

Koala Code of Practice: Forest Harvesting in New South Wales





Acknowledgments

This publication is an initiative of the NSW Government's Forest Industries Taskforce.

Disclaimers

Legal information contained in this document is provided for general guidance only, and persons should seek proper legal advice prior to establishing a plantation without authorisation, carrying out operations in an unauthorised plantation or undertaking harvesting operations in native forests.

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Objective

To provide information on the legislation in place to ensure that native forest and plantation harvesting in NSW is planned and undertaken in such a way that Koala populations do not decline in areas where timber harvesting occurs, as well as guidance on the application of the relevant legislation. A Koala Field Guide for Forestry Operations supports this document.

Related documents in NSW

- Integrated Forestry Operations Approval (IFOA)
– Threatened Species Licence for public forests
- Timber Harvesting in Forests NSW Plantations
– Code of Practice (2005)
- Private Native Forestry (PNF) Code of Practice (2013)
- State Environmental Planning Policy 44 – Koala Habitat Protection (SEPP 44) (2000)
- NSW Koala Recovery Plan (2008)
- National Koala Conservation and Management Strategy (NRMMC 2009)
- *Plantations and Reafforestation Act 1999* (PRA)
- *Environmental Planning and Assessment Act 1979* (EP&A Act)
- *Native Vegetation Act 2003*
- *Threatened Species Conservation Act 1995* (TSCA)
- *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC)
- *Fisheries Management Act 1994*

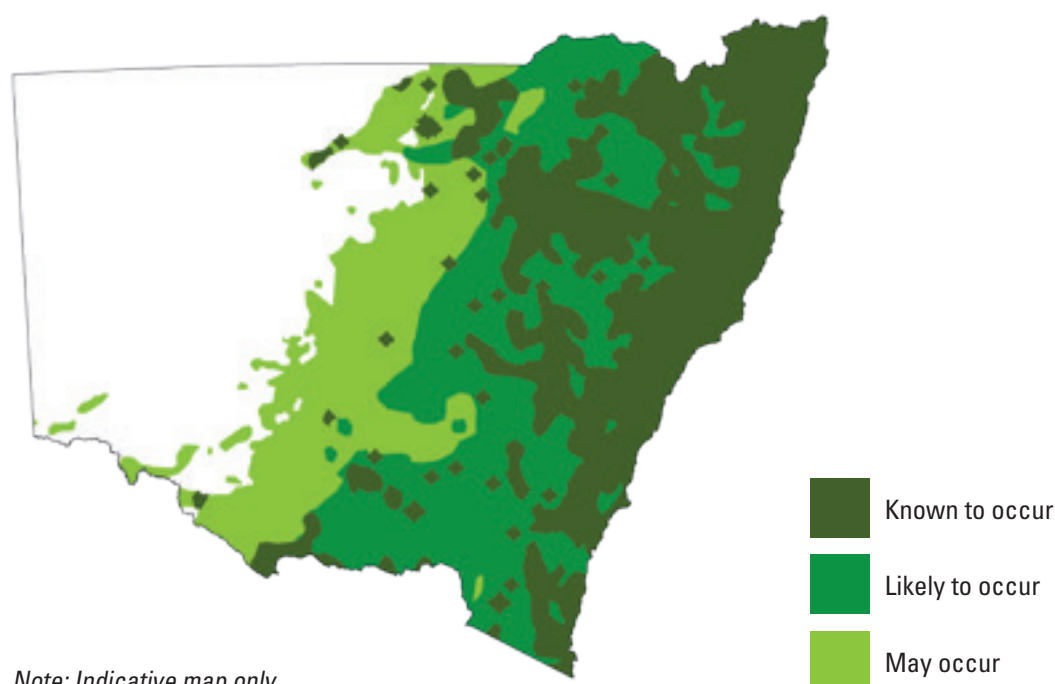
About Koalas

Description

The Koala is an iconic Australian marsupial that lives in the eucalypt forests of eastern Australia. It is arboreal and medium-sized with a stocky body, large rounded ears, sharp claws and variable but predominantly grey-coloured fur. Koala pellets (faecal droppings/scats) are easily identified and are considered one of the better indicators of Koala presence. The breeding season for Koalas runs from about August to February. This is a time of increased activity, and sound levels increase as males bellow more frequently. Young first emerge from the pouch about November and can be seen on the backs of their mothers through summer.

Distribution

The highest Koala densities in NSW occur on the north coast and central coast. In the Lismore area, Koalas may be extending their range into eucalypt forests and woodlands that have become established since clearing of the Big Scrub rainforest. There are also some large populations of the Koala in the Pilliga region and near Gunnedah on the north-western slopes and plains. On the south coast, Koalas occur in low density and isolated populations. Records of Koala occurrence can be sourced from the NSW Wildlife Atlas at www.bionet.nsw.gov.au



Note: Indicative map only

Koala habitat

The Koala is a leaf-eating specialist and its habitat comprises any forest or woodland containing species that are known Koala food trees. However, Koalas have a complex form of habitat selection that requires them to balance nutrient and water intake against toxins in the leaves, all of which can change with soil type. Certain eucalypt species are preferred for feeding, and these vary by region, while other trees are used for shelter during the day, especially in hot weather. See Appendix A for a list of preferred browse species by region.

Conservation status

At a national level, populations of the Koala in Queensland, NSW and the Australian Capital Territory are listed as *Vulnerable* under the *Environment Protection and Biodiversity Conservation Act 1999*. In NSW, the Koala is also listed as *Vulnerable* under the *NSW Threatened Species Conservation Act (1995)*.

Threats

Koalas experience a range of threats with the most significant including permanent loss of tree cover, increased urbanisation, increased road traffic, dog predation, prolonged drought and diseases. These threats, along with timber harvesting, can interact to create stress on Koalas. For instance, drought and fire

can make Koalas more susceptible to disease, while those residing in forests adjoining urban areas are also likely to be under increased pressure.

Koala management

A range of prescriptions is employed in NSW forests to minimise the effects of harvesting on the environment as specified by legislation, which varies according to land tenure. Prescriptions exclude harvesting from sensitive areas such as along streams and in areas of high conservation value old growth, rainforest, rare forest types and wetlands. While this provides undisturbed habitat for a range of species across the landscape, it is recognised that Koalas (and other vulnerable and threatened species) require specific prescriptions to maintain key elements of their habitat.

The prescriptions that provide additional protection for Koalas in native forests are outlined in Appendix B and include the identification and protection of specified levels of preferred browse species where there is a known record or site evidence of Koalas.

In plantations, harvesting is also excluded along streams and from native forest remnants embedded within the plantation. Koala surveys are not required in plantations of non-preferred tree species. An ongoing research project is investigating Koala use of plantations of non-preferred tree species (such as Blackbutt) in northern NSW.

Forestry – case study

The effect of timber harvesting on local Koala numbers varies according to harvesting practices, and can be mitigated through adherence to prescriptions designed to protect habitat and Koala food trees. Koalas inhabit many commercial forest types throughout NSW, especially in selectively logged forests in the north. In north-western NSW, Koalas have been shown to tolerate a degree of habitat alteration caused by selective logging of cypress trees, an important day-time shelter tree.

A major study in Pine Creek State Forest, near Coffs Harbour, found that Koalas preferred uneven-age forest, especially areas where there were many different species of trees. Koalas were mostly observed in medium-sized trees (30-50 centimetres in diameter). The most important tree species to Koalas in this study were Tallowwood, Sydney Blue Gum, Grey Gum and Forest Oak. However, Koalas were also regularly found in Blackbutt and Flooded Gum during the day and often in plantation areas. From a Koala habitat perspective this study identified that the presence of multiple Koala browse species, from a range of age-classes, was the best indicator of Koala habitat quality.

Other studies have documented Koalas using particular eucalypt plantations in NSW.

In the Dorrigo State Forests more than 30 per cent of Koala sightings were in hardwood plantations (predominately Flooded Gum) and considerable numbers were also found in rainforest adjoining younger Flooded Gum plantations. On the Liverpool Plains of north-west NSW, four to seven-year-old plantations of River Red Gums (a known Koala browse species) were preferentially used and Koalas crossed farmed paddocks to use such areas. However, current research on wildlife in commercial eucalypt plantations (non-browse species) established on farmland on the north coast of NSW have found little use by Koalas in plantations that are less than 11 years of age.

Legislation and codes

Environmental Planning & Assessment Act (EP&A Act)

Land-use planning and development in NSW is governed by the *Environmental Planning and Assessment Act 1979* (EP&A Act).

However, the requirements of this Act for forestry purposes have mostly been captured in newer legislation or approval processes. The EP&A Act does not apply to:

- forestry operations approved under an Integrated Forestry Operations Approval (IFOA)
- private native forestry undertaken in accordance with the Private Native Forestry (PNF) Code
- forestry operations on plantations authorised under the *Plantations and Reafforestation Act 1999* (PRA) (which includes plantations accredited under the preceding *Timber Plantations Harvesting Guarantee Act*). Note that all plantations are required to be authorised prior to commencement of any operations in excess of 30 hectares, except for those established under the preceding EP&A process. Management of those plantations must continue to meet the original approval requirements, unless action is taken to have them authorised under the PRA.
- 'exempt farm forestry' as described in the PRA. Forestry operations may be classed as 'exempt farm forestry' providing they do not exceed 30 hectares at any one time and any clearing of native vegetation is exempt from requirements for a development consent or property vegetation plan.

State Environmental Planning Policy (SEPP)44

State Environmental Planning Policy (SEPP)44 is a planning instrument established under the EP&A Act. It provides a state-wide approach to enabling appropriate development to continue, while ensuring there is ongoing protection of Koalas and their habitat. It encourages the conservation and management of natural vegetation areas that provide habitat for Koalas to ensure permanent free-living populations will be maintained over their present range.

SEPP 44 applies only to developments requiring consent by local government. It has limited relevance to forestry operations because:

- it does not apply to land dedicated as State forest or flora reserve, or to areas covered by an IFOA

- it does not apply to plantations authorised under PRA, or 'exempt farm forestry' as defined in that Act (as both are exempt from the EP&A Act)
- under the PNF Code of Practice, forest operations are not permitted within any area identified as core koala habitat under SEPP 44.

However, plantations that were established under the EP&A Act prior to enactment of the PRA are captured by SEPP 44, unless they have since been authorised under the PRA. For these areas, local councils cannot provide development consent for forestry operations without first determining whether an area contains *potential Koala habitat*. This is defined as 'areas of native vegetation where the trees listed in Schedule 2 of SEPP 44 constitute at least 15 per cent of the total number of trees in the upper and lower strata of the tree component'.

Table 1: List of SEPP 44 – Schedule 2 preferred Koala feed trees

Scientific Name	Common Name
<i>Eucalyptus albens</i>	White Box
<i>Eucalyptus camaldulensis</i>	River Red Gum
<i>Eucalyptus haemastoma</i>	Broad-leaved Scribbly Gum
<i>Eucalyptus microcorys</i>	Tallowwood
<i>Eucalyptus populnea</i>	Bimble Box or Poplar Box
<i>Eucalyptus punctata</i>	Grey Gum
<i>Eucalyptus robusta</i>	Swamp Mahogany
<i>Eucalyptus signata</i>	Scribbly Gum
<i>Eucalyptus tereticornis</i>	Forest Red Gum
<i>Eucalyptus viminalis</i>	Ribbon or Manna Gum

Where potential Koala habitat is identified, councils must then determine whether core Koala habitat exists. This is defined as 'an area of land with a resident population of Koalas, evidenced by attributes such as breeding females (females with young) and recent sightings of and historical records of a population'. If core Koala habitat is identified, a council must not provide development consent unless an approved plan of management, prepared in accordance with the SEPP, is in place.

The Private Native Forestry (PNF) Code of Practice

Forestry operations on private or leasehold land (other than crown-timber leases, which are authorised under IFOAs) require authorisation under a PNF Property

Vegetation Plan (PVP). This is a legally binding agreement that requires the forests identified in the PVP to be managed in accordance with the relevant PNF code of practice. Approval to conduct forestry operations under a PNF PVP can be granted for up to 15 years.

Specific PNF codes of practice have been developed and introduced for four regions of NSW. The codes set minimum operating standards for harvesting and establish a regulatory framework for the sustainable management of private forests by ensuring that operations improve or maintain environmental outcomes. Under the codes, forest operations are not permitted within any area identified as core Koala habitat, within the meaning of SEPP 44. *Additional prescriptions apply for the protection of Koalas, as detailed in Appendix B.*

Integrated Forestry Operations Approval (IFOA) – Threatened Species Licence for public forests

Regionally-based IFOAs specify the minimum measures that must be applied to protect threatened species and their habitat from activities associated with timber harvesting across the public forest estate of NSW.

Major environmental features protected from harvesting include rainforest, high conservation value old growth forest, habitat trees and riparian habitats. Protection of these broad areas is supplemented with species-specific measures that identify key aspects of habitat that are important for different species. Pre-harvest surveys are undertaken for particular threatened species to guide the identification of key habitat and the subsequent establishment of protection measures. *This process is outlined in each region's IFOA Details regarding the protection of Koalas under an IFOA are provided in Appendix B.*

Plantation and Reafforestation Act

Within NSW, plantations are managed under four categories:

- plantations approved under the PRA from December 2001 onwards
- plantations accredited under the *Timber Plantations (Harvest Guarantee) Act 1995* (TPHGA) between July 1997 and December 2001, which are now deemed to be authorised under the PRA
- existing plantations that predate the PRA and the TPHGA and have not been authorised under either legislation (where these have been established under the EP&A Act, they must be authorised under the PRA before they are replanted, otherwise authorisation is required before forestry operations are carried out over an area larger than 30 hectares)

- smaller plantations of 30 hectares or less, classed as exempt farm forestry, that do not need to be authorised under the PRA, provided any clearing of native vegetation is exempt from approval requirements under the *Native Vegetation Act 2003*.

An application can be made by the plantation owner to authorise any plantation, regardless of whether authorisation is required by the PRA. A plantation established (or to be established) in accordance with the Code, and which does not require a Species Impact Statement due to potential impacts on threatened species, will usually be considered a *complying plantation* and assessed under S13 of the PRA. In these situations all future operations on the plantation must comply with the Plantations and Reafforestation (Code) Regulation 2001 (PR Code) and no additional conditions regarding wildlife management will be applied.

Non-complying plantations (plus some complying plantations in special circumstances) are assessed for authorisation under S14 of the PRA. In these situations the provisions of any instruments under the Environmental Planning and Assessment Act may be applied, which may include Koala prescriptions. An existing plantation containing Koalas would be captured as a non-complying plantation due to the fact that a Species Impact Statement would be required in relation to proposed harvesting operations.

The PRA provides protection for Unique and Special Wildlife Values (USWV) on authorised plantations (S32). USWV are defined as any endangered species, Endangered Ecological Communities (EECs) or species presumed extinct in line with the *NSW Threatened Species Conservation Act 1995* (TSCA). If any of these are present, a report is prepared to evaluate the impact of harvesting on the USWV. If areas may not be harvested due to the presence of USWV, financial compensation is payable to the owner or manager. The Koala is listed under the NSW TSCA as vulnerable (not endangered), with the exception of two endangered populations in the Pittwater Local Government Area and the Hawks Nest / Tea Gardens area. The PRA applies to plantation establishment on cleared land and includes controls on the retention of existing native vegetation.

The PRA does not require an assessment of the impact of harvesting on Koalas in authorised plantations. However, the Department of Primary Industries works with plantation owners to reduce any adverse impacts.

Note that unauthorised plantations, including exempt farm forestry, are subject to the requirements of the TSCA.

Environmental Protection and Biodiversity Conservation Act 1999 (EPBC)

Draft Koala Referral Guidelines have been prepared under this federal legislation that apply anywhere the Koala, or Koala habitat, occurs in Queensland, NSW and the ACT. If an action is proposed that has, will have, or is likely to have a significant impact on the Koala, the proponent must refer the proposed action to the Federal Minister for assessment and approval prior to commencing the action.

Certain actions are exempt from the requirement for assessment and approval under the EPBC Act. These include lawful continuations of land use that started before 16 July 2000 (providing there is no enlargement, intensification or expansion of activities) or actions that were legally authorised before 16 July 2000.

Part 3 of the EPBC Act – “Environmental Approvals” – does not apply to forestry operations undertaken in accordance with a Regional Forest Agreement (RFA), unless the operation is being undertaken in a property on the World Heritage List, in a Ramsar wetland, or is incidental to another action whose primary purpose does not relate to forestry. Therefore, with these exceptions, all forestry operations (both Crown and freehold, and including plantations) in RFA areas are exempt from the EPBC Act.

All other forestry operations in NSW are subject to the EPBC Act, with federal approval required for any operation that potentially impacts on koala populations.

The EPBC Act provides for bilateral agreements to be developed between the Commonwealth and State governments. This allows for:

- a State assessment process to be accredited, so that the Federal Government can determine an application for EPBC Act approval on the basis of that process (assessment bilateral agreements)
- a State assessment and approval process to be accredited, so that State approval for a project removes the need for an EPBC Act approval for that project (approval bilateral agreements).

NSW currently has an assessment bilateral agreement, but does not have an approval bilateral agreement (although notice has been given of an intention to develop one).

The existing assessment bilateral agreement process does not remove the need for a project to be assessed under the EPBC Act. However, it does allow the Commonwealth to rely on certain NSW processes in making an assessment under the EPBC Act, rather than

the procedures outlined in that Act. This would apply where assessment has been in accordance with either:

- Parts 3A, 4 or 5 of the EP&A Act
- where the listed threatened species and communities provisions under the EPBC Act give rise to the “action” being a “controlled action”, as defined in Part 6 of the TSCA or Part 7A of the *Fisheries Management Act 1994* (Fisheries Act) (including a species impact statement in both cases).

Forestry operations authorised under the PRA or PNF PVP are exempt from (and therefore unlikely to have been assessed under) NSW planning and assessment legislation. Therefore it is likely that an environmental assessment would need to be undertaken in order for an operation to be considered for approval under the EPBC Act.

Koala Field Guide for Forestry Operations

A field guide accompanies this Code of Practice to provide practical advice and guidance to forestry operators. The Field Guide summarises the legislative environment and outlines key management steps for Koalas as well as providing practical guidance through an emergency response plan, checklist and linkages to Koala care groups.

Training and education

Where possible, field staff should attend a private wildlife school that provides training on Koala ecology, habitat requirements, identification of preferred food trees and survey methods. These schools should provide regionally-specific information.

Koala Emergency Rescue Plan

A local Koala care group should be immediately contacted in the following circumstances:

- If a sick or injured Koala is observed at any time in the forest
- If a joey is found separated from its mother. In this instance, all vehicle and machinery movement should cease. These Koalas may need to be admitted into care for assessment and observation as it can be common for a female Koala to reject its joey after such an event.
- If a Koala suffers fatal injuries, a Koala care group should be contacted so it can be taken to a veterinary hospital for a post mortem examination.

Injured and ill Koalas should be contained on the ground until a Koala care group arrives. Training is available for forest operators, supervisors and contractors in handling Koalas.

A blanket may be placed over a Koala on the ground to attempt to contain them. Holding containers should allow easy access to get the Koala in and out, have enough space so the Koala can sit up, provide adequate ventilation and be covered with a blanket. Examples include:

- two plastic oval washing baskets tied together with cable ties on one side to make a lid
- a tall plastic cylindrical washing basket
- specially made cages – larger than standard cat cages
- a plastic garbage bin with a hole cut in the top and holes drilled 15–20 centimetres above the base.

A bag should not be used to contain the animal. The container should be lined with towels on the bottom and a large towel rolled up into a cylinder placed in the

container for the koala to hold onto as it would a tree. Putting gum leaves in the container will help relieve stress. The area should be kept quiet to reduce stress and shade should be provided.

A Koala care group can arrange transportation to a veterinary hospital.

Forestry Operators Field Checklist

Forest operators, supervisors and contractors should complete the checklist below before beginning an operation:

- Are you familiar with the Koala Code of Practice for Forests and relevant legislation
- Have you identified priority forest types for Koalas
- Have you identified primary browse species for your region as listed in the Koala Code of Practice
- Have you talked to local Koala care groups and neighbours about Koala sightings and usage patterns in the surrounding area
- Have you marked out areas of Koala exclusion
- Have you checked for Koalas and their signs (pellets) ahead of harvesting
- Have you undertaken a final check of trees for Koalas prior to harvesting

If a Koala is sighted during operations, the tree is not to be felled or damaged while the Koala is known to be in the tree. The local Koala care group should be contacted for assistance.

If you discover an injured or ill Koala, follow the Koala Emergency Response Plan

Remember to help build on our knowledge of koalas by reporting sightings of koalas to the NSW Wildlife Atlas or the Great Koala Count.

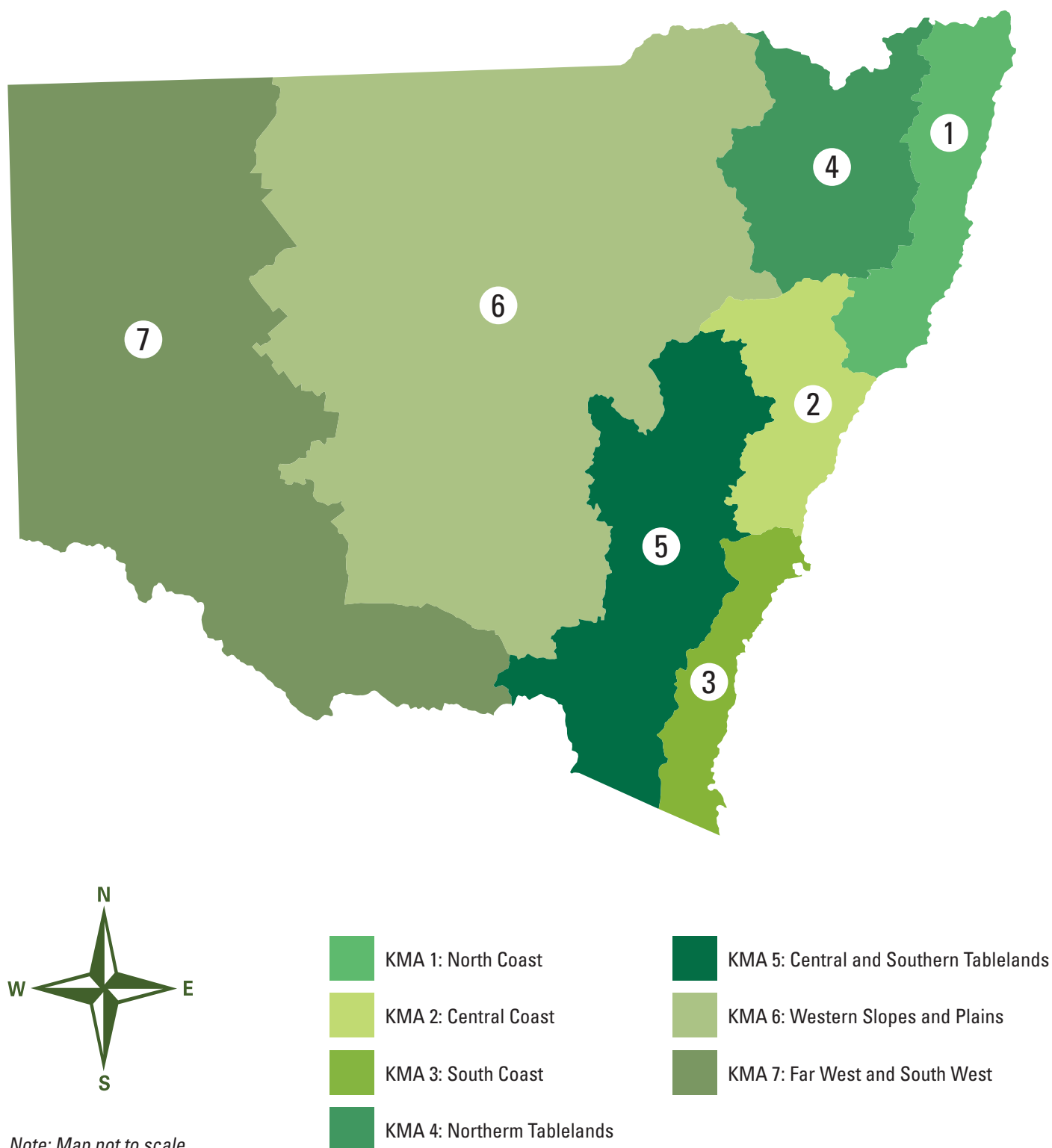
Koala Care Groups

Consultation on this Code of Practice and the Field Guide was undertaken with a number of Koala Care Groups. Contact details for many Koala care groups are included in the Field Guide. Electronic versions of the Field Guide will be updated as these details change.

Copies of the Koala Field Guide are available from the following organisations:

- NSW Department of Primary Industries
– www.dpi.nsw.gov.au
- Timber NSW – www.timbernsw.com.au
- Forestry Corporation of NSW
– www.forestrycorporation.com.au

Appendix A: Koala Management Areas and Primary and secondary Koala browse species by region (Source: Recovery plan for the koala *Phascolarctos cinereus* 2008)



Koala Management Area 1: North Coast

Primary food tree species:

Common Name	Scientific Name
Tallowwood	<i>Eucalyptus microcorys</i>
Parramatta red gum	<i>E. parramattensis</i>
Forest red gum	<i>E. tereticornis</i>
Orange gum	<i>E. bancroftii</i>
Swamp mahogany	<i>E. robusta</i>
Cabbage gum	<i>E. amplifolia</i>

Secondary food tree species:

Common Name	Scientific Name
Narrow-leaved red gum	<i>E. seeana</i>
Craven grey box	<i>E. largeana</i>
Slaty red gum	<i>E. glaucina</i>
Grey gum	<i>E. biturbinata</i>
Small-fruited grey gum	<i>E. propinqua</i>
Large-fruited grey gum	<i>E. canaliculata</i>
Red mahogany	<i>E. resinifera</i>
Steel box	<i>E. rummeryi</i>
Mountain mahogany	<i>E. notabilis</i>
Rudder's box	<i>E. rudderi</i>
Grey box	<i>E. moluccana</i>
White-topped box	<i>E. quadrangulata</i>
Yellow box	<i>E. melliodora</i>

Stringybarks/supplementary species:

Common Name	Scientific Name
Stringybark	<i>E. tindaliae</i>
Blue-leaved stringybark	<i>E. agglomerata</i>
Thin-leaved stringybark	<i>E. Eugeniodes</i>
Diehard stringybark	<i>E. cameronii</i>
White stringybark	<i>E. globoidea</i>

Koala Management Area 2: Central Coast

Primary food tree species:

Common Name	Scientific Name
Parramatta red gum	<i>E. parramattensis</i>
Swamp mahogany	<i>E. robusta</i>
Forest red gum	<i>E. tereticornis</i>
Tallowwood	<i>E. microcorys</i>
Ribbon gum	<i>E. viminalis</i>
Cabbage gum	<i>E. amplifolia</i>

Secondary Food Tree Species:

Common Name	Scientific Name
Broad-leaved sally	<i>E. camphora</i>
Swamp gum	<i>E. ovata</i>
Fuzzy box	<i>E. conica</i>
Brittle gum	<i>E. praecox</i>
Yertchuk	<i>E. consideniana</i>
White-topped box	<i>E. quadrangulata</i>
Dwyer's red gum	<i>E. dwyeri</i>
Red mahogany	<i>E. resinifera</i>
Slaty red gum	<i>E. glaucina</i>
Rudder's box	<i>E. rudderi</i>
Bundy	<i>E. goniocalyx</i>
Large-fruited red mahogany	<i>E. scias</i>
Craven grey box	<i>E. largeana</i>
Grey gum	<i>E. punctata</i>
Maiden's gum	<i>E. maidenii</i>
Monkey gum	<i>E. cypellocarpa</i>
Brittle gum	<i>E. michaeliana</i>
Woollybutt	<i>E. longifolia</i>
Western grey box	<i>E. macrocarpa</i>
Blue box	<i>E. baueriana</i>
Grey box	<i>E. moluccana</i>
Coast grey box	<i>E. bosistoana</i>
	<i>E. notabilis</i>

Stringybarks/supplementary species:

Common Name	Scientific Name
Blue-leaved stringybark	<i>E. agglomerate</i>
	<i>E. oblonga</i>
Thin-leaved stringybark	<i>E. Eugenioides</i>
	<i>E. ralla</i>
White stringybark	<i>E. globoidea</i>
	<i>E. tenella</i>
Yellow stringybark	<i>E. muelleriana</i>
Privet-leaved stringybark	<i>E. ligustrina</i>
Red stringybark	<i>E. cannonii</i>
Brown stringybark	<i>E. capitellata</i>
	<i>E. prominula</i>
Heart-leaved stringybark	<i>E. camfieldii</i>
Narrow-leaved stringybark	<i>E. sparsifolia</i>
	<i>E. bensonii</i>
	<i>E. imitans</i>
	<i>E. blaxlandii</i>

Koala Management Area 3: South Coast

Primary food tree species:

Common Name	Scientific Name
Cabbage gum	<i>E. amplifolia</i>
Forest red gum	<i>E. tereticornis</i>
Ribbon gum	<i>E. viminalis</i>

Secondary food tree species:

Common Name	Scientific Name
Yellow box	<i>E. melliodora</i>
Woollybutt	<i>E. longifolia</i>
Brittle gum	<i>E. mannifera</i>
Maiden's gum	<i>E. maidenii</i>
Yertchuk	<i>E. consideniana</i>
Snow gum	<i>E. pauciflora</i>
Swamp gum	<i>E. ovata</i>
Red box	<i>E. polyanthemus</i>
Large-fruited red mahogany	<i>E. scias</i>
Coast grey box	<i>E. bosistoana</i>
Apple-topped box	<i>E. bridgesiana</i>
Blue box	<i>E. baueriana</i>
Monkey gum	<i>E. cypellocarpa</i>
Bastard Eurabbie	<i>E. pseudoglobulus</i>

Stringybarks/supplementary species:

Common Name	Scientific Name
White stringybark	<i>E. globoidea</i>
Brown stringybark	<i>E. capitellata</i>
Yellow stringybark	<i>E. muelleriana</i>
Southern white stringybark	<i>E. yangoura</i>
Blue-leaved stringybark	<i>E. agglomerate</i>
	<i>E. baxteri</i>

Koala Management Area 4: Northern Tablelands

Primary food tree species:

Common Name	Scientific Name
Ribbon gum	<i>E. viminalis</i>
Cabbage gum	<i>E. amplifolia</i>
Forest red gum	<i>E. tereticornis</i>

Secondary food tree species:

Common Name	Scientific Name
Forest ribbon gum	<i>E. nobilis</i>
Large-flowered bundy	<i>E. nortonii</i>
Candlebark	<i>E. rubida</i>
Mountain mahogany	<i>E. notabilis</i>
Eurabbie	<i>E. bicostata</i>
New England peppermint	<i>E. nova-anglica</i>
Yellow box	<i>E. melliodora</i>
Snow gum	<i>E. pauciflora</i>
Monkey gum	<i>E. cypellocarpa</i>
Broad-leaved sally	<i>E. camphora</i>
Fuzzy box	<i>E. conica</i>
Bundy	<i>E. goniocalyx</i>
White box	<i>E. albens</i>
Apple-topped box	<i>E. bridgesiana</i>
Red box	<i>E. polyanthemus</i>
Wattle-leaved peppermint	<i>E. acaciiformis</i>
	<i>E. interstans</i>
Tenterfield woollybutt	<i>E. banksii</i>
Moonbi apple box	<i>E. malacoxylon</i>
Dwyer's red gum	<i>E. dwyeri</i>
Brittle gum	<i>E. michaeliana</i>
Blakely's red gum	<i>E. blakelyi</i>
Brittle gum	<i>E. praecox</i>
Mountain gum	<i>E. dalrympleana</i>
Orange gum	<i>E. prava</i>
Tumbledown gum	<i>E. dealbata</i>
White-topped box	<i>E. quadrangulata</i>
Brittle gum	<i>E. mannifera</i>
Grey box	<i>E. moluccana</i>
	<i>E. retinens</i>

Common Name	Scientific Name
Narrow-leaved black peppermint	<i>E. nicholii</i>
	<i>E. volcanica</i>

Stringybarks/supplementary species:

Common Name	Scientific Name
Silver-topped stringybark	<i>E. laevopinea</i>
	<i>E. subtilior</i>
Yellow stringybark	<i>E. muelleriana</i>
Diehard stringybark	<i>E. cameronii</i>
Red stringybark	<i>E. macrorhyncha</i>
	<i>E. conjuncta</i>
Youman's stringybark	<i>E. youmanii</i>
McKie's stringybark	<i>E. mckieana</i>
E. stannicola	
Privet-leaved stringybark	<i>E. ligustrina</i>
	<i>E. williamsiana</i>
Broad-leaved stringybark	<i>E. caliginosa</i>

Koala Management Area 5: Central and Southern Tablelands

Primary food tree species:

Common Name	Scientific Name
Ribbon gum	<i>E. viminalis</i>
River red gum	<i>E. camaldulensis</i>

Secondary food tree species:

Common Name	Scientific Name
Candlebark	<i>E. rubida</i>
White box	<i>E. albens</i>
Eurabbie	<i>E. bicostata</i>
Yellow box	<i>E. melliodora</i>
Broad-leaved sally	<i>E. camphora</i>
Western grey box	<i>E. microcarpa</i>
Argyle apple	<i>E. cinerea</i>
Red box	<i>E. polyanthemos</i>
Maiden's gum	<i>E. maidenii</i>
Large-flowered bundy	<i>E. nortonii</i>
Swamp gum	<i>E. ovate</i>
Snow gum	<i>E. pauciflora</i>
Bundy	<i>E. goniocalyx</i>
Tumbledown gum	<i>E. dealbata</i>
Blakely's red gum	<i>E. blakelyi</i>
Brittle gum	<i>E. mannifera</i>
Apple-topped box	<i>E. bridgesiana</i>
Mountain gum	<i>E. dalrympleana</i>

Stringybarks/supplementary species:

Common Name	Scientific Name
Red stringybark	<i>E. macrorhyncha</i>
Yellow stringybark	<i>E. muelleriana</i>

Koala Management Area 6: Western Slopes and Plains

Primary food tree species:

Common Name	Scientific Name
River red gum	<i>E. camaldulensis</i>
Coolabah	<i>E. coolabah</i>

Secondary food tree species:

Common Name	Scientific Name
Dirty gum	<i>E. chloroclada</i>
Blakely's red gum	<i>E. blakelyi</i>
Bimble box	<i>E. populnea</i>
Apple-topped box	<i>E. bridgesiana</i>
Pilliga box	<i>E. pilligaensis</i>
Black box	<i>E. largiflorens</i>
Fuzzy box	<i>E. conica</i>
Mallee red gum	<i>E. nandewarica</i>
Western grey box	<i>E. macrocarpa</i>
	<i>E. vicina</i>
Yellow box	<i>E. melliodora</i>
	<i>E. volcanica</i>
White box	<i>E. albens</i>
Red box	<i>E. polyanthemos</i>
Dwyer's red gum	<i>E. dwyeri</i>
Orange gum	<i>E. prava</i>
Tumbledown gum	<i>E. dealbata</i>

Stringybarks/supplementary species:

Common Name	Scientific Name
Red stringybark	<i>E. macrorhyncha</i>
Narrow-leaved stringybark	<i>E. sparsifolia</i>

Koala Management Area 7: Far West and South West

Primary food tree species:

Common Name	Scientific Name
River red gum	<i>E. camaldulensis</i>
Coolabah	<i>E. coolabah</i>

Secondary food tree species:

Common Name	Scientific Name
Bimble box	<i>E. populnea</i>

Common Name	Scientific Name
Tumbledown gum	<i>E. dealbata</i>
Western grey box	<i>E. macrocarpa</i>
Blakeley's red gum	<i>E. blakelyi</i>
Yellow box	<i>E. melliodora</i>
Black box	<i>E. largiflorens</i>

Stringybarks/supplementary species:

Common Name	Scientific Name
Red stringybark	<i>E. macrorhyncha</i>

Appendix B: Legislative prescriptions

The Private Native Forest Code of Practice

A specific prescription is included in the 'Listed Species Ecological Prescriptions' attached to the regulation, which requires that additional primary and secondary Koala feed trees be protected in harvest areas where Koala records or signs of Koalas (i.e. pellets) are present.

- Private forestry priorities for the Koala are:
- Maintain a viable mix of Koala browse species on forested private land;
- Maintain trees of sufficient size;
- Maintain habitat connectivity between forested private land and adjacent forested areas; and

Rehabilitate degraded areas.

- *Planning/harvesting*
- Forest operations are not permitted within any area identified as core Koala habitat within the meaning of State Environmental Planning Policy 44 – Koala Habitat Protection (SEPP 44)
- Trees containing Koalas or evidence of high use (20 or more Koala pellets beneath the tree) must be retained, along with a 20-metre buffer around the tree

Additional requirements for retaining primary and secondary feed trees apply where there is a record of a Koala within an area of forest operations (or within 500 metres of forest operations) or a Koala scat is found underneath a primary or secondary feed tree.

These measures, 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

(www.bionet.nsw.gov.au) or the identification of the presence of Koalas (or evidence of their presence) by the landholder and/or a harvesting operator. The PNF Code of Practice does not require pre-harvest surveys for Koalas or any other species.

For further information visit
www.environment.nsw.gov.au/pnf/index.htm

Integrated Forestry Operations Approval (IFOA)

Planning

At the beginning of the harvest planning process, locally compiled records will be consulted to determine if there is a reliable record of a Koala. If a record exists, or consideration of historical and local knowledge (including suitability of habitat) indicates that Koalas are likely to occur, a methodical survey for Koala or signs of Koala presence will be undertaken during inspections of the proposed harvest area prior to compiling the harvesting plan. Community dialogue about Koalas should be initiated and maintained at an early stage to ensure exchange of information with neighbours, and local animal welfare and conservation groups. Many interest groups, and the general public, have knowledge of Koala populations in their area. In some situations, animal care groups may be notified in case of accidental injury to a Koala.

The first step in planning the Koala survey is to review a forest type map (where available) and other habitat assessments of the harvest area to:

- to determine and document which forest types to select as priorities for sampling, and

- ii. to decide which forest types may carry these species, or are used locally by Koalas. Reserves, exclusions and retention rates for Koala use areas will be planned and designed according to “Koala Prescriptions”.

Koala mark-up searches and prescriptions

Koala prescriptions vary among regional IFOAs due to varying importance of different forest types to Koalas in different regions (see Appendix A for regional lists of preferred browse species). These prescriptions only apply to native forest areas and for eucalypt plantations on State forest lands. Details of survey requirements and methods and associated prescriptions (protective measures) can be found at [IFOA link here](#)

The following must apply wherever Koala mark-up searches have identified Koala high use areas or Koala intermediate use areas:

1. Specified forestry activities are prohibited within all Koala high use areas. A 20 metre wide exclusion zone must be implemented around the boundary of Koala high use areas
2. In Koala intermediate use areas, ten primary browse trees must be retained per two hectares of net harvest area where available. These trees must be marked for retention. Within intermediate use compartments, Australian Group Selection silvicultural techniques are prohibited in preferred forest types
3. A tree that is accidentally felled into an exclusion zone may be removed from the zone, but only if it contains a timber log
4. A tree that is felled into an exclusion zone under condition (b), or accidentally, may be removed only in accordance with the following rules:
 - i. the crown must be cut off from the trunk and left where it has fallen, except where the whole of the tree (including the crown) is lifted out of the zone using a mechanical harvester
 - ii. in removing the tree (or any logs into which it is cut), any disturbance to the ground and soil must be minimised as far as practicable.

Operations

Compartment marking

Exclusion zones will be marked to clearly exclude harvesting from those areas of compartments with positive Koala records and where survey results show high use. If Koalas are encountered during this phase of operations the relevant IFOA prescriptions will be followed.

During tree marking, primary browse trees should be briefly scanned for Koalas and Koala pellets.

Harvesting

Individual Koalas will be protected from tree felling operations wherever detected. A tree containing a Koala will not be felled or damaged while the Koala is known to be in the tree. Detection of a Koala will trigger surveys as defined in the relevant code (such as the IFOA). Harvesting will be subsequently excluded from within 50 metres of a high use area, or modified within intermediate use areas.

In order to ensure the safety of Koalas utilising habitat or browse trees within harvest areas, the area should be checked for the presence of Koalas the morning of harvesting commencing. Furthermore it should be recognised that noise and vibrations from harvesting machinery and truck movements may disturb Koalas and cause disorientation, which may result in Koalas moving into harvest zones at any time.

Continued dialogue with contractors is needed to ensure knowledge is compatible with compliance with this prescription on all compartments. Contractors and supervisors should include a last minute check before the tree is harvested.

- If a Koala is observed during marking or logging (in an area that has not previously been found to be a high use area), numerous dung pellets (more than twenty below a tree) are found the following procedure will be followed (see also Koala Emergency Response Plan):
- Koala survey required
- Any high use area boundary found will be checked by inspection around the perimeter defined by survey

All tree felling will immediately and subsequently be excluded from within 20 metres of a high use area, or modified within intermediate use areas.

Post-harvest burning

As far as practicable post harvest fire is to be kept out of the area reserved from harvesting for the protection of Koala habitat.

Appendix C : template / sample of Koala Protocol



KOALAS IN CARE Inc.

Servicing Greater Taree, Great Lakes and Gloucester Areas

PO BOX 1249 TAREE NSW 2430
ph/fax: 02 6552 2183
mobile: 0439 406 770
email: koalasinc@bigpond.net.au
web: www.koalasincare.org.au
ABN 78 337 974 646

KOALA PROTOCOL – FORESTRY CORPORATION NSW HARVESTING ACTIVITIES

Compartments 17, 18, 19, & 20 Kiwarrak State Forest – Taree South

BACKGROUND

KOALAS IN CARE INC (KIC) has recently attended a site meeting/dialogue with Forestry Corporation NSW personnel, during which it has been highlighted that copious data is held of koala presence across the above area. This data consists of males/females/females with joeys/juveniles across a wide range and includes permanently identified koalas released that have been encountered from the adjacent areas.

CRITICAL ISSUE ARISING

In order to ensure the safety of koalas utilising habitat/browse trees within harvest areas, the area should be checked for the presence of koalas the morning of harvesting commencing. Furthermore it should be recognised that noise/vibrations from harvesting machinery and truck movements may disturb koalas and cause disorientation resulting in koalas moving into harvest zones at any time.

KOALA EMERGENCY RESCUE PLAN

KIC will be **immediately** contacted by Forestry Corporation NSW or its contractor in the following circumstances:

1. If a koala is injured during harvesting activities or observed to be diseased ie dirty rump area or red, sore eyes.
2. If a koala is located on-route to a harvesting area and appears to be injured, diseased or disorientated.
3. In the event that a joey is found separated from its mother during harvesting/on-route to harvesting zones then all vehicle/machinery movement will cease while a search is conducted. It is essential that KIC be contacted **immediately** for search & rescue. These koalas will be admitted into care for assessment & observation as it can be common for a female koala to reject its joey after such an event. **These koalas must not be released by Forestry Corporation NSW staff or contractors.**
4. In the event of a koala being injured during harvesting operations the koala is to be contained on the ground (it should not be allowed to climb a tree) with a blanket over the top of the animal to restrict its movement. The area should be kept quiet to lessen the stress of the koala, shade should be provided until the KIC team arrive to assess the koala's condition & provide medical assistance.

5. In the event of a koala being sighted during harvesting operations for recording data.
6. Upon arrival KIC will assess & stabilise the koala & prepare it for transport to Taree Veterinary Hospital for assessment.
7. In the event of a koala suffering fatal injuries KIC is to be contacted immediately so the body can be collected & taken to Taree Veterinary Hospital for a post mortem.

KOALAS IN CARE INC CONTACT DETAILS:

TREATING VET:

HARVESTING AREA ACCESS FOR KIC

In the event that Forestry Corporation NSW needs to contact KIC to attend, three (3) experienced Koala Rescuers have been site inducted.

- 1.
- 2.
- 3.

In order to facilitate the rescue of any injured koala, harvesting staff should provide clear access for KIC rescue vehicles. KIC Rescuers will use UHF radio channel 24 on arriving at the location & then change to channel 26 at gate entry as per site induction instructions.

Mobile phone contact may also be made to Forestry Corporation NSW contact numbers:

Providing Help for Koalas in Need

<http://www.epa.nsw.gov.au/resources/forestagreements/LNETSLam5.pdf>

“6.14 Koala Phascolarctos cinereus

a) The following must apply wherever Koala mark-up searches have identified Koala high use areas or Koala intermediate use areas:

i. Specified forestry activities are prohibited within all Koala high use areas. A 20 metres wide exclusion zone must be implemented around the boundary of Koala high use areas.

ii. In Koala intermediate use areas, per two hectares of net logging area ten primary browse trees must be retained where available. These trees must be marked for retention. Within intermediate use compartments, Australian Group Selection silvicultural techniques are prohibited in preferred forest types.

b) The felling of trees into a Koala high use area is prohibited. The felling of trees across the boundary of the exclusion zone established under condition 6.14 (c) (i) is prohibited except where no more than six (6) trees containing timber logs are felled across the boundary in any 200 metre length of the boundary of the exclusion zone, whatever 200 metre length of boundary is considered.

c) Condition 6.14 (d) is not breached where a tree is accidentally felled into a Koala high use area or exclusion zone.

d) A tree that is accidentally felled into an exclusion zone may be removed from the zone, but only if it contains a timber log. The tree may be removed even if the total number of trees removed in the harvesting operation concerned will, as a result, exceed the number calculated by applying the principle set out in condition 6.14 (d).

e) A tree that is felled into an exclusion zone under condition 6.14 (c), or accidentally, may be removed only in accordance with the following rules:

i. the crown must be cut off from the trunk and left where it has fallen, except where the whole of the tree (including the crown) is lifted out of the zone using a mechanical harvester; and

ii. in removing the tree (or any logs into which it is cut), any disturbance to the ground and soil must be minimised as far as practicable.

(Note: A failure to comply with the requirements of a Local Koala Management Plan will be regarded as a breach of this licence.) [This note applied to previous versions of the licence (2003 to 2013)]”

Date: 17 March, 2014



Department of
Primary Industries

www.dpi.nsw.gov.au



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**Forestry
Corporation**

www.forestrycorporation.com.au