huge threats to koala hubs and ARKS. There is an urgent need for the Federal Environment Minister to use powers under the Environment Protection and Biodiversity Conservation Act to intervene and consider cumulative impacts on the species before impacts worsen, with a view to concrete measures to protect koala habitat.

## (b) the impacts on koalas and koala habitat from: (i) the Coastal Integrated Forestry Operations Approvals and Regional Forest Agreements,

The impact on koalas and koala habitat from the Coastal Integrated Forestry Operations Approvals and Regional Forest Agreements can be understood by assessing recent logging by the Forestry Corporation of Koala Hubs as identified by the Office of Environment and Heritage.

Koala populations in NSW are in precipitous decline. The threats are immense in coastal areas (where most hubs are), making the protection of the 19,785 ha of Koala Hubs on State Forests in hinterland areas the highest priority for the basis of a koala reserve system to safeguard core koala populations and begin to stabilise koala numbers.

Further work has been undertaken by WWF which identifies Koala Reserves based on a broader analysis of Koala Hubs, though this assessment is limited to Koala Hubs as identified by OEH. This review found that of the OEH Koala Hubs on State forests in northeast NSW, 2,546 ha has been logged over the 4 year assessment period 2015-2018, which is an average of 636 ha logged per annum within Koala Hubs.

It is assumed that some 430 ha of Koala hubs have so far been logged since they were identified. Many more are proposed for logging in current harvesting plans, Outside exclusion zones and plantations there are 12,253 ha of Koala Hubs identified in State Forests, which means that over the past 4 years 21% of the loggable area of Koala Hubs within native forests on State Forests have been logged. Many of these have been logged well in excess of allowable logging intensities, with significant areas subjected to the unlawful logging practices of heavy and regeneration Single Tree Retention. Of the 2,546 ha logged from 2015-2018, 1,283 ha (50%) has been modelled by DPI Forestry (Law et. al. 2017) as high quality koala habitat and 574 ha (23%) as medium quality habitat. There are also 590 koala records within the logged areas of the Koala Hubs. These confirm the importance of these areas for koalas, and emphasise that this should have been well known to the Forestry Corporation before they were logged.

Over the period 2015 to March 2017 in the Lower North East forestry region, of these logged Koala hubs 22 ha is identified as being subject to the unlawful logging regimes of Regeneration Single Tree Retention (STS), 116 ha to heavy STS, and 348 ha to medium STS.

It is evident from Harvesting Plans that intensive logging of Koala Hubs is more widespread than indicated by these figures, which is also shown by satellite images. This shows that many of these Koala Hubs, and surrounding areas, were subject to more intensive logging than the logging rules allowed.

It is essential for the future of koalas that a moratorium be immediately placed on all remaining OEH Koala Hubs on State Forests, along with potential habitat within one kilometre, while further ground based assessments are undertaken to delineate the full extent these "highly significant" resident populations which, based on current records, are the highest priority for protection on public lands.

NEFA has prepared a detailed report on logging in Koala hubs, from which most of the above data has been sourced, see:

https://assets.nationbuilder.com/ncec/pages/40/attachments/original/1552535918/Forestry | ogging of OEH Koala Hubs.pdf?1552535918

#### (ii) the Private Native Forestry Code of Practice,

It is evident that Private Native Forestry has never been undertaken on an Ecologically Sustainable basis because of;

- political interventions, lack of political will,
- opposition from some landholders,
- failure to adopt best practices,
- refusal to adopt science-based prescriptions and consider relevant environmental research,
- refusal to require pre-logging surveys and apply mitigation measures for threatened species,
- inadequate retention and recruitment of old trees,
- failure to undertake assessments to identify ecosystems and features requiring protection,
- inadequate protection of streams and riparian buffers,
- failure to take into account forest degradation and required rehabilitation,
- failure to monitor the effectiveness of prescriptions and apply adaptive management,
- failure to undertake effective regulation,
- secrecy surrounding PNF operations, and
- contempt for genuine community concerns.

The NSW Government needs to overcome its obsession that logging is the only possible use of native forests and begin promoting forests for all their values, while encouraging and facilitating conservation measures.

Private native forests forests have numerous non timber values, such as flora and fauna habitat, carbon sequestration and storage, attracting rainfall, regulating stream flows, aesthetic, recreation and spiritual values, that should be considered as part of any assessment of forests.

Private native forest assessment should consider these values and identify all opportunities for landholders, not just forestry, such as;

- conservation covenants,
- funding for bush rehabilitation,
- funding for habitat protection (i.e. core Koala habitat), biobanking,

- stewardship payments, and
- the potential for carbon credits for avoided emissions.

The Government needs to consider stewardship payments, assistance for the protection of high conservation value areas and providing annual payments to landowners for the volumes of carbon stored in their forests.

The preparation of a Property Vegetation Plan should be regarded as an opportunity to undertake a full assessment of all environmental values and constraints, including undertaking surveys for threatened species, as well as identifying all potential management options. It is the opportunity for landowners to learn about the values of their properties, management options and opportunities for funding assistance.

#### (iii) The old growth forest remapping and rezoning program

Based on fraudulent advice of resource shortfalls the NSW Government is intent on logging High Conservation Value (HCV) old growth and rainforest added to the Comprehensive Adequate and Representative (CAR) reserve system as Informal Reserves in 1998 and 2003.

The Government has changed the targets, criteria and methodology so that they can remap most old growth and rainforest out of existence. Then they intend to rescind the remapped forests designation as Special Management Zones under the Forestry Act and remove them from the NSW Heritage Register so they can be logged.

Irrespective of definitions and thresholds, those stands mapped as oldgrowth are the most intact stands remaining on State Forests as they are dominated by old and mature trees and have not been logged for at least 20 years (if ever).

They were identified as HCV because they are high quality habitat for an array of oldgrowth dependent fauna and/or make a significant contribution to multiple reserve targets. They provide refuges in a sea of regrowth and essential stepping stones linking National Parks.

Having agreed to these areas being protected, out of greed the logging industry wants them back.

According to the Forestry Corporation's own data there is no resource shortfall and no justification for removing these forests from the already inadequate reserve system for logging. The NSW Government should immediately rule out this assault on north east NSW's oldgrowth, rainforest and CAR reserve system.

For mapping they adopted the discredited criteria that are applied to Private Native Forestry (PNF). In the NRC's oldgrowth remapping trials they did not account for tree species that do not develop senescent crowns and reduced the regrowth threshold from less than 30% to less than 10% (automatically removing 13% of oldgrowth), used higher resolution photography that increases the visibility of regrowth (and therefore its percentage), undertook dubious disturbance assessments and thereby remapped 88% of HCV oldgrowth out of existence.

The NRC similarly used a different definition of rainforest than what was applied in the CRA, with NRC noting "*The primary difference is that the PNF definition excludes areas with emergent non-rainforest species that exceed 30 percent of the upper crown cover*" (including brushbox and turpentine). The trial remapping removed 62% of mapped rainforest.

The outcome of these multiple attacks is that of the 103,000 ha of HCV oldgrowth in Informal Reserves on State forests, up to 58,600ha (57%) may be opened up for logging using the

NRC's criteria and methodology. Of the 81,567ha of mapped rainforest up to 50,571 hectares could be opened up for logging

CCNPA does not accept the NRC's new targets or mapping criteria and methodologies as being valid or consistent with the national forest reserve criteria (JANIS). Nor do we accept that there may be some minor cases of mapping errors and that there was some logging of stands before they were protected, though this is true for the whole of the reserve system, and we does not accept this as a valid reason for removing such areas from the CAR reserve system.

Irrespective of definitions, the CCNPA considers those forests mapped as oldgrowth are of immense value as the most intact stands of forests left on State Forests as they:

- are part of the CAR reserve system,
- are dominated by oldgrowth and mature trees,
- are important koala habitat,
- have escaped the intensive logging of the past 20 years,
- have been identified as high conservation value for multiple attributes,
- provide important habitat attributes and refuge for numerous threatened fauna not provided for by regrowth,
- provide essential corridors and stepping stones between national parks,
- are important carbon storehouses,

(iv) the 2016 land management reforms, including the Local Land Services Amendment Act 2016 and associated regulations and codes. The NPA has not reviewed this TOR

#### (c) 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 NSW Koala Recovery Plan placed significant emphasis on protecting koala habitat on private land through SEPP 44 and Local Environment Plans (i.e. Actions 1.13, 1.15, 1.19, 1.20).

State Environmental Planning Policy No. 44 (Koala Habitat Protection) came into effect in 1995 with the aim to:

"encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline:

• by requiring the preparation of plans of management before development

- consent can be granted in relation to areas of core koala habitat, and
- by encouraging the identification of areas of core koala habitat."

Under the provisions of SEPP 44 local councils cannot approve development on lands greater than 1ha without an investigation of potential and core koala habitat. To this end SEPP 44 requires councils to address koala conservation through either Individual Koala Plans of Management (IKPoM) for a specific site/development, or Comprehensive Koala

Plans of Management (CKPoM) that will apply to part or the whole of a Local Government Area.

SEPP 44 encourages Councils to systematically identify areas of 'core koala habitat, stating that councils "should" conduct koala surveys, and take the results regarding core koala habitat into account when making environmental protection zones and development control plans

By encouraging the inclusion of areas of core koala habitat in environment protection zones". SEPP 44 identifies two classes of habitat:

1."core koala habitat" means an area of land with a resident population of koalas, evidenced by attributes such as breeding females (that is, females with young) and recent sightings of and historical records of a population, and

2. "potential koala habitat" means areas of native vegetation where the trees of the types listed in Schedule 2 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component.

In the 24 years since SEPP 44 came into force in 1995 with the objective of identifying and protecting core koala habitat on private lands **five** CKPoM plans have been adopted and approved by the Department of Planning and Environment, with two only for parts of Local Government Areas. Of the five Comprehensive Koala Plans of Management (CKPoM) approved the Coffs Harbour CKPoM and the recent Ballina CKPoM are the only ones to identify core koala habitat across the LGAs, and the Kempsey CKPoM only identifies two very small areas.

In 2007 the NSW Government finally gazetted a set of weakened mandatory rules to control logging on private land in NSW as a Regulation under the Native Vegetation Act 2003, with four Codes of Practice for separate geographic regions. The regulation came into effect on 1st August 2007.

Despite the requirements of the PNF Code the EPA have continued to issue PNF approvals for core koala habitat. It is clear that the NSW Recovery Plan's objective to conserve koalas in their existing habitat by identifying and protecting 'core koala habitat' in accordance with SEPP 44 and by LEP zoning has not been implemented.

For koalas, the specific provisions for the PNF Code of Practice are:

- (a) Forest operations are not permitted within any area identified as 'core koala habitat' within the meaning of State Environmental Planning Policy No. 44 – Koala Habitat Protection
- (b) Any tree containing a koala, or any tree beneath which 20 or more koala faecal pellets (scats) are found (or one or more koala faecal pellets in Koala Management Area 5) must be retained, and an exclusion zone of 20 metres (50 metres in Koala Management Area 5) must be implemented around each retained tree.
- (c) Where there is a record of a koala within an area of forest operations or within 500 metres of an area of forest operations or a koala faecal pellet (scat) is found beneath them canopy of any primary or secondary koala food tree, the following must apply;
  - (i) A minimum of 10 primary koala food trees and 5 secondary koala food trees must be retained per hectare of net harvesting area (not including other exclusion or buffer zones), where available.
  - (ii) These trees should preferably be spread evenly across the net harvesting area, have leafy, broad crowns and be in a range of size classes with a minimum of 30 centimetres diameter at breast height over bark.

- (iii) (iii) Damage to retained trees must be minimised by directional felling techniques.
- (iv) (iv) Post-harvest burns must minimise damage to the trunks and foliage of retained trees.

Clause (a) is next to useless as the intent of SEPP 44 to identify core koala habitat across private lands has not been implemented. Even where core koala habitat has been identified it does not guarantee protection.

Clauses (b) and (c), like all species specific provisions in the PNF Code of Practice, are triggered by either the existence of koala records in the Atlas of NSW Wildlife or the identification of the presence of koalas (or evidence of their presence) by the landholder and/or a logging operator. There are limited records in the Atlas of NSW Wildlife for forested private lands away from coastal towns, and they are by no means comprehensive.

The PNF Code of Practice does not require prelogging surveys for koalas or any other species, which means they are usually neither identified nor protected.

A brief history of koala conservation in Coffs Harbour LGA is provide below:

Coffs Harbour had a reputation for koalas well before Europeans arrived. *The "Turgaree or Native Bear" is a key feature of one of the earliest Kumbaingerie stories (Ryan 1964) and the koala was an important local "totem"* (Dick Kelly, local Aboriginal elder, pers. comm. to C. Moon 1991, quoted in CH KPoM).

Coffs Harbour is endowed with a rich biological diversity and koalas are the most prominent of the threatened fauna. For many people, Coffs Harbour provides the rare and exciting experience of seeing koalas in their natural habitat. In many other parts of New South Wales koalas have disappeared.

Nevertheless Koala conservation has been an issue in Coffs Harbour for 50 years Community campaigns raged through the 1980's to protect koala habitat at a number of locations around Coffs Harbour and Sawtell townships.

The 1986/87 NSW Koala Survey found that koalas were in serious decline in NSW, and the 1988 NSW Koala Summit recommended actions at a local government level to arrest this decline. Coffs Harbour was identified as a major koala population area in need of urgent attention.

The battles came to a head at a meeting of Coffs Harbour City Council in February 1989 prompting a bold heading in the Coffs Harbour Advocate on Wednesday 22 February, 1989 that ;

#### **"COUNCIL REFUSES TO PROTECT WILDLIFE"**

That Council meeting rejected moves to impose tree preservation orders to protect koalas on three areas in the city, being:

- 1. The next stage of Council's own Quenwill estate at Bayldon,
- 2. The proposed urban area between Lyons Road and Bonville creek, and
- 3. A proposed koala reserve on Roberts hill on the western edge of the town of coffs Harbour .

In regard to Roberts Hill, local residents had written to Coffs Harbour City Council in January 1988 requesting the establishment of a koala reserve, nature trail and lookout in the area. The residents noted then that '*The demise of koala habitats within our city boundaries is accelerating with greater development of our area...*"

The failure of representations led to holding a protest march held in September 1990 at which local protestors were arrested.

The Roberts Hill issue was dragged into to the Land and Environment Court in 1990 before resolution to protect the reserve . On ground action to restore koala habitat on Roberts Hill has taken longer really only gaining momentum in the last five years.

The City of Coffs Harbour has been identified as having one of NSW's largest koala populations . Coffs Harbour was at the time one of only a few localities in NSW where koalas can be described as common (Reed et al. 1990). This population, however, was identified at risk from problems associated with the rapid growth and development of the Coffs Harbour area.

In 1990/91 after much community debate the NPWS and Coffs Harbour Council initiated a community-based koala survey in the LGA. In 1992 the Koala was listed as a vulnerable species in NSW though the debate over protection of Koala habitat continued over the next 10 years.

Prior to the preparation of this plan little was known about the status and distribution of koalas in the Coffs Harbour LGA, nor had there been a study of the level of local support for koala conservation measures. It was recognised that a detailed local survey of the distribution of koalas was essential if planning was to be effective and site-specific.

SEPP 44 came into force in January 1995, requiring councils with koala populations to address koala conservation issues in their LGAs through either individual or shire-wide (Comprehensive) Koala Plans of Management (CKPoMs).

The adoption of SEPP 44 in 1995 led to the preparation over the next five years of koala management plans for ten individual areas and to progress towards a shire wide Koala Plan of Management which was adopted in 1999.

This was the first Comprehensive Koala Plan of Management to be prepared in New South Wales under State Environmental Planning Policy No. It was prepared as a joint initiative by the NSW National Parks and Wildlife Service and Coffs Harbour City Council.

The Plan's principal aim was to provide a framework for the conservation and management of koala habitat, and the management of threats to koalas, to ensure a permanent free-living population over their present range in Coffs Harbour LGA, and reverse the current trend of koala population decline.

A number of studies underpin the Plan. The 1990/91 community-based survey was followed by a study mapping and classifying the vegetation of Coffs Harbour, and a field-based koala habitat study based on these mapped vegetation units was carried out. Other local koala studies also helped in developing the Plan.

The south-eastern part of the LGA was found to contain the most significant areas of koala habitat and koala populations, although koalas occur in most parts of the LGA. In Coffs Harbour Tallowwood Eucalyptus microcorys is the tree species most preferred by koalas. Swamp Mahogany E. robusta, Grey Gum E. propinqua, Broad-leaved Paperbark Melaleuca quinquenervia, Flooded Gum E. grandis, Blackbutt E. pilularis and Forest Oak Allocasuarina torulosa are also used.

The **objectives** of this KPoM for the City of Coffs Harbour are to:

• meet the objectives of SEPP 44 with respect to Coffs Harbour Local Government Area (LGA);

• identify the locations of koala populations in Coffs Harbour LGA;

• protect important koala habitat such that viable koala populations will be maintained across their current range within the Coffs Harbour LGA;

• stabilise or reverse the threats to koalas, particularly habitat clearing and fragmentation, and high mortality levels from collision with vehicles, dog attack, fire and disease, particularly Chlamydia.

• manage and restore koala habitat;

• identify the responsibility for specific areas of management;

• involve the community in the process of local koala conservation;

• provide information and support for local koala care and welfare groups;

• provide a focus for a co-ordinated approach to koala management across the region.

The Plan makes provision for the following actions:

• Koala habitat will be protected through land use zoning, and development controls and standards, in the LEP, and through Councils Open Space Management Plans;

• The LEP 2000 will guide development adjacent to koala habitats, in koala habitat link areas and areas of scattered habitat remnants;

• Within the LGA, measures will be taken to reduce the threat to koalas from traffic at identified black spots, to reduce risks from domestic dogs on koalas, and koala habitat values will be considered in fire management strategies;

• Koala health and welfare issues in the LGA will continue to be managed by the Wildlife Information and Rescue Service (WIRES)

• A number of public education and research initiatives are recommended, and

• A Koala Advisory Committee to guide implementation of the Plan will be established.

Harbour LGA is listed on Schedule 1 of SEPP 44 along with its neighbouring LGAs: Ulmarra, Nymboida and Bellingen. Thus the region as a whole is included in SEPP 44.

In 2011, the North Coast Environment Council identified that since 2007 the Private Native Forestry (PNF) Division of the NSW Department of Environment, Climate Change and Water (DECCW) had approved 60 separate logging applications covering almost 2,000 hectares of the 19,000 ha identified core koala habitat in the **Coffs Harbour Local Government Area** contrary to SEPP 44. It is probable that before then logging was being undertaken in core Koala habitat using the PNF exemption.

The Sydney Morning Herald (4 January 2011) reported:

"The Department does not dispute the council's figures, but said the Coffs Harbour Koala Plan of Management, which identifies the vulnerable species' local habitats, is not officially gazetted. Because of this, the prohibition on logging that normally applies to important koala habitats under state environmental planning policies could not be enforced in that council area, the department's director of landscapes and ecosystems conservation, Tom Grosskopf, said. "We're helping them to get their plan updated and get it going," he said. But local environmentalists are appalled and have accused the department of playing word games. The Environment council's vice-president, Susie Russell, said the department knew full well where the region's key koala areas were. It had been integral in mapping the habitats, but was ignoring the results and approving their destruction. "

The callous disregard of the Government agencies for koalas is exemplified by the fact that it was NPWS (later incorporated into DECCW) who in 1999 identified core Koala habitat in the Coffs LGA in accordance with SEPP 44, then it was DECCW that in 2007 finalised the PNF Code of Practice that specifically excluded core koala habitat from logging, and it was DECCW that in 2007 began systematically approving logging of core Koala habitat in the Coffs Harbour LGA in contravention of the PNF Code, with 2,000 of the 19,000 ha of identified core Koala habitat approved for PNF by 2010.

The following summary of limitations of the Coffs Harbour KPoM , prepared under provisions of SEPP 44 have been identified by a former senior Council staffer:

1. Erosion of KPoM provisions under State government exemptions for land clearing on rural land including the introduction of RAMAs and new native vegetation clearing codes that undermine mapped koala habitat and severe important linkages and corridors.

2. Offsetting allowed under primary secondary and tertiary habitat enabled under the KPoM has led to a 'death by a thousand cuts' for areas mapped as koala habitat where developers take advantage of options to replace high quality habitat with inferior plantings under a Vegetation Management Plan (VMP).

3. The introduction of Private Native Forestry (PNF) has had a devastating impact on core koala habitat particularly after the State government refused to acknowledge the three levels of koala habitat (primary, secondary & tertiary) as core koala habitat within the meaning of SEPP44. This is despite Council arguing strongly to the contrary to the point where it engaged a QC to argue its case.

4. While State forests do not fall under an adopted KPoM they provide substantial areas of breeding habitat and important linkages across the landscape. State forests often adjoin areas mapped as koala habitat under the Coffs KPoM and account for approximately 30% of the forested areas in the LGA. The IFOA has had a devastating impact on the quality and extent of available habitat for koalas in State forests as large volumes of large diameter trees have been replaced with young juvenile trees. This also makes forested landscapes particularly prone to frequent and intense wildlfires which can wipe out large populations in a single event. The recent introduction of the Coastal IFOA enabled by a rolled-over Regional Forest Agreement (RFA) of 20 years duration will see an increase in forest destruction at a magnitude not seen on the North Coast before. This will severely limit opportunities to maintain sustainable koala populations in many areas.

5. The State Government adoption of Biobanking has enabled development in areas of primary, secondary and tertiary koala habitat. It's yet to be seen what the impact of Biodiversity Development Assessment Reports (BDARs) under the *Biodiversity Conservation Act* 2016 will have on koala habitat as it enables development, albeit at a greater cost to the developer.

The Coffs harbour Koala Plan of Management was subject to a formal independent review in 2011. The results of the review has not been widely circulate nor formally considered by Council

The review of SEPP 44 has been underway for some time.

Between 18 November 2016 and 03 March 2017 The NSW Government sought feedback on the Explanation of Intended Effect (EIE) of proposed amendments to State Environmental Planning Policy 44.

The EIE described how the various parts of the proposed amendment will work and what they are seeking to achieve. The key changes the proposed amended SEPP will implement relate to the:

• definitions of koala habitat;

- list of tree species;
- · list of councils; and
- development assessment process.

To support the proposed amendment of the SEPP, the Department proposed to prepare updated guidelines that clearly:

set out the requirements for preparing comprehensive plans of management; and
direct the consistent assessment of development applications.

The Department also proposed the strategic planning outcomes in SEPP 44 be transferred to the more appropriate setting of the Local Planning Directions under section 117 of the Act.

The CCNPA is concerned the proposed revision of SEPP44 was not accompanied by a published review of the effectiveness of the application of the policy over the last twenty years. The lack of any published review of SEPP 44 to date substantially limits the extent the NPA could assess whether the revision would increase its effectiveness.

The review of SEPP 44 was undertaken at the same time as the NSW Chief Scientist report to prepare a "Koala Management Strategy" for NSW which will effectively replace the 2008 Koala Recovery Plan.

The CCNPA believes the intent of the proposed amendment to SEPP 44 is too narrow and its role in the NSW koala conservation planning process is conflicted by the concurrent release of the Chief Scientists report and call for submissions on that report also up until the 3<sup>rd</sup> March 2017.

Recommendation 4, (p36) of the Chief Scientist's report states

" That the Government improve outcomes for koalas through changes to the planning system."

Under this recommendation the Chief Scientist's report goes on to say:

"In addition to the current review of SEPP 44, within 12 months of receipt of this report Government should start a broader evaluation of the effectiveness of SEPP 44 as a planning tool and the Comprehensive Koala Plans of Management for protecting koalas and their habitat."

The first recommendation from the Chief Scientists report;

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

provides a strong statement of direction for integration of SEPP 44 into a whole of government approach towards koala conservation.

A copy of the NSW National Parks Association (NPA)submission to the EIE as part of its final March 2017 submission titled "Whole of Government Koala Strategy; Saving Our Species Draft Strategy and Review of State Environment Planning Policy 44—Koala Habitat Protection" see: https://drive.google.com/drive/folders/0B\_ZbagoizgjzZ1ZLRTh3N19OeU0

Many other conservation groups made recommendations to the EIE and The Committee should seek access to the submissions or at least to a review of them and determine the status of the review.

The NPA submission noted the revision of SEPP 44 is long overdue and some of the changes proposed have the ability to improve outcomes for koalas. However SEPP 44 interacts with many other pieces of legislation, one of which, PNF, is due for review. Unless the revised SEPP—and the as yet unseen guidelines and definitions—effectively deal with these interactions and confer the ability of local governments to effectively protect koalas the

revision will make little difference to the steep declines in koala populations across NSW. In particular, changing the definition of 'core' koala habitat has far reaching implications for CKPoMs, koala habitat mapping and PNF and urgent consideration should be given as to how these implications are addressed.

The NPA Submission included sixteen recommendations which are supported by the CCNPA. In addition the CCNPA makes the following findings and recommendations:

- The aim of SEPP 44, to protect koala habitat and to ensure a permanent free-living population over the present range and reverse the current trend of koala population cannot be achieved without a whole of government and soundly ecologically based planning process across all land tenures.
- Without amendment, the current SEPP 44 applies to koala populations on selective tenures (private land) which are dissected by artificial (LGA) boundaries which, in an ecological context, have no relation to those populations.
- The application of the SEPP should be broadened to include all land tenures. The current restriction of SEPP 44 to private land only results in practise to more strict land use controls applying to private land than applying to adjoining State Forests.
- SEPP 44 should be more fully reviewed and incorporated into a whole of Government approach to koala conservation as recommended by the Chief Scientist.
- If there is any will to protect koalas then it is essential that significant resources be put into mapping core koala habitat across priority private lands and retaining the current requirement to exclude logging from core koala habitat.

#### **Monitoring and Research**

The NSW Koala Strategy released on the 6 May 2018 includes an ambitious list of monitoring and research projects. The Government is likely to report on the Strategy in glowing and exaggerated terms.

From the tardiness in the relevant agencies completing and publicly reporting on koala SOS projects to date , little different is expected from the Strategy. Questions should be asked as to the implementation, independence ,(where claimed or considered appropriate ) reporting and scheduled reporting on the projects

For example selected extracts are quoted and commented on below :

#### "Monitoring

The Office of Environment and Heritage is developing a statewide monitoring program in partnership with other agencies. We will monitor koala populations and their habitat, and measure the effect of the actions in this Strategy. The program will start with 10 to 30 sites across different koala habitats and land tenures. At these sites, the responsible land manager will monitor and report on:

• the distribution, size, demography, genetic diversity and trends of the koala population

- the extent and quality of habitat
- the distribution, intensity and impact of threats to koalas
- the health of koalas
- the impact of management actions.

The monitoring program will also be linked to the local community actions so that we are monitoring outcomes from that investment, and linked to fauna rehabilitation to gather data and learn from that important work. All information we collect about koalas will be publicly available through the NSW Government's Sharing and Enabling Environmental Data (SEED) portal."

#### Appropriate questions to the Government on monitoring :

- Has the monitoring program been designed as yet
- Has it or will it be subject to independent review.
- Why monitoring is not to be independently conducted rather than conducted by "the agencies"

#### "Implementing, reporting on and evaluating the Strategy

The Office of Environment and Heritage will coordinate implementation of the Strategy through an inter-agency committee of senior officers from NSW Government agencies. The inter-agency committee will:

• advise on the development of the local actions for koala populations

• report to the Minister for the Environment each year on progress in implementing the threeyear statewide action plan and local actions.

To inform the annual progress report and to achieve an adaptive management approach, an annual meeting will be convened with the NSW Chief Scientist & Engineer and other independent expert panel members to review the work completed during the year and provide advice on priorities for the coming year.

Annual progress reports will be published on the Office of Environment and Heritage website.

In three years we will evaluate the progress of statewide and local actions and reassess the priorities for further actions. We will consider the lessons learned and how they could apply to the management of other threatened species.

The NSW Chief Scientist & Engineer and independent experts will be engaged in the threeyear evaluation. Learnings from evaluating the Strategy will help inform what we do for other threatened species in New South Wales."

#### Appropriate questions

- Has the first annual report been prepared and released
- Has the Chief Scientist and other independent expert panel members reviewed the annual report and are their comments available

#### "Supporting priority research

The NSW Government will invest funds to deliver priority research under a research plan to be informed by a research symposium.

Current knowledge gaps include:

- causes and impacts of disease
- bushfire risk and the impact of bushfire management activities such as planned burns to address the risk
- future habitat availability
- impacts and potential benefits of translocation.

Funding to support the research plan will help leverage additional funds by supporting linkage grants and partnerships with other research institutions. A further investment will be made to research the impacts of natural hazards and weather events on koalas. Focus areas for this research include:

• the links between heatwave and other threats to koalas such as the onset of chlamydia

• changes in availability of preferred koala habitat including eucalypt leaf quality

bushfire forecasting.

#### Research on koala responses to native forest harvesting

The Natural Resource's Commission will deliver an independent research project to better understand how koalas are responding to regeneration harvesting on the North Coast of NSW. The project will be government funded and peer-reviewed."

#### Appropriate questions

- Is the research plan completed and available, if not when is it expected.
- Who is involved in the "*independent research project*" to better understand how koalas are responding to regenerating harvesting.
- How is independence of the regenerating harvesting research project being guaranteed .
- Are the former DPI Forestry staff heavily involved in the project.
- Has not the effects of regenerative or intensive harvesting on koalas been clearly known for 20 years
- Does the regenerative harvesting project have approproiate animal ethics approval

# (d) 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,

Conservation groups responded to community reports of dramatic declines in koala populations on the NSW North Coast by, in 2012 commencing a number of koala conservation assessments. Initial assessments were undertaken in five Local Government Areas on the upper mid-North Coast and hinterland areas (northern Kempsey, Nambucca, Bellingen, Coffs Harbour, Clarence Valley and Richmond Valley).

The Great Koala National Park and other reserve proposals were derived using community data and expert opinion from within the North Coast region and focused on describing and mapping the koala populations on the North Coast and hinterlands and identifying areas of state forest that contain koala habitat and would be best included within the reserve system.

This project used koala habitat mapping, combined with collated koala locality records and local knowledge of koala ecology and key habitat, to derive a number of mapped outputs relevant to koala conservation assessment and planning in the region, including:

- · Likely koala dispersal barriers;
- The identification of seven likely koala regional populations;

• Twenty-five likely koala sub-populations as focus areas for further targeted surveys, monitoring and research; and

• Three likely metapopulations (metapopulations being groupings of subpopulations that periodically exchange individuals):

see; <u>https://drive.google.com/drive/folders/0BxrDWhFTAAvBRy1qMnRqVGhFMm8</u>

#### 1. The Coffs Harbour—Guy Fawkes metapopulation

This is centred on the Coffs Harbour, northern Bellingen and south-western Clarence Valley LGAs, and extends from the coastal plains at Coffs Harbour/Bongil Bongil National Park west

through hinterland and escarpment forests to Guy Fawkes River National Park. This metapopulation is considered to be of national significance as a koala core area.

This same forest gradient has also been identified as significant in other conservation assessment and planning programs. It is clear that management programs need to be explored and promoted to ensure the long-term persistence of this critical forest area, where the Great Escarpment approaches the coast.

#### 2. The Bellinger—Nambucca—Macleay metapopulation

This extends south and west from the southern Bellingen LGA to encompass the Nambucca LGA and the northern part of the Kempsey LGA to the Macleay River valley. This koala metapopulation is also considered to be nationally significant.

In order to provide Koalas with the protection they need the National Parks Association have recently proposed the Great Koala National Park and a series of smaller Koala Parks throughout north east NSW. <u>(see A Blueprint for a Comprehensive Reserve System for Koalas on the North Coast of NSW)</u>.

The Great Koala National Park proposal included all public land with the Coffs Harbour - Guy Fawkes metapopulation and the Bellinger - Nambucca - Macleay metapopulation boundaries. It would add 175,000 ha of public state forests added to existing protected areas to form a continuous 315,000 ha reserve of public land (Fig 1) The proposed GKNP adjoins World Heritage-listed reserves, including New England and Dorrigo national parks and the Guy Fawkes National Park, to form a proposed conservation complex of half a million hectares extending from the tablelands to the Coast.

The Great Koala National Park contains 56% of all koala hubs in state forests on the north coast of NSW It is therefore no exaggeration to identify it as the most important area of public land in the state for koala conservation.



; Map of the Great Koala National Park proposal indicating state forests (pale green) and existing national parks (dark green). The park stretches from Woolgoolga in the north to South West Rocks in the south

The Office of Environment and Heritage (OEH) has been involved in developing data on Koala habitat with the aim of implementing recommendations of the Independent Review into the Decline of Koala Populations in Key Areas of NSW (NSW Chief Scientist and Engineer 2016), specifically:

- Identify key koala populations and management areas which have the potential for long term recovery and viability
- Identify priority threats to key koala populations at the population scale
- That government agencies identify priority areas of land across tenures to target for koala conservation management and threat mitigation

This, and associated reports and data, were released to the National Parks Association under a Government Information (Public Access) request.

This submission focuses on the outcomes of the OEH assessments and compares them to the NPA's proposed Great Koala National Park the NSW Government's Koala Reserves and. The OEH data has not been critically reviewed at this time, rather its outcomes have been applied to review conservation priorities for Koalas in eastern NSW.

OEH has applied the available data to identify and map 48 Areas of Regional Koala Significance (ARKS) and the distribution of habitat and threats within each of them. This has been supplemented by analyses of Koala records to "define areas of currently known significant koala occupancy that indicate clusters of resident populations known as Koala Hubs". These are the priority areas identified for protection.

As identified by Rennison and Fisher (2018): The fickle nature of koala distribution patterns in NSW highlights the importance of investing significant effort to identify lands currently occupied by koalas, and to focus on the protection of koalas where they reside, rather than protecting habitat as a surrogate for koala occupancy.

Most significantly OEH have utilised available Koala records to identify 19,755 ha of Koala Hubs on State Forests "currently known for protection". While not exhaustive, on the basis of available data, these are known to be the most important areas for Koala protection and should be immediately placed under a moratorium, along with a kilometre buffer, until they are more fully investigated and the needed meaningful Koala reserves established.

A review of the Koala Hubs identifies: • Of the total 101,821 ha of Koala Hubs identified in NSW, 65% occur on private lands, 19% on State Forests and 16% on National Parks. • Of the 19,755 ha of Koala Hubs identified on State Forests, 15,522 ha occurs in north east NSW with some 12,324 ha (79%) outside exclusion areas (Forest Management Zones 1, 2 and 3) and thus available for logging.

Of the total area of Koala Hubs on State Forests in north-east NSW 5,130 ha is within the proposed North Coast Intensive Zone, which will be open to widespread clearfelling. The proposals have subsequently been supported by OEH koala hubs mapping strongly supported by the 'koala hubs' data presented in WWF's Koala Habitat Conservation Plan with a high level of correspondence between WWF hubs and priority areas, data and analysis (Koala Hubs and Areas of Regional Koala Significance, ARKS) done by the NSW Office of Environment and Heritage (and by predictive habitat mapping from the Department of Primary Industries.

The fact that the Hubs and Arks data in most cases, including that of the Great Koala National Park, strongly corroborates the community reserve proposals and provides confidence that the reserves are well designed for koala protection. However, we acknowledge that contemporary surveys of some areas would be desirable in order to confirm the utility of the areas to koalas. For example recent citizen surveys in Roses Creek and Scotchman State Forests have identifies significant koala numbers in a section of the proposed great Koala national park outside the OEH koala hubs

The community initiated Great Koala National Park and other reserve proposals have some additional strengths relative to the OEH & WWF hubs data. The Hubs are based primarily on koala records analysed for a measure of persistence. Therefore, by their nature, hubs are likely to be biased towards areas of greater survey effort and/or areas where more people live and away from more remote hinterland areas and private land (the latter is typically under-surveyed). Using expert ecologist knowledge to analyse the landscape configuration, while incorporating knowledge of koala occurrence, distributions and population trends from local koala carers and conservationists, adds another layer to records-based analysis. Hence many of our reserve proposals include areas that were not identified as hubs.

The hubs data will likely overlook areas of occupied habitat that need protection to achieve an adequate koala reserve system. There is therefore an urgent need to undertake systematic regional surveys to identify all areas of resident populations to target for reservation if koalas are to achieve the protection required to halt their decline towards extinction. The hubs are those areas that the available data identify that we need to urgently reserve to protect resident populations. It will be necessary to protect and restore adjacent habitat to first stabilize, then grow, these core populations.

. A review of the NSW Governments 12 proposed Koala Reserves which underpin their Koala Strategy identifies :

- Ten are already protected as part of the informal reserve system (as FMZs 2 and 3)
- Only 3 have high quality Koala habitat as modelled by DPI-Forestry identified within them, and 2 of these have no recent records to substantiate the models.
- Four have no records of Koalas, and only 2 have records within the past 10 years.
- Four are totally outside the OEH's Areas of Regional Koala Significance (ARKS) and two are mostly outside ARKS.
- Only 3 contain Koala Hubs, totalling just 181 ha (0.9%) of the Koala Hubs on State Forests.
   Only 3 can in part be justified to contain high quality Koala habitat, and these exclude adjacent areas of high quality habitat.

It is apparent that there was no credible process undertaken to identify the Koala Reserves and that OEH's ARCS and Koala Hubs, along with DPI's modelled Koala habitat and Koala records, were ignored in the Government's selection of reserves.

Conversely, the National Parks Association's proposed Great Koala National Park encompasses 8,697 ha (44%) of NSW's Koala Hubs on State Forests in 2 ARKS. The OEH data strongly supports its exceptional importance of for Koala conservation in NSW.

It similarly supports the NPA's 50 new park proposals

The CCNPA also support the National Parks Association and NEFA recommendations that:

- 1. The importance of the Great Koala National Park means it should be created as a priority step towards genuine koala conservation.
- 2. The NSW Government must place all koala hubs on state forests, along with buffers of a minimum of 1km, under a moratorium from logging until further assessments are undertaken to identify boundaries of koala usage and determine meaningful and climate-resilient koala reserves. Given the identified importance of riparian vegetation in maintaining koala populations during droughts the government must rethink its intention to reduce headwater stream buffers via the new logging laws.
- 3. For land clearing and private native forestry (PNF) existing data must be applied to identify areas of potential high-quality koala habitat and habitat linkages within ARKS for protection. For PNF, current koala prescriptions, including protection of all primary feed trees over 30cm in diameter, should be applied in all identified koala habitat.
- 4.Around the key urban areas (i.e. Potsville Bogangar; Lismore; Brunswick Heads -Byron Bay; Iluka; Coffs Harbour - Repton; Port Macquarie; Nelson Bay - Raymond Terrace; Campbelltown -Wollondilly - Southern Highlands; Bermagui) there is an urgent need to build on existing work and SEPP 44 by getting a panel of independent experts to prepare koala plans that identify: remnant koala habitat for protection; corridors; key road crossings; key urban areas for encouragement of koala friendly measures (e.g. speed limits, koala friendly swimming pools, koala friendly fencing, control of roaming dogs); areas for replanting and funding requirements.
- 4. Current threats to koala habitat (logging, land clearing, urban development and PNF) are being considered in isolation by the NSW government, which poses huge threats to koala hubs and ARKS. There is an urgent need for the Federal Environment Minister to use powers under the Environment Protection and Biodiversity

Conservation Act to intervene and consider cumulative impacts on the species before impacts worsen, with a view to concrete measures to protect koala habitat.

The NPA's 50 new park proposals for koalas take the likely impacts of climate change on koalas and koala distribution into account to a degree, especially with reserve proposals that extend from the coast to the Great Dividing Range.

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

The Steering Committee has a view that the implementation of the Great Koala National Park, if properly supported, provide considerable social, economic and environmental benefits to the local and regional communities. It can potentially provide a major ecotourism attraction for local, regional, state, national and international tourists and the steering committee is working towards a project to quantify these claims.

In a study of Victoria's proposed Great Forest National Park (GFNP) commissioned by environment groups, Nous Group specialists reveal that could draw almost 380,000 extra visitors a year to the Central Highlands, add \$71 million annually to the local economy and generate 750 jobs with a little private investment, according to a new report by the Nous Group.

The Full Report can be found here: NOUS GFNP report

The Great Koala National Park steering committee has proposed a study along a similar approach for the proposed Great Koala National Park. The approach involves identifying different management scenarios and building blocks consistent with the park proposals.

Scenario 1 – Change in tenure and basic conservation management and repair

Scenario 2 – Publicly and privately funded ecotourism attraction

.Scenario 3 – The GKNP in a regional ecotourism model

#### Table 1. Proposed GKNP Indicative "Building blocks" and "scenarios"

Building blocks	Scenario 1	Scenario 2	Scenario 3
Park establishment	U	U	U
Park management	U	U	U
Koala habitat restoration	U	U	U
Koala centre of excellence	U	U	U
Private property support	U	U	U
World heritage Assessment	U	U	U
GKNP visitor centre Pine Creek		U	U
Bowraville visitor centre		U	U
Multi-day bushwalk		U	U
GKNP mountain bike network		U	U
" coast walk		U	U
" self-guided car tours		U	U
" coastal cycleway		U	U
" horseriding trails		U	U
" Fourwheel driving tours		U	U
" Local bushwalk network		U	U
Ecotourism support program		U	U

Identify nature based tourism	U	U
Dorrigo visitor centre upgrade		U
Sealy's lookout eucalypt theme visitor centre		U
Solitary islands Marine park Visitor centre		U
Coffs Harbour Aboriginal cultural heritage centre		U
Nambucca heads visitor centre		U
Schuttle bus networks		U

The project will assess the economic impacts of the proposed Great Koala National Park within each LGA in terms of:

- 1. Potential jobs, including categories of jobs.
- 2. Additional visitor nights, spend and occupancy rates generated in the LGA.
- 3. Multipliers per sector.

The Project, which has been described in more detail in the submission to your inquiry by the GKNP Steering Committee, will provide a written report outlining the objectives, methodology and analysis of the economic impacts dissected for each LGA.