



# Bellingen Environment Centre

*Dedicated to the conservation of the natural environment of the Bellinger valley since 1990*

## **Bellingen Environment Centre submission: whole of Government Koala Strategy; Saving Our Species draft strategy and Review of State Environment Planning Policy 44—Koala Habitat Protection**

### **Introduction**

The Bellingen Environment Centre (BEC) is a community-based organization established thirty years ago to support environmental protection activities in the Bellingen Valley.

The Bellingen valley is situated within two koala meta-populations of national significance (1). The BEC has observed with concern the decline in Koala populations in the Bellinger Valley and more broadly on the North Coast over the last 30 years.

The BEC has considerable experience in koala conservation issues and has support a range of koala conservation programs from land conservation and rehabilitation to animal care activities. For example:

- The BEC was heavily involved in identifying the controversial logging of Pine Creek State Forest which led in 2003 to the establishment of Bongil Bongil National Park.
- In 2012, the BEC and other local community groups supported an assessment of Koala populations on the Mid North Coast between the Richmond and the Macleay Rivers. From this assessment local groups developed the proposal to create the Great Koala National Park (GKNP) in the Coffs Harbour hinterland. The GKNP has attracted strong support from local and regional communities as well as more broadly.
- The BEC has also been recently been involved, with considerable regrets, in the process of developing a Koala Plan of Management for the coastal lowlands area of Bellingen Shire Council

The BEC also opposes native forest logging on public land and a return to broad-scale land clearing which interact with SEPP 44 and are very relevant to koala conservation. On these issues the BEC works closely with other conservation groups including the North Coast Environment Council, The North East Forest Alliance, the National Parks Association and the Nature Conservation Council and shares information and often adopts common positions and statements with these groups. In this case this submission shares a number of positions with other key groups.

The BEC appreciates the opportunity to comment on the whole of government koala strategy (the strategy), the Saving Our Species iconic koala project (the SOS project) and the Explanation of intended effect: State Environment and Planning Policy 44 (Koala Habitat Protection) (SEPP 44). Please note, The BEC made a submission on SEPP 44 in late 2016 prior to the deadline being extended which we have reattached at the end of this document.

A submission on the Explanation of intended effect: State Environment and Planning Policy 44 (Koala Habitat Protection) (SEPP 44), prepared in December 2016 is still relevant and included in this submission as attachment 2.

There is a widely held opinion that the koalas are the most poorly managed native species in NSW. This is despite being recognised at state and federal level as a threatened species and being the only species to have its own State Environmental Planning Policy (SEPP 44).



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It should therefore be relatively easy to bring forward recommendations for improving the lot of this iconic but unfortunate species, as it should have been some years ago to develop an effective State Environmental Planning Policy. Unfortunately both approaches appear to suffer from being developed by scientists and public servants whilst shut away in a deep cave from any direct public input.

Both approaches have suffered from a fear or reluctance of letting the community in at the policy development stages, of failing to show any real flair in approaches for bringing the key stakeholders together, or even in securing the sensible management of koala habitat on the Crown estate.

The Chief Scientists report as a result includes recommendations that are clearly self-evident, recommendations that support current departmental and institutional programs or research.

Amongst the self-evident recommendations are those for closer cooperation between agencies and between agencies and the community. Excluding direct community input from the preparation of the current report is not a good grounding for a radically restructured approach that is recognised as needed to turn around the decline of koalas.

It is disappointing that the report relies on a “desktop survey” to assess the concerns of interest groups and stakeholders regarding threats to koalas and their conservation.

Throughout the report there also seems to be an ignorance or lack of recognition or acceptance of the role of the community environment groups in koala conservation. Community environment groups have been strongly involved and influential in the setting aside of koala habitat in reserves on the North and South coast. In recent years, in close consultation with OEH staff, community environment groups have been responsible for the preliminary mapping and assessment of koala populations on the mid-north coast (1), on other areas of the North coast (NPA unpublished) and on the entire Tablelands and Western Slopes regions (2)

The BEC supports many other conservation groups in asking for an immediate moratorium on the clearing or logging of koala habitat until the whole-of-government plan to protect koalas is implemented.

The BEC also accepts that the Saving our Species (SOS) Action Toolbox is thorough and covers many threats to koalas—all of which are worthy of addressing. New protected areas must be a key part of the strategy as protecting existing habitat is cheaper and more effective than having to restore it later<sup>1</sup>. However, the SOS Action Toolbox does not explicitly recognise the need for new koala reserves. Without dealing effectively with the large issues like completing an comprehensive, adequate and representative reserve system, land clearing, logging and coastal development, the SOS is little more than tinkering.

The BEC specifically requests that the Government actively addresses all threats to koalas, but particularly focusses, as a priority, on the need to protect remaining koala habitat on both public and private land.

Comments on individual recommendations in the report are provided below:



## Recommendation 1.

***“That Government adopt a whole-of-government strategy for NSW with the objective of stabilising then starting to increase koala numbers”***

**This recommendation is strongly supported.** Currently different Ministers have responsibility for issues that affect koalas. For example, the Planning Minister administers SEPP 44, which covers private land, while the Primary Industry Minister and the Environment Minister are responsible for native forest logging and the Environment Minister for creating protected areas. This has meant that land-use decisions have not been in the best interests of koalas. There has been no process or mechanism to encourage collaboration between portfolios or agencies.

Rather than based on taking actions necessary to manage and mitigate priority threats to key koala populations the current arrangements direct different actions to different land tenures and different land parcels ( eg private land portions , forestry compartments and individual conservation reserves.)

## Recommendation 2.

***“The Government initiate a program to improve data on the number, location and occurrence of koalas in NSW, including trends over time , taking advantage of new sensor and communications technologies and data analytics within 12 months of receipt of this report.”***

This recommendation is strongly supported by BEC and the application should cover all land tenures. Despite the short timeframe it is important that the community has an opportunity to input to and review methodology for all assessments. The program should take account of the preliminary Koala mapping assessment program initiated by Community environment groups now covering most of NSW as discussed earlier in this submission.

The program initiated by Community environment groups included delineation of koala meta-populations, regional populations and sub-populations. Potential koala geographical barriers were delineated and for each population category, land area and tenure assessment were provided as well as estimates of population size, ,conservation status, density ,threats and confidence of estimates was provided .

The program proposed above should include participation by Community environment groups to the fullest practical extent.

## Recommendation 3

***“The government publish a state-wide predictive koala habitat map within three years of receipt of this report, with immediate priority given to improving coverage on the north coast.”***

This recommendation is strongly supported by BEC including the prioritising of the north coast for mapping. It is again important that the community has an opportunity to input to and review methodology for developing a state-wide predictive koala habitat map.

The BEC is aware that a recent trial mapping project by the NSW EPA (3) found that koala occurrence was not closely correlated with what was considered the best koala habitat. The

EPA suggested this was because models could not accurately account for disturbance



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history (fire and logging) or koala behaviour (they like to associate with other koalas). BEC believes that the money needed to produce a state-wide koala habitat map would be better spent employing ecologists to look for koalas. The mapping must be accompanied by on-ground surveys to determine koala locations

The mapping must apply to all land tenures with state forests identified as a further priority, preferably to be completed before the completion of the current Regional Forest Agreements.

The BEC is sceptical of the 36,000 population figure quoted in the Chief Scientist's report, although we recognise the figure was accompanied by information that the uncertainty around the estimate was high (70-100%) and that the trends of the populations broadly match other estimates (4). Our scepticism stems from accounts from koala carers across the NSW coast that local populations have declined and, often, largely disappeared. The 36,000 figure is significantly greater than the 21,000 estimated by the federal government in 2010, and greater even than the 31,400 estimated in 1990 (5). This highlights the need for the NSW government to urgently fund on-ground surveys to determine the size and trends of koala populations across the state.- the government must commit ample funding to locating and assessing koala populations throughout the state.

### **Recommendation 4.**

#### ***“The Government improve outcomes for koalas through changes to the planning system”***

The BEC strongly agrees with this recommendation. The limited results from SEPP 44 reflect its limitations which result from being a planning driven process rather than, more appropriately, an approach grounded in the science and the ecology of the species.

While the recommendation to improve planning outcomes for koalas is important and supported, there are many outstanding questions. The main question concerns the replacement of the definition of 'core' koala habitat as proposed in the SEPP 44 Explanation of Intended Effect. Currently, the 'core' koala habitat definition is used in koala plans of management so it's not clear what will happen to those plans when the definition changes. PNF is excluded from core koala habitat so the changed definition may render koalas vulnerable to PNF. And former Environment Minister Speakman suggested that core koala habitat would be protected under the new land clearing legislation. The government must therefore commit to improving protection of koala habitat via changes SEPP 44, not creating legal and technical loopholes for more habitat loss.

It is recommended that the Government defines 'core' habitat as land with a resident population of koalas, as evidenced by recent sightings or signs of koala usage, and high quality habitat (that may be currently unoccupied) with historical records of a population. 'Potential' habitat should be defined as native vegetation where known feed trees constitute at least 15% of the total number of trees in the upper or lower strata of the tree component and native vegetation with recent sightings or evidence of Koala usage.



## Recommendation 5

***“The Government improve outcomes for koalas through the Biodiversity Conservation Bill (now Act) and regulations.”***

The weakening of land clearing controls by the current government is a real obstacle to the protection of Koala habitat on private land. WWF estimated (6) as much as 2.2 million hectares of koala habitat could be at risk from the Equity Code that allows the clearing of 625ha in any three year period. This does not count the millions of paddock trees and clumps of trees that are important refuge habitat and stepping stones for koalas that are now at risk from ‘efficiency’ codes. The NSW government must commit to protecting koala habitat from being cleared to ensure that the Strategy is not undermined before it begins.

The government should make koala habitat exempt from code-based clearing under the new legislation

An immediate moratorium is required on clearing or logging of koala habitat: the Nature Conservation Council of NSW has recently written to the Environment Minister asking for a moratorium on logging in koala habitat pending an investigation into the impacts of logging on koalas. However, given the potential impact of land clearing under the new legislation, the government must commit to no clearing or logging in koala habitat pending the development of the whole of government strategy.

A moratorium on clearing or logging of koala habitat is required pending the development of the plan

## Recommendation 6

***“The government investigate models for guiding and incentivising collaborative best practice for new development and ongoing land use in areas of known koala populations across tenures, industries and land users.”***

With the creation of the Murrah Flora Reserves in far south NSW the government indicated it is aware that industrial logging is not compatible with koala conservation. The NSW EPA recently found that koala activity was strongly correlated with the size of their feed trees and the maturity of forests in northern NSW (7). With the end of the Regional Forest Agreements drawing near, the NSW government must commit to protecting koalas on public land by removing logging from all koala habitat.

All I koala habitat in public state forests should be permanently protected in the reserve network.

The NSW government has committed to reviewing Private Native Forestry (PNF) regulations. While BEC does not oppose properly regulated PNF, we have serious concerns about the number of current active PNF licences, the ability of the EPA to audit PNF compliance and reports of PNF being used a vehicle for ‘clearance by stealth’ on the north coast. Appropriate management of koala habitat on private land is key to complementing protected areas and the review of PNF should include strong protection for koala habitat.



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The PNF review should strengthen, not weaken, protections for koala habitat.

Koalas are one of the global flagship species most vulnerable to climate change (9). Increasing CO<sup>2</sup> levels makes their *Eucalyptus* food plants less palatable, and extremes of temperature are a major threat<sup>7</sup>. Academics predict that the range of koalas, and their feed trees, will shift eastwards in coming decades in response to climate change (9). In order to deal with this shift, it is vital that the NSW government urgently protects habitat in the east of the species range, and works to link these protected areas to western populations to ensure koalas have vegetated corridors through which to move.

It is essential for koala conservation that a reserve network with high east-west and north-south connectivity of koala habitat is established east of the Great Dividing Range to ensure koalas can respond to pressures of climate change. This could be achieved by purchasing private land, by changing the tenure of public land or through voluntary conservation means via support for organisations such as the Great Eastern Ranges Initiative.

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## **Recommendation 7**

***“That Government agencies identify priority areas of land across tenures to target for koala conservation management and threat mitigation”***

New protected areas must be a key part of the strategy as protecting existing habitat is cheaper and more effective than having to restore it later<sup>1</sup>. However, the SOS Action Toolbox does not explicitly recognise the need for new koala reserves. The Nature Conservation Council recently wrote to Minister Speakman urging him to make sure the SOS strategy is accompanied by new reservations in all of the SOS koala management areas. We are also urging the NSW government to implement the ‘Blueprint for a comprehensive reserve system for koalas (*Phascolarctos cinereus*) on the North Coast of New South Wales (8). This Blueprint and further recent studies ( NPA unpublished ) studies have suggested several new protected areas, estimated to include up to 9,450 koalas, created from public land and therefore readily achievable, known to be important for koalas including:

- The Great Koala National Park (GKNP) in the Coffs Harbour- Bellingen – Nambucca area would see 175,000ha of state forests added to existing conservation land. The area is estimated to contain up to 4,500 koalas, and has been repeatedly identified by the EPA, DPI and scientists as an important area for koalas. More details on the Great Koala National Park proposal are included as Appendix 1 to this report
- A proposal in the western Border Ranges, subject to the agreement of the Native Title holders, covering 32,234 ha over 13 state forests including Beaury, Richmond Range, Mt Lindesay, Unumgar and Yabbra that helps link seven existing World Heritage properties and a recognised biodiversity hotspot. The proposal is estimated to contain 1000 koalas.
- Sandy Creek National Park comprising Carwong and part of Royal Camp state forests near Casino in far north NSW. The 2,100ha proposal is estimated to contain 50-200 koalas.



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- Tweed Coastal Range National Park to protect 2550ha of habitat for the endangered Tweed koala population of approximately 140 animals.
- Port Macquarie to Camden Haven National Park: this proposal would add 1,855ha of state forest and crown land to existing reserves to protect approximately 2000 koalas.
- Bulga—Comboyne—Landsdown—Taree National Park: this proposal would ensure connectivity between western koala populations in the Tapin Tops area and those at Mount Goonook and Landsdowne by adding 40,650ha of state forests to existing reserves and would protect approximately 500-1000 koalas.
- Bowman National Park, north west of Gloucester, would add 15,750ha of Bowman and Barrington state forests to the protected area network to protect between 50-200 koalas.
- Extensions to Wallingat National Park, adjacent to Wallis Lake would add almost 4000ha of state forests (Wallingat and Bachelor) to the 6500ha Wallingat National Park to protect 200-500 koalas. This proposal would also greatly enhance connectivity between Booti Booti and Myall Lakes National Parks.
- Wang Wauk National Park, adjacent to Buladelah, would consist of 33,700ha of Wang Wauk and Buladelah state forests and protect between 250-700 koalas. This proposal would link to Wallingat National Park.

the NSW government recently announced that \$10 million would be made available to purchase important koala habitat. While this sounds like a lot of money and is welcome investment, it will only purchase approximately 6000ha of land on 2015 prices. To put this in perspective, 10 properties applying the equity code could clear this in a single year. Much more investment is needed, and reservations should also target important parcels of public land as this is a cost-effective means of protecting habitat. For example the GKNP would remove a key threat, logging, from 175,000ha of koala habitat for no purchase of land to protect two of the most important koala meta-populations in NSW.

The government must urgently protect koala habitat on public land as the most cost-effective strategy and private land investment made to complement this.

### **Recommendation 8**

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



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Community environment groups fit none of these categories in this recommendation and will therefore be excluded from consultation. The NSW government should commit to also consulting environment and community groups.

Consultation on koala conservation should encompass the entire community and not exclude the non-government environment and community sectors.

## **Recommendation 9.**

***“The Government establish the Australian museum as a preferred repository for koala genetic samples in NSW, and all data and metadata associated with these samples should be deposited into the SEED Environmental Data portal (extended if necessary to include flora and fauna)***

The program for collection of genetic information should not be restricted to injured and deceased Koalas and should be applied more broadly with clear objectives to improve conservation and population management. Scotts (1), in 2013 recommend for the Upper Mid North coast of NSW that that: “ *Targeted genetics- based research be funded to help characterize koala populations and to help determine appropriate koala management units in this region*” (p39)

## **Recommendation 10**

***“ The Government facilitate the exchange of information among land managers , local government, the research community and the broader community”***

Agreed and goes without saying. The fact that it has to be said in this report highlights to poor standard of koala management currently in place.

## **Recommendation 11**

***“The Government draws on Knowledge and shares information with local community members through a program that supports localised engagement between liason people and residents and industry.”***

Again this goes without saying. except that community environment groups fit none of these categories mentioned in support of this recommendation and will therefore be excluded from consultation. The NSW Government should commit to also consulting environment and community groups.

Consultation on koala conservation should encompass the entire community and not exclude the non-government environment and community sectors. Community environment groups are holders of considerable detailed local knowledge about koala population occurrence right across NSW.

## **References**

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## Appendix 1. (extracted from Scotts (1))

### The Great Koala National Park

Despite the global status of the koala as the second-most recognised animal in the world to the giant panda, the recent alarming population declines and ongoing threats, no nationally recognised reserve has yet been set aside in Australia to ensure the protection of the koala in the wild. By contrast, in China, reserves covering one million hectares of the panda's bamboo forest habitat have been established and are World Heritage listed<sup>8</sup>. Like the panda, koalas have highly specific food requirements<sup>9,10</sup> and eat exclusively low-nutrient leaves. This is likely a contributing factor to the vulnerability of koalas to human-driven land-use change.

The proposed Great Koala National Park (GKNP) is centred on two koala metapopulations on the Mid North Coast of New South Wales: the Coffs Harbour—Guy Fawkes metapopulation and the Bellinger—Nambucca—Macleay metapopulation (Figure 1). The metapopulations were identified by Scotts (2013)<sup>11</sup> based on a qualitative representation of likely habitat for koalas in the region. The proposed GKNP covers approximately 315,000 ha of public land and includes the all existing conservation reserves and state forests (no private land is identified in the proposal) within the defined metapopulation areas (Figure 2). Approximately 175,000 ha of State Forest would be added to the conservation estate (140,000 ha) to comprise the GKNP. The estimated koala population is up to 4,550 individuals making this by some distance the most important reserve koala reserve proposal in NSW.



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The GKNP also includes outstanding examples of other conservation features including extensive rainforests, World Heritage listed forests (the Gondwana Rainforests of Australia)<sup>12</sup> and other forests assessed for World Heritage listing<sup>13</sup>. The proposal includes extensive areas of eucalypt forests from a region recognized as having the most diverse tall eucalypt forests in the world. The eucalypt forests were accepted by the federal and NSW governments in the North East NSW Regional Forest Agreement 1999<sup>14</sup>, for assessment for potential World Heritage listing.

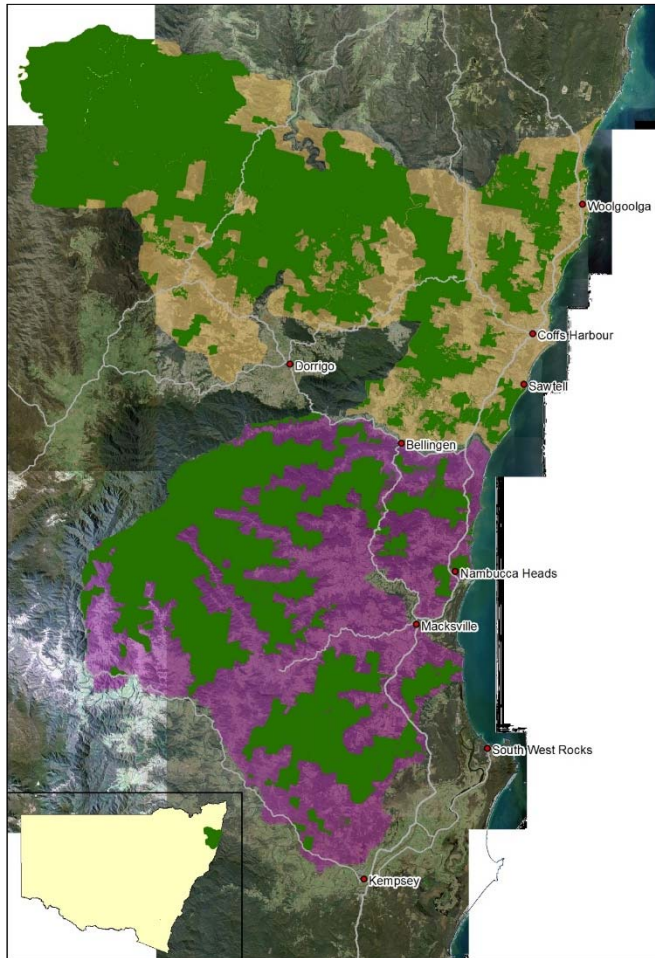


Figure 2: Geographical distribution of the Coffs Harbour—Guy Fawkes (yellow polygon) and the Bellenger—Nambucca—Macleay (purple polygon) koala metapopulations. The proposed Great Koala National Park is shown in green.

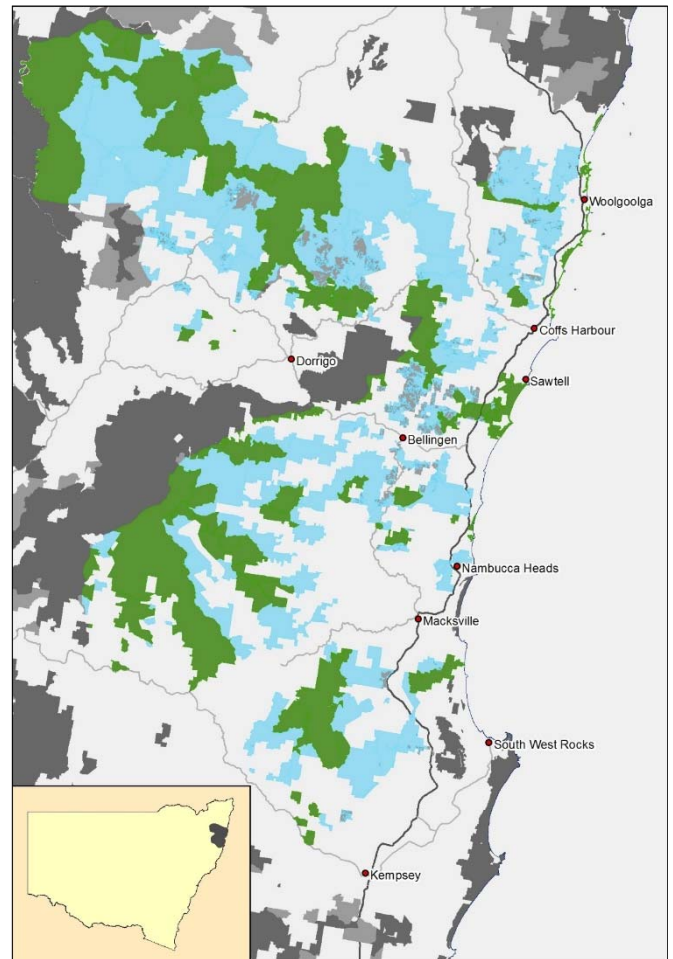


Figure 2: Map of the proposed Great Koala National Park (GKNP) boundaries (green and blue polygons). Green polygons are existing conservation reserves and blue polygons State Forests. Outside the proposed park dark grey polygons are conservation reserves, light grey State Forests and white private land. The total area of the proposed GKNP is 315,000 ha, of which approximately 175,000 ha is currently State Forest and 140,000 ha is conservation estate.

The koala metapopulations within the GKNP proposal, and the regional koala populations identified within them are described below. This information is summarised from Scotts (2013).

### **The Coffs Harbour—Guy Fawkes metapopulation**

The Coffs Harbour—Guy Fawkes metapopulation includes the coastal plains and foothill forests of the Coffs Harbour and Bellingen LGAs extending inland to include the hinterland forests bounded to the north by the non-preferred sandstone-based forests and woodlands and to the south by the clearing



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associated with the Dorrigo plateau and unsuitable rainforest habitats. To the west it is bounded by the by rugged and lower fertility forests and woodlands of the Guy Fawkes valley. This metapopulation is comprised of three regional koala populations. Two of these three regional populations are comprised of two or more subpopulations. This is described below in the text and summarised in Table 1. These populations may further extend into the Guy Fawkes Wilderness Area. The regional populations comprising the Coffs Harbour—Guy Fawkes metapopulation are:

### ***The Coffs Harbour—North Bellinger regional population***

Includes the coastal plains and foothills forests of the Coffs Harbour and north-east Bellingen areas. Regional population boundaries are formed by sandstone-based habitats in the north, rainforest habitats to the southwest and cleared river valleys to the west and south that act as likely barriers to koala movement. This regional population supports the greatest koala numbers (>1000 individuals) and highest population densities in the region. However significant threats exist that are associated with the close proximity of human centres and infrastructure. This is the most important koala regional population on the Mid-North Coast and perhaps one of the most important in the nation.

### ***The Coffs Harbour Hinterland regional population***

This regional population is bounded to the north by non-preferred sandstone-based forests and woodlands, to the south by clearing associated with the eastern Dorrigo Plateau and non-preferred rainforest habitats, to the west by the rugged, steep gorges associated with the Nymboida River and to the east by clearing associated with the Orara Valley. This appears to be a critical koala regional population supporting in the order of 500 – 1000 individuals centred upon hinterland public forests, particularly state forests, but also including important private forests on the eastern Dorrigo Plateau. Some protected koala habitat is found on NPWS reserves.

### ***The Chaelundi—Clouds Creek—West Dorrigo regional population***

This regional population is bounded to south by clearing associated with the eastern Dorrigo Plateau and also non-preferred rainforest habitats, to the east by the rugged, steep gorges associated with the Nymboida River and to the west by rugged and lower fertility forests and woodlands of the Guy Fawkes River valley. To the north of the mapped regional population koala records become scarce (e.g. Marara, Dalmorton State Forests) and habitats may be less suitable. The Boyd River may also present a barrier or, at a minimum, a filter to koala movement.

This appears to be a critical koala regional population supporting in the order of 500 – 1000 individuals. The mapped area includes hinterland, escarpment and gorge public forests and some tracts of private forest west of Dorrigo. Some reasonably extensive potential koala habitats occur on NPWS reserves. Past surveys for koalas in this area have been largely restricted to state forests and koala records are widespread on that tenure. Two subpopulations (Table 3) have been identified within the Chaelundi—Clouds Creek regional population which are considered critically important in the context of long term koala conservation.



Table 1: Regional populations and sub populations that comprise the Coffs Harbour—Guy Fawkes metapopulation. The estimated population size of each subpopulation is included, along with status (stable, S, or declining, D) density (high, H, moderate, M, or low, L) and threat status (high, H, moderate, M, or low, L), an estimate of confidence in the assessment is included as is further information on the nature of the threats.

Regional population	Subpopulation	Subpop size	Status	Density	Threat	Confidence	Threat information and other comments
Coffs Harbour— North Bellinger	Bongil— Pine Creek	Bongil— 500- 1000	S	H	L-M	Well known	Includes Bongil—Pine Creek core; logging, fire, vehicle strike
Coffs Harbour— North Bellinger	North Bellinger— Gleniffer	50-500	D	M	M	Largely unknown	Logging
Coffs Harbour— North Bellinger	Bonville	50-500	D	M	H	Well known	Targeted and increasing urban and rural residential development
Coffs Harbour— North Bellinger	Coffs Harbour— Toormina—Korora	<50	D	M	H	Well known	Habitat fragmentation, dogs, vehicle strike
Coffs Harbour— North Bellinger	Orara West— Boambee	50-500	D	M	M	Well known	Logging, fire
Coffs Harbour— North Bellinger	Coffs northern beaches	<50	D	L	H	Well known	Highway upgrade, urban and rural residential development, dogs
Coffs Harbour— North Bellinger	Lower Bucca— Orara East	<50	D	L	H	Well known	Logging, fire
Coffs Harbour— North Bellinger	Red Rock— Wedding Bells— Conglomerate	<50	D	L	M	Unknown	Logging, fire
Coffs Harbour Hinterland	Coffs Harbour Hinterland	500- 1000	S	M	M	Largely unknown	Predominantly state forest. Can't distinguish subpopulations
Chaelundi— Clouds creek— West Dorrigo	Chaelundi— Clouds Creek	50-500	S	M	M	Largely unknown	Predominantly state forest & National Park
Chaelundi— Clouds creek— West Dorrigo	West Dorrigo	<50	D	L	M	Largely unknown	Fragmented and sparse population

## The Bellinger—Nambucca—Macleay metapopulation

The Bellinger—Nambucca—Macleay metapopulation extends from the southern Bellinger LGA through the Nambucca LGA to the north of the Kempsey LGA and is comprised of a single regional koala population:

### *The South Bellinger—Nambucca—North Macleay regional population*

Northern and southern boundaries of the regional population are formed by geographic barriers associated with the lower reaches of the Bellinger River (north) and Macleay River (south) including extensive clearing and urban and agricultural development. The north-western boundary is mapped but remains ill-defined with little knowledge relating to koala occurrence. Overall the South Bellinger—Nambucca—North Macleay regional koala population remains poorly understood. It may



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be comprised of an extensive, but likely sparse, population with a rough estimate between 130 – 1,550 individuals. The metapopulation is considered nationally important but a targeted program of koala habitat mapping and population characterisation is needed to further inform its relative conservation status. The three koala subpopulations identified within this regional population are shown in Table 2.

Table 2: Sub populations that comprise the South Bellinggen—Nambucca—North Macleay regional population, itself part of the Bellinggen—Nambucca—Macleay metapopulation. The estimated population size of each subpopulation is included, along with status (stable, S, or declining, D) density (high, H, moderate, M, or low, L) and threat status (high, H, moderate, M, or low, L). An estimate of confidence in the assessment is included as is further information on the nature of the threats.

Regional population	Subpopulation	Subpop size	Status	Density	Threat	Confidence	Threat information and other comments
South Bellinggen—Nambucca—North Macleay	Southern Coastal	<50	D	L	H	Largely unknown	Urban and rural-residential development, dogs, road strike
South Bellinggen—Nambucca—North Macleay	Southern Hinterland	50-500	S	L	M	Unknown	Stable but sparse; logging & fire
South Bellinggen—Nambucca—North Macleay	Scotts Head – Ngambaa – Willawarrin	50-500	D	L	M	Largely unknown	Overall declined particularly on private lands; State Forests are potential strongholds but also declined; fire, logging



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## **Appendix 2**

### **State Environment Planning Policy No. 44—Koala Habitat Protection**

#### **Submission to the Explanation of Intended Effect**

#### **Bellingen Environment Centre**

##### **Introduction.**

Bellingen Environment Centre (BEC) has operated as a community conservation organisation within the Bellingen LGA area for over thirty years.

The BEC has observed with concern the decline in Koala populations in the Bellinger Valley and more broadly on the North Coast over the last 30 years. The BEC has support a range of remedial koala conservation programs from land conservation and rehabilitation to animal care activities.

In 2012 the BEC and other local community groups supported an assessment of Koala populations on the Mid North Coast between the Richmond and the Macleay Rivers. From this assessment local groups developed the proposal to create the Great Koala National Park (GKNP) in the Coffs Harbour hinterland. The GKNP has attracted strong support from local and regional communities as well as more broadly.

The BEC also opposes native forest logging on public land and a return to broad-scale land clearing which interact with SEPP 44 and are very relevant to koala conservation. On these issues the BEC works closely with other conservation groups including the North Coast Environment Council, The North East Forest Alliance, the National Parks Association and the Nature Conservation Council and shares information and often adopts common positions and statements with these groups. In this case this submission shares a number of positions with other key groups.

The BEC welcomes the opportunity to comment on the Explanation of Intended Effect State Environment Planning Policy No. 44—Koala Habitat Protection (EIE). The BEC has had recent experience with the preparation of a Comprehensive Koala plan of management for the lowland forests in Bellingen shire. The implementation of the planning process where areas of protection in the draft plan were progressively removed in a number of steps was of major concern. The process set up a virtual blackmail of council to accept a vastly reduce area of protection or get nothing – it was an unedifying process that reflected poorly on the state agencies involved. Not a good promotion for comprehensive koala plans of management.

We hope that DoPE will adopt our recommendations into the SEPP, based strongly on our recent experience as well as our longer participation in koala conservation activities. The BEC believes there have been weaknesses in Koala conservation over many years and there are many areas that could be strengthened and clarified.



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The BEC is concerned the proposed revision of SEPP44 is not accompanied by a published review of the effectiveness of the application of the policy over the last twenty years. Despite DoPE stating that a comprehensive review of SEPP 44 has been undertaken the lack of any published review of SEPP 44 to date limits the extent the NCEC can assess whether the revision will increase its effectiveness.

The BEC is concerned that without seeing the wording of the guidelines we cannot be sure as to the final content and application of the SEPP and therefore as to whether the revision increases its effectiveness or not .

An aim of SEPP 44, to protect koala habitat and to ensure a permanent free-living populations over the present range and reverse the current trend of koala population cannot be achieved without a whole of government, koala population based planning process across all land tenures. The BEC has seen the effect of the comprehensive koala plan of management for the Bellingen Shire where proposed controls on private property are far more restrictive than those on the adjacent state forest .That position with virtually no koala protection measures applied to state forests is not credible

The following comments on the EIE are made in the context that SEPP 44 should be more fully reviewed and incorporated into a whole of Government approach to koala conservation as recently recommended by the Chief Scientist.

## **1.Aim of the SEPP**

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, population based planning process across all land tenures. This has been clearly demonstrated in our recent Bellingen Shire experience.

Without amendment, preparation of CKPoM's the current SEPP 44 applies to koala populations on a selective tenure basis (private land) and in which the koala populations are dissected by artificial (LGA) boundaries.

## **2. Application of the SEPP**

The application of the SEPP should be broadened to include all land tenures. The current restriction of SEPP 44 to private land only can result in more strict land use controls applying to private land than applying to adjoining State Forests. The application of the SEPP should be on the basis of identified Koala population boundaries as against LGA boundaries. This approach allows all parties to understand the ecology of local koalas, their conservation requirements and responses proposed under the SEPP.

**Recommendation:** Ensure that KPOM's are prepared for all land tenures over recognised Koala populations

## **3. Definitions**

By ensuring that all identified tree species are considered habitat, and that non-listed species are deemed habitat if a koala is present the proposed changes to the current koala habitat definitions ('core' and 'potential') have scope to strengthen the SEPP.





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Unfortunately, it is not possible to assess whether these changes to the definition will result in more protection to habitat as the definitions that will identify the plant communities have not been released.

**Recommendation:** ensure that the definition of koala habitat includes all plant communities that have  $\geq 15\%$  of one or more listed tree species in the upper or lower strata of the tree component, as well as all vegetation that contains koalas. On-ground surveys should be used to identify plant communities.

**Recommendation:** ensure that koala habitat currently identified under CKPoMs is not rendered unprotected as a result of the amended definitions.

**Recommendation:** ensure that local government is adequately resourced to incorporate the changes into existing CKPoMs within 12 months of the changes taking effect.

## 4. The development assessment process

The requirement to replace the preparation of individual plans of management for areas not covered by comprehensive plan of management with standardised requirements set out in updated guidelines should not be adopted as it will lead to lowering assessment and protection of Koala habitat.

**Recommendation:** The requirement for a comprehensive plan of management to be retained.

## 5. Guidelines

As with the development assessment process without seeing the guidelines it is difficult to accurately assess how effective the SEPP can be, and the strength of the guidelines will be determined by the language and intent of the SEPP. Key questions that are outstanding are will the guidelines (and the SEPP) be enforceable by the Minister?

**Recommendation:** The guidelines specify that digital aerial photographic interpretation is the only mapping method used in the first instance to identify koala habitat,

**Recommendation:** Require that an on-ground ecological assessment is necessary to confirm koala habitat and determine koala presence or absence.

Paddock trees, including non-feed species, have been shown to be crucial habitat elements for koalas as refuges in times of heat. Failure to ensure the protection of paddock trees will be undermine the aims of the SEPP.

**Recommendation:** ensure that the guidelines on surveys make particular reference to paddock trees and that paddock trees are assessed as to the presence of koalas regardless of whether they are a listed koala tree species.

## 6. Zoning



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Currently, core koala habitat identified under SEPP 44 should be incorporated into an environmental protection zone or have special provision to control development under Clause 15. However this requirement is to be removed and instead put into a Local Planning Direction (LPD) that will direct councils as to how they must protect koala habitat. It is unclear from the Explanation whether the requirements will be the same as at present.

Further, we are concerned both about how koala habitat is to be protected by zoning, and the interaction between the new environmental zoning approach on the north coast and the revised SEPP. The LPD, effective since 14<sup>th</sup> April 2016, 'Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs' has implications for the revised SEPP. This change to zoning meant that land could only be zoned environmental if conservation had been the primary function of that land for the prior two years. For example, any land over which a Private Native Forestry Property Vegetation Plan was granted prior to April 2014 would likely be ineligible for environmental zoning on the grounds that forestry was the primary land use. In northern NSW, this accounts for approximately 390,000ha (see section on PNF). This in effect removed the ability of local government to zone private land into an environmental protection zone—as supposedly required under SEPP 44.

It is unclear how the proposed koala habitat LPD will interact with the LPD on E2 and E3 zones, but there is nothing to suggest that it will replace or have legal authority over the LPD on E2 and E3. If that is the case then the revised SEPP essentially confers little extra protection for koalas as the north coast councils are those with the most extensive koala habitat and largest koala populations. Should the LPD on E2 and E3 zones be extended statewide, then the confounding effect on local governments would also be manifested on koala populations elsewhere.

**Recommendation:** ensure that the new LPD gives local government the authority to effectively zone koala habitat into environmental protection zones, and that the 'Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs' LPD does not negate the revised SEPP.

## **7. List of tree species and local governments**

The BEC strongly supports the amended tree species list. We also support the intent to treat non-listed tree species as koala habitat if a koala is present. The latter is important as koalas are known to use non-feed species for shelter, and large shelter trees are very important as refuges in times of heat stress. For example, koalas are known to use *Eucalyptus pilularis* (Blackbutt), on the north coast. However we note that the changed tree species list, and therefore changed definition to koala habitat, will require local government to revise existing CKPoMs and re-map koala habitat.

**Recommendation:** ensure that local government is resourced to undertake the necessary revised koala habitat mapping.

## **8. Koala habitat and occupancy assessments**

The BEC supports undertaking a habitat suitability and koala occupancy assessment *prior* to a DA being submitted. However, we have concerns about the fate of unoccupied koala habitat: given the huge declines in koala populations throughout NSW, most suitable habitat will be unoccupied. But if we are to have any chance of recovering koala populations (and therefore to meet the aims of the SEPP), it is vital that this unoccupied habitat be protected as if koalas

were present. The Explanation does not clarify what happens if an assessment identifies



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unoccupied koala habitat, but suggests that a DA could still be submitted and that either a CKPoM or the guidelines will determine the local government response.

**Recommendation:** ensure that both the guidelines and CKPoMs are statutory documents that enable local governments to refuse DAs that pose an unacceptable risk to *occupied and unoccupied* koala habitat. We caution against developing guidelines that have a lower standard or which are less enforceable than CKPoMs as this will act as a disincentive to create a CKPoM.