



GREATER TAREE CITY COUNCIL

Draft

COMPREHENSIVE KOALA PLAN OF MANAGEMENT

PART 1: THE CKPoM

**Prepared for Greater Taree City Council
under *State Environmental Planning Policy
No. 44 – Koala Habitat Protection***

by

Australian Koala Foundation

*with Greater Taree City Council and
the CKPoM Steering Committee*

September 2002



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COMPREHENSIVE KOALA PLAN OF MANAGEMENT

PART 1: THE CKPoM

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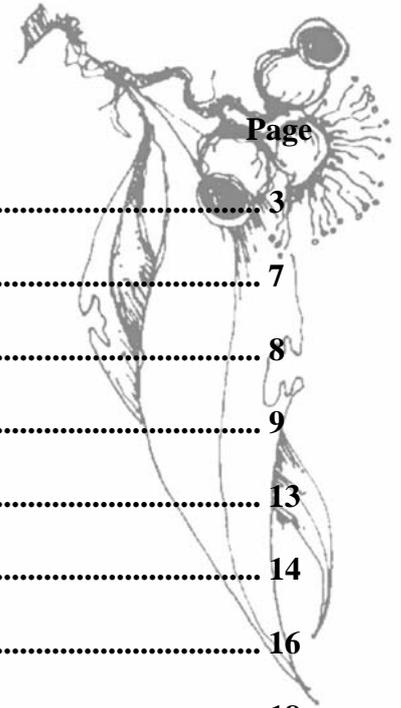
September 2002

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1 INTRODUCTION

The Greater Taree City Council Comprehensive Koala Plan of Management (CKPoM) consists of two parts. The CKPoM (Part 1) includes a brief synopsis for each of the management topics (chapters) that are detailed in the accompanying CKPoM Resource Document (Part 2), together with specified management actions.

The Greater Taree City Council CKPoM has been prepared for the Greater Taree Local Government Area (LGA) in accordance with *State Environmental Planning Policy No. 44 - Koala Habitat Protection (SEPP 44)* and accompanying guidelines, including Circular No. B35 (Department of Planning 1995) and National Parks and Wildlife Service (NPWS) draft 'Procedures for preparing comprehensive plans of management for Koalas under SEPP 44' (Lunney *et al.* 1997). The Draft Port Stephens Koala Management Plan (Callaghan, J., Leathley, S. & Lunney, D. 1994) as referred to in SEPP 44, together with subsequent joint work by the Australian Koala Foundation (AKF), NSW National Parks and Wildlife Service (NPWS) and Port Stephens Council to complete the Port Stephens Council Comprehensive Koala Plan of Management (2002), have provided models for preparing the Greater Taree City Council CKPoM. The Greater Taree City Council CKPoM was preceded by a draft Koala Habitat Atlas report (Phillips & Callaghan 1997).

The Greater Taree City Council CKPoM is consistent with the National Koala Conservation Strategy (ANZECC 1998), in seeking to conserve Koalas by identifying and protecting existing habitat and incorporating Koala conservation into local government planning processes (Lunney *et al.* 1998).

The Greater Taree City Council CKPoM has been prepared in accordance with the following principal aim of SEPP 44:

“...to encourage the proper conservation and management of areas of natural vegetation that provide habitat for Koalas, to ensure permanent free living populations over the present range and to reverse the current trend of population decline.”

Once the Greater Taree City Council CKPoM has been approved by both Council and the Director-General of Urban Affairs and Planning (now PlanningNSW), it will supersede the requirements of SEPP 44 with respect to the investigation of potential and core Koala habitat and the requirement for preparation of Individual Koala Plans of Management (IKPoMs). Compliance with the Greater Taree City Council CKPoM will constitute compliance with SEPP 44 for relevant matters in the Greater Taree LGA. However, where an Individual KPoM has already been approved in conjunction with a development application and it conflicts with the provisions of the CKPoM, the IKPoM shall prevail.

The *Native Vegetation Conservation Act 1997* (NVC Act) provides for the preparation of Regional Vegetation Management Plans (RVMPs). The Manning RVMP is currently in preparation and will require consent for clearing of native vegetation in rural lands within the Greater Taree LGA. Section 27 (2) of the NVC Act requires that “in preparing a draft

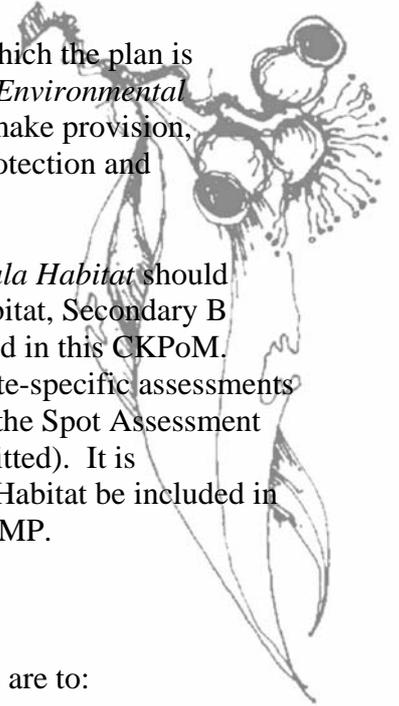
Regional Vegetation Management Plan, if any part of the land to which the plan is intended to apply is core koala habitat within the meaning of *State Environmental Planning Policy No 44 – Koala Habitat Protection*, the plan must make provision, consistent with any guidelines under that Policy, for appropriate protection and management with respect to that habitat.”

For the purposes of the NVC Act, it is recommended that *Core Koala Habitat* should include all areas of Primary Koala Habitat, Secondary A Koala Habitat, Secondary B Koala Habitat, Habitat Buffers and Habitat Linking Areas as defined in this CKPoM. Additionally, *Core Koala Habitat* should include all areas where site-specific assessments indicate moderate or high Koala activity levels in accordance with the Spot Assessment Technique (Phillips & Callaghan 1995; Phillips & Callaghan submitted). It is recommended that Primary Koala Habitat and Secondary A Koala Habitat be included in the highest ecological significance ranking within the Manning RVMP.

1.1 CKPoM Objectives

The principal objectives of the Greater Taree City Council CKPoM are to:

- ❖ Evaluate and rank Koala habitat throughout the Greater Taree LGA;
- ❖ Identify priority conservation areas and strategies to protect Koala habitat;
- ❖ Identify the principal threats that adversely impact on Koalas and Koala habitat within the Greater Taree LGA;
- ❖ Provide for the long-term survival of Koala populations within the Greater Taree LGA by devising conservation strategies to effectively address threats impacting on Koalas and Koala habitat;
- ❖ Provide for the restoration of degraded Koala habitat areas;
- ❖ Promote a balanced approach to Koala conservation and development;
- ❖ Ensure that adequate detail is provided with Development Applications and Rezoning Proposals in order to assess, minimise and effectively ameliorate likely impacts on Koala habitat;
- ❖ Provide guidelines and development standards to protect Koala habitat;
- ❖ Provide for effective public awareness and education programs concerning Koala conservation issues;
- ❖ Identify potential funding sources for implementation of the CKPoM;



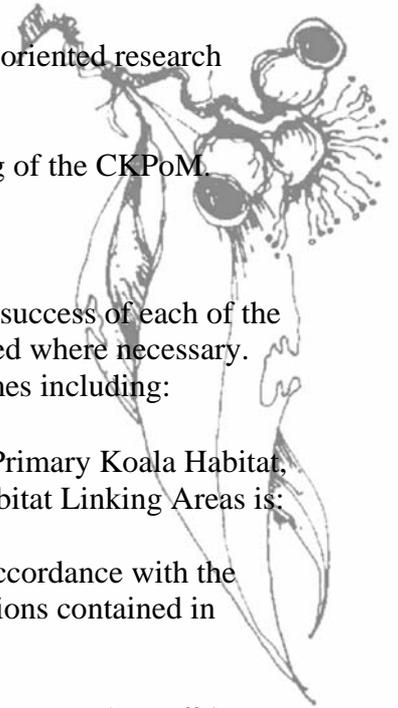
- ❖ Facilitate targeted Koala conservation and management oriented research projects within the Greater Taree LGA; and
- ❖ Provide for the effective implementation and monitoring of the CKPoM.

1.2 Performance Indicators

The following performance indicators are designed to facilitate the success of each of the proposed actions and to allow the CKPoM to be assessed and refined where necessary. The performance indicators consist of specific conservation outcomes including:

- The loss of Koala habitat within areas identified as Primary Koala Habitat, Secondary A Koala Habitat, Habitat Buffers and Habitat Linking Areas is:
 - i) minimised and restricted to that permissible in accordance with the performance standards for development applications contained in Appendix 4 of the CKPoM; and
 - ii) reduced in each successive year over the next five years (*initially*).
- The annual Koala population assessments undertaken at designated monitoring sites indicate that the majority of the surveyed Koala populations, including urban populations, are stable or increasing (determined on the basis of activity levels, evidence of successful breeding, signs of disease, mortality and survivorship, and population estimates), within 5 years from the adoption of the CKPoM.
- Annual statistics indicate that Koala mortality due to collisions with motor vehicles is not on the increase, in conjunction with stable or increasing Koala population estimates in the vicinity of identified black spot areas.
- Annual statistics indicate that Koala mortality due to dog attacks is not on the increase, in conjunction with stable or increasing Koala population estimates in the vicinity of identified high-risk dog attack areas.
- A minimum of 5 hectares of Koala habitat per year is replanted (and successfully maintained in subsequent years) in areas identified as a high priority for restoration according to the criteria outlined in the Habitat Restoration Chapter of the CKPoM Resource Document.

In addition to the conservation outcomes listed above, the CKPoM should be assessed in terms of implementation of each of the proposed actions. For example, the success of the habitat conservation strategy should be assessed initially by determining whether each of the habitat conservation measures is implemented according to schedule.



The Monitoring Chapter of the CKPoM Resource Document outlines how the performance indicators will be used to monitor and refine the CKPoM.

2 KOALA HABITAT IDENTIFICATION

2.1 Synopsis

The identification of Koala habitat within the Greater Taree LGA has involved the preparation of an LGA-wide Koala Habitat Atlas (KHA) by the Australian Koala Foundation. The KHA was intersected for verification purposes with Koala records from a community-based survey (Greater Taree City Council 1995), together with records from other sources including the Koala Preservation Society of NSW Inc., the NPWS 'Atlas of NSW Wildlife' and State Forests of NSW. **The Koala Habitat Atlas has identified and ranked habitat into categories including Primary Koala Habitat, Secondary A Koala Habitat, Secondary B Koala Habitat, and Secondary C Koala Habitat. Computer-generated Habitat Buffers and Habitat Linking Areas (collectively referred to as Tertiary Koala Habitat) were then added to complete the KHA (Figure 1).** Habitat Buffers were added to all Primary and Secondary A Koala Habitat at a width of 100 m over areas of native vegetation and 50 m over Mainly Cleared Land. The generation of Habitat Linking Areas involved patches of Primary and Secondary A Koala Habitat.

The Koala Habitat Atlas provides the basis for identifying the areas considered to warrant the highest level of habitat protection including all Primary Koala Habitat and Secondary A Koala Habitat. Secondary B Koala Habitat, Secondary C Koala Habitat and Tertiary Koala Habitat also require protection, although to a lesser degree.

The field surveys and analysis for the KHA confirmed the following tree species as being preferentially utilised by Koalas in the Greater Taree LGA. **Primary species:** Forest Red Gum *Eucalyptus tereticornis*, Tallowwood *E. microcorys*, and Swamp Mahogany *E. robusta*. **Secondary species:** Small-fruited Grey Gum *E. propinqua*, Grey Ironbarks *E. placeta/E. paniculata*, Ironbark *E. siderophloia*, and Thin-leaved Stringybark *E. eugenioides*. Additional tree species considered likely to be preferred by Koalas within the LGA include Cabbage Gum *E. amplifolia*, Ribbon Gums *E. viminalis/E. nobilis* and Messmate Stringybark *E. obliqua*. **Collectively, these tree species are referred to as Preferred Koala Food Trees and provide the basis for the Koala Habitat Model and associated mapping for the Greater Taree LGA.**

Supplementary Koala Food Tree species in the Greater Taree LGA include Red Mahogany *E. resinifera*, Narrow-leaved Red Gum *E. seeana*, Blue-leaved Stringybark *E. agglomerata*, Broad-leaved White Mahogany *E. umbra*, and Spotted Gum *Corymbia maculata*.

Koalas are also known to utilise many other tree species within the Greater Taree LGA where they occur in association with the Preferred or Supplementary species.



In addition to protecting areas of significant Koala habitat, Preferred Koala Food Trees warrant protection wherever they occur within the LGA. For the purpose of this CKPoM, individual Preferred Koala Food Trees are afforded protection within all categories of Koala habitat.

The procedures undertaken to identify Koala tree species and habitat preferences within the Greater Taree LGA are detailed in chapters 4 and 5 of the CKPoM Resource Document.

3 ECOLOGICAL HISTORY

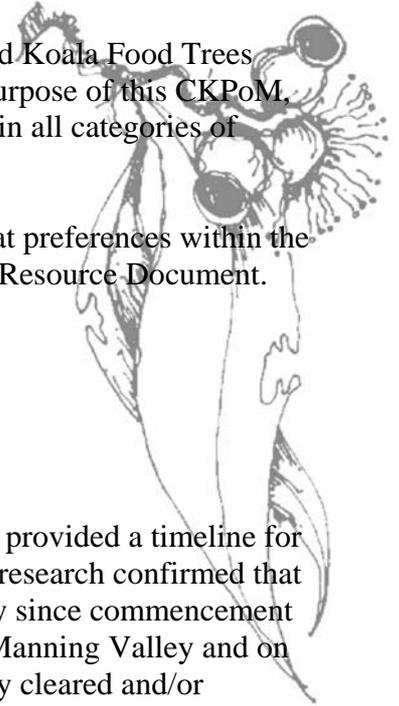
3.1 Synopsis

The historical research undertaken in conjunction with the CKPoM provided a timeline for settlement, land use and land clearing in the Manning Valley. The research confirmed that Koala habitat in the Greater Taree LGA has contracted dramatically since commencement of European settlement in the 1830's. Koala habitat in the Lower Manning Valley and on the valley floors of the Upper Manning Valley has been periodically cleared and/or disturbed for agricultural and forestry purposes, and more recently through urban expansion. In addition, Koalas were heavily hunted for their skins during the economic depression in the 1890's.

Historical reports such as the following examples from 1898 issues of 'The Manning River Times' indicate that koalas were once abundant in the Manning Valley: i) "*Messrs. Hayward and Cowan shot 62 bears, at Marlee, on Friday evening last*"; ii) "*A dray loaded with bear skins arrived from Marlee containing many thousands of skins*"; iii) "*A large bale of bear skins, estimated to contain about 500, was shipped to Sydney aboard the steamer Coraki*"; and iv) "*A great many persons are shooting native bears on the Upper Manning for the sake of obtaining their skins which bring about 10/- or 12/- per dozen. Some say they can make very fair wages at it, bears being very abundant in these parts*". Today, koala numbers appear quite low throughout the majority of the Greater Taree LGA.

This historical information emphasises the need for an integrated approach to future management of the local Koala population. With approximately 60% of the identified Koala habitat in the Greater Taree LGA occurring on private property, it is essential that private property owners and the community become involved in local Koala conservation and management initiatives.

The ecological history research has also provided guidance regarding the likely distribution of pre-European vegetation communities of the Manning Valley, including many areas that have been predominantly cleared. This will subsequently assist with the identification of land for potential habitat restoration as described in the CKPoM Resource Document.



4 HABITAT CONSERVATION MEASURES

4.1 Synopsis

An effective strategy to conserve Koala habitat is essential to provide for the long-term survival of the Koala population within the Greater Taree LGA. Such a strategy will need to involve the integration of a range of conservation measures, including regulatory (legislative) and incentives-based approaches, in conjunction with effective community education.

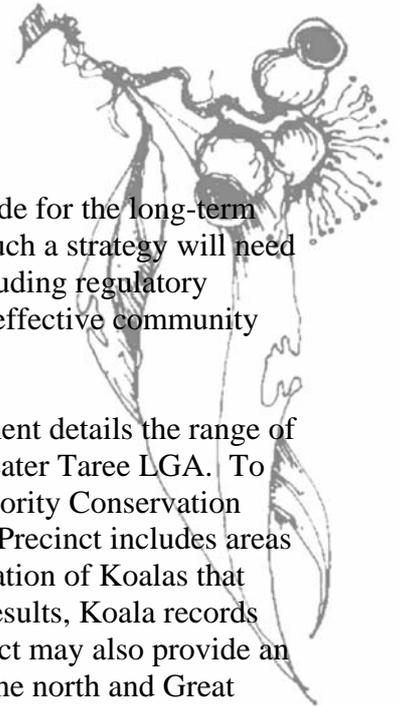
The Habitat Conservation Chapter in the CKPoM Resource Document details the range of conservation measures proposed for application throughout the Greater Taree LGA. To further assist Council with future strategic planning initiatives a Priority Conservation Precinct has been identified (Figure 2). The Priority Conservation Precinct includes areas considered to currently support the most significant (source) population of Koalas that remains within the LGA; based upon a review of the field survey results, Koala records and subsequent habitat mapping. The Priority Conservation Precinct may also provide an important connection with Koala populations in Hastings LGA to the north and Great Lakes LGA to the south.

Proposed regulatory measures include: amendments to the *Greater Taree Local Environmental Plan (LEP) 1995* to require Council consent for any proposed *development* or *activity* that would involve clearing or tree removal within Koala habitat areas throughout the LGA, to prohibit the subdivision or intensification of landuse within certain categories of Koala habitat, to activate the provisions and performance standards in the CKPoM, to specify guidelines for Koala habitat assessment and information that must be supplied to accompany development applications and rezoning proposals, and to protect Preferred Koala Food Trees wherever they occur.

A further amendment is proposed to the *Greater Taree Local Environmental Plan (LEP) 1995* to explicitly prohibit land clearing or tree removal within lands zoned 7 (a) Environmental Protection (Habitat) Zone.

Performance standards for rezoning proposals and development applications, and guidelines for Koala habitat assessment are presented in the following Development Assessment Chapter.

Incentives-based habitat conservation measures recommended for consideration include: Voluntary Conservation Agreements, Voluntary Conservation Zonings, Management Agreements and Wildlife Refuges. Potential incentives schemes that could be employed to encourage landholders to voluntarily conserve Koala habitat include: rate exemptions, management grants and development incentives, as outlined in the Habitat Conservation Chapter in the CKPoM Resource Document.



A program is proposed to investigate and promote Voluntary Conservation Zonings over Primary and Secondary Koala Habitat, particularly within the Priority Conservation Precinct illustrated in Figure 2, in conjunction with suitable incentives schemes.

A number of land management agencies have land holdings in the LGA including Greater Taree City Council, NSW National Parks & Wildlife Service, State Forests of NSW, and the Department of Land and Water Conservation. The potential role of such agencies in the management of Koala habitat is discussed in chapter 4 of the Resource Document.

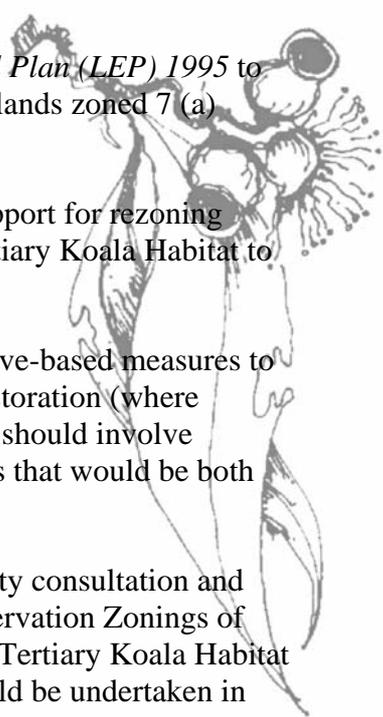
4.2 Actions

Greater Taree City Council

- i) Council amend the *Greater Taree Local Environmental Plan (LEP) 1995* by way of an amending LEP as specified in Appendix 1, to activate the provisions of the CKPoM including the performance standards for the assessment of rezoning proposals and development applications, and the Guidelines for Koala Habitat Assessment. The amending LEP will prohibit or restrict *developments* or *activities* involving clearing, subdivisions, or intensification of land use zonings within specified Classes of Koala Habitat in accordance with the performance standards in the CKPoM, whilst seeking to protect Preferred Koala Food Trees wherever they occur in the LGA.

The amending LEP will apply to all land within the Greater Taree LGA classified as Class 1, 2, 3, 4 and 5 on maps marked "*Greater Taree Local Environmental Plan 1995* Koala Planning Map". (On these maps, Class 1 = Primary Koala Habitat from the CKPoM; Class 2 = Secondary A Koala Habitat *with* known Koala Activity; Class 3 = Secondary A Koala Habitat *without* known Koala Activity; Class 4 = Secondary B and Secondary C Koala Habitat; Class 5 = Tertiary Koala Habitat comprised of Habitat Buffers and Habitat Linking Areas).

- ii) Council instigate a program to systematically assess Class 3 Koala habitat throughout the LGA for evidence of Koala Activity, commencing within the identified Priority Conservation Precinct.
- iii) Council undertake annual upgrades of Class 3 Koala habitat areas discovered to contain evidence of Koala Activity, to Class 2 Koala habitat.
- iv) Council amend the objectives for the Environmental Protection (Habitat) Zone as contained in the *Greater Taree Local Environmental Plan (LEP) 1995* as per that proposed in Appendix 2.

- 
- v) Council amend the *Greater Taree Local Environmental Plan (LEP) 1995* to explicitly prohibit land clearing or tree removal within lands zoned 7 (a) Environmental Protection (Habitat) Zone.
 - vi) Council consult with public authorities to seek their support for rezoning public lands containing Primary, Secondary and/or Tertiary Koala Habitat to Environmental Protection (Habitat) Zone.
 - vii) Council investigate the potential introduction of incentive-based measures to encourage voluntary conservation, management and restoration (where appropriate) of Koala habitat on private property. This should involve consultation with property owners to identify incentives that would be both feasible for Council and appealing to landholders.
 - viii) Council investigate, prepare and implement a community consultation and promotion strategy to seek support for Voluntary Conservation Zonings of private property containing Primary, Secondary and/or Tertiary Koala Habitat to Environmental Protection (Habitat) Zone. This should be undertaken in conjunction with suitable incentives schemes.
 - ix) Council, in liaison with the Koala Preservation Society of NSW Inc., the National Parks and Wildlife Service, and the Australian Koala Foundation, prepare specific management and community education strategies to minimise threats to Koalas and Koala habitat in the Taree and Hallidays Point areas, if the first monitoring report indicates the need for finer-scale management.
 - x) Council prepare a *Code of Logging Practice* consistent with the provisions of this CKPoM for Selective Logging proposals involving (only) Class 3, 4 or 5 Koala habitat on private property.
 - xi) Council demonstrate best-practice management of Koala habitat by fully applying the provisions of the Greater Taree CKPoM and amending LEP in conjunction with all Council development and land management activities.

National Parks and Wildlife Service

- xii) The National Parks and Wildlife Service continue to investigate and negotiate potential Voluntary Conservation Agreements and Wildlife Refuges where appropriate for the conservation of Koala habitat.
- xiii) The National Parks and Wildlife Service investigate and if appropriate, promote nomination of significant Koala habitat areas within the Greater Taree LGA for addition to the Register of the National Estate.

- xiv) The National Parks and Wildlife Service incorporate relevant findings and strategies from the Greater Taree CKPoM into the finalisation and implementation of the state-wide Koala Recovery Plan, currently in preparation under the *Threatened Species Conservation Act 1995*.

State Forests of NSW

- xv) State Forests of NSW incorporate relevant findings and strategies from the Greater Taree CKPoM into forest management and harvesting protocols wherever appropriate.

Department of Land and Water Conservation

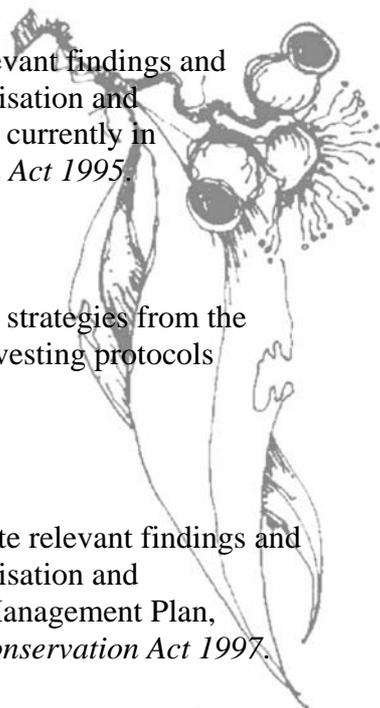
- xvi) Department of Land and Water Conservation incorporate relevant findings and strategies from the Greater Taree CKPoM into the finalisation and implementation of the Manning Regional Vegetation Management Plan, currently in preparation under the *Native Vegetation Conservation Act 1997*.
- xvii) Department of Land and Water Conservation undertake assessments of applications to remove native vegetation from rural lands within the Greater Taree LGA in accordance with the Guidelines for Koala Habitat Assessment contained in this CKPoM.

PlanningNSW

- xviii) PlanningNSW include identified Koala habitat in the Greater Taree LGA within future Regional Environmental Planning Programs in consultation with the Greater Taree City Council.

Private Land Holders

- xix) Private land holders conserve and manage Koala habitat on private lands to the greatest extent possible.
- xx) Private land holders restore degraded areas of former Koala habitat on private lands wherever possible.
- xxi) Private land holders ensure that appropriate procedures and consultation have been undertaken with GTCC, DLWC and NPWS, and any necessary approvals obtained prior to commencing any *development* or *activity* likely to effect the environment of Koalas on private land. This extends to any proposed land clearing or removal of individual Preferred Koala Food Trees.



5 DEVELOPMENT ASSESSMENT

5.1 Synopsis

The development assessment process refers to the procedure by which development and land use is assessed and regulated. This procedure represents an important means by which Council can regulate development to ensure the protection and effective management of Koala habitat in the Greater Taree LGA. Assessment guidelines have been established to standardise the treatment of issues relating to the management of Koalas and Koala habitat within the development assessment process.

Primary Koala Habitat and Secondary A Koala Habitat require the highest level of protection possible. Secondary B Koala Habitat, Secondary C Koala Habitat and Tertiary Koala Habitat (Habitat Buffers and Habitat Linking Areas) also require a high level of protection, though generally less than for Primary Koala Habitat and Secondary A Koala Habitat (see chapter 5 of the CKPoM Resource Document). Preferred Koala Food Trees require protection wherever they occur in the Greater Taree LGA.

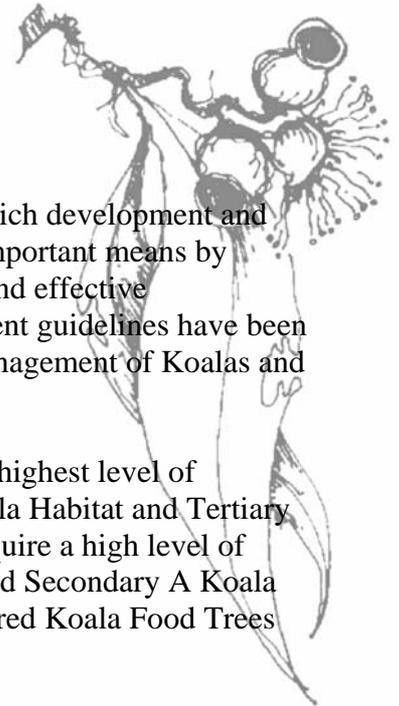
Performance standards have been prepared to guide the assessment of development applications pertaining to land that contains or is adjacent to Primary or Secondary Koala Habitat, Habitat Buffers or Habitat Linking Areas, and/or Preferred Koala Food Trees. These performance standards are contained in Appendix 4 of this CKPoM.

Performance standards have also been prepared to guide the assessment of rezoning requests pertaining to land that contains or is adjacent to Primary or Secondary Koala Habitat, Habitat Buffers or Habitat Linking Areas, and/or Preferred Koala Food Trees. These performance standards are contained in Appendix 3 of this CKPoM.

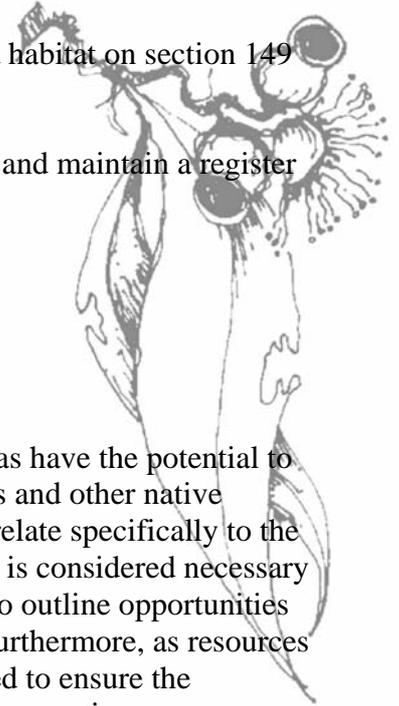
Guidelines for Koala habitat assessment were developed to provide the information necessary to support a rezoning proposal under Part 3, or a development application under Part 4 of the *Environmental Planning and Assessment Act 1979*. The Guidelines for Koala Habitat Assessments in the Greater Taree LGA are presented in Appendix 5 of this CKPoM.

5.2 Actions

- i) Council adopt and apply the performance standards for assessment of rezoning proposals (Appendix 3).
- ii) Council adopt and apply the performance standards for assessment of development applications (Appendix 4).
- iii) Council adopt and promote the Guidelines for Koala Habitat Assessment (Appendix 5).



- iv) Council include information regarding the presence of Koala habitat on section 149 certificates.
- v) Council provide a Koala Assessment Accreditation Program and maintain a register of persons who have successfully completed the program.



6 HABITAT RESTORATION

6.1 Synopsis

In the absence of careful management, remaining Koala habitat areas have the potential to become further degraded and fragmented to the detriment of Koalas and other native species. Existing land management strategies and practices rarely relate specifically to the restoration of Koala habitat. Consequently, a management strategy is considered necessary to identify principal impacts associated with land degradation and to outline opportunities to optimise Koala habitat quality within the Greater Taree LGA. Furthermore, as resources for restoration works are finite, it is essential that areas be prioritised to ensure the maximum possible benefit of habitat restoration efforts to Koala conservation.

Koala habitat restoration projects in the Greater Taree LGA will need to involve a range of activities including revegetation (plantings), assisted regeneration (e.g. control of weeds; fencing to exclude livestock) and reconstruction. Selection of the most suitable approach for different sites will depend upon the specific requirements to achieve recovery of the vegetation communities. Regeneration techniques are most appropriate where natural recovery potential is high, whilst more intensive reconstruction activities may be necessary in more heavily cleared and disturbed areas where the potential for natural recovery is low (Greening Australia 1999). Habitat reconstruction as defined by Saunders and Hobbs (1995) involves recreating the ecological requirements of the target species. For Koalas this will include revegetation with suitable trees for food, shelter and social interaction. However, Saunders and Hobbs (1995) maintain that habitat reconstruction means more than simply replanting vegetation. It also involves facilitating the restoration of other ecosystem components and processes that are vital to ecosystem function (see the Habitat Restoration Chapter in the CKPoM). Thus, the restoration of Koala habitat should ideally involve more than simply replanting suitable species of trees. Habitat restoration projects should also involve measures to ameliorate impacts from relevant threatening processes.

Major impacts on Koalas within the Greater Taree LGA include habitat destruction, degradation and fragmentation, urban expansion, feral animals, traffic and bushfires. These factors, together with others such as roaming domestic dogs and weed infestation, could collectively lead to the localised extinction of Koala sub-populations in the LGA.

Koala Habitat Destruction, Degradation and Fragmentation

Clearing of Native Vegetation was listed in September 2001 as a 'Key Threatening Process' in NSW under the *Threatened Species Conservation Act 1995*.

Habitat destruction and degradation has devastating effects on populations of native wildlife including Koalas. As well as potential death or injury to Koalas during habitat clearing, habitat destruction and degradation are likely to increase pressures on adjacent habitat as remaining animals are confined to smaller areas, with individuals forced to live under sub-optimal conditions.

The history of extensive clearing and fragmentation of habitat in the Manning Valley from the early years of European settlement is documented in the Ecological History Chapter of the CKPoM Resource Document.

Feral Animals

Feral animals including dogs, foxes, cats, goats and others are known to inhabit the Greater Taree LGA. Feral dogs and foxes are considered to pose a significant threat to Koalas. The impact of feral animals such as dogs and foxes on Koalas is exacerbated when habitat is fragmented, as Koalas are forced to spend more time on the ground moving between trees, thus making them more vulnerable to predation (Hume 1990). Feral animals such as pigs and goats can impact on Koala habitat by degrading the understorey and inhibiting regrowth of native trees. Hence, restoration of fragmented habitat, in conjunction with measures aimed at controlling feral animals, should help to reduce impacts on Koalas.

Bushfires

Bushfires are a regular occurrence within the Greater Taree LGA and have the potential to impact significantly upon local Koala populations, particularly where they burn intensely over extensive areas. Frequent bushfires can alter the composition and structure of vegetation communities and can impede the successful growth of eucalyptus seedlings.

6.2 Actions

Identification and Prioritization of Habitat to be Restored

- i) Council prepare a prioritised list of Koala habitat areas for restoration, in liaison with the AKF and NPWS, using criteria detailed in the Habitat Restoration Chapter of the CKPoM Resource Document. The computer-modeled map of Habitat Linking Areas should be used as a guide to identifying priority areas of mainly cleared or degraded lands for potential restoration (Figure 3). It is recommended that initial habitat restoration projects should be focused within the Priority Conservation Precinct illustrated in Figure 2.
- ii) Council prepare a 'Koala Habitat Restoration Plan' for the LGA based upon the list of priority areas identified in i).

Budget and Resource Requirements

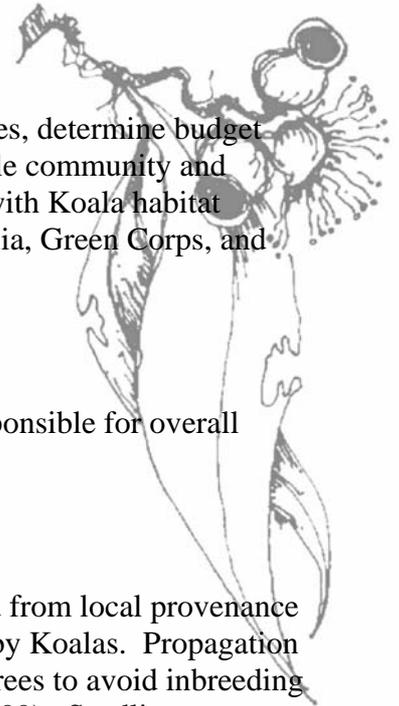
- iii) Council should liaise with relevant land management agencies, determine budget and resource requirements, seek funding, and identify suitable community and Landcare groups or schools prepared to undertake or assist with Koala habitat restoration projects. Organisations such as Greening Australia, Green Corps, and Green Reserves may also be able to assist.

Coordination of Habitat Restoration Projects

- iv) One Greater Taree City Council Officer should be made responsible for overall coordination of the Koala habitat restoration program.

Nursery Stock

- v) Nursery stock for restoration programs should be propagated from local provenance seed harvested from individual trees that have been utilised by Koalas. Propagation material to be collected from a range of well-spaced parent trees to avoid inbreeding and ensure potential for reproduction (Greening Australia 1999). Seedlings produced in nurseries should be labeled with species name and collection locations.



7 TRAFFIC MANAGEMENT

7.1 Synopsis

Data analyses undertaken in conjunction with the Port Stephens Council CKPoM (2002) suggested that the greater the speed of the vehicle, the less the likelihood of a Koala surviving a collision. Analysis of the combined Koala records for the Greater Taree LGA also suggested a similar relationship. However, collisions at any speed are often fatal and the most important consequence of slower speed is possibly a reduced likelihood of collisions.

Other factors in addition to traffic speed are considered likely to influence the chance of Koalas being hit while attempting to cross a road. Such factors include: features of the roadside environment; the width of the cleared zone between the road edge and adjacent trees; the width of gravel shoulders; the presence of roadside drains; the height of roadside vegetation; the degree of habitat disturbance in adjacent areas; and the presence of roadside lighting. These factors may affect driver ability to see a Koala before it attempts to cross onto the roadway, and to subsequently avoid a collision.

Eighteen of the total of 580 people (3.1%) who responded to the Greater Taree Community-based Koala Survey (1995) reported having seen a Koala dead on a road within the Greater Taree LGA. A total of 108 additional records of Koalas killed (75) or injured (33) on roads within the LGA were provided by the Koala Preservation Society of

NSW Inc., extending back to 1994. A total of 82 records of Koalas killed by cars, 35 records of Koalas injured by cars, plus an additional 215 Koalas sighted (but not hit) on roads, have been mapped for the Greater Taree LGA (see the Traffic Management Chapter in the CKPoM Resources Document).

Of the total records for traffic collisions with Koalas in the Greater Taree LGA, approximately 70% reportedly resulted in the death of the Koalas involved.

The significance of the impact of road fatalities will be greater than suggested by the data due to additional Koalas being hit and injured without being reported.

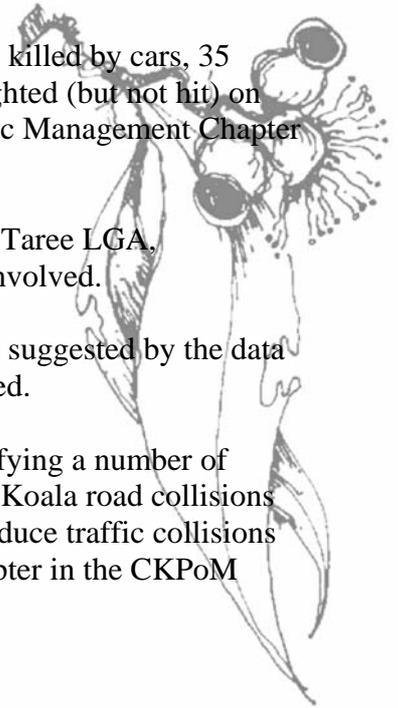
The Koala road fatality records have been used as a basis for identifying a number of Black Spot Areas, Conflict Areas, and Potential Problem Areas for Koala road collisions within the Greater Taree LGA (Figure 4). Proposed measures to reduce traffic collisions with Koalas are discussed in detail in the Traffic Management Chapter in the CKPoM Resource Document.

7.2 Actions

Greater Taree City Council and the Roads and Traffic Authority are encouraged to be proactive in attempting to reduce the impacts of traffic on Koalas and other native fauna. The following management strategy is recommended for roads in the Greater Taree LGA, other than the Pacific Highway:

Black Spot Areas

- i) Council install 'Koala Fatality' signs and 'Injured Wildlife' signs at Koala Black Spot Areas.
- ii) Council impose a 60 km/hr speed limit (where the present limit is greater) at each of the identified Black Spot Areas.
- iii) Council instigate a program of regular roadside slashing of grass in Black Spot Areas to minimise the height of roadside ground cover, where this does not necessitate tree removal including regrowth.
- iv) Council approach the local electricity company to investigate the possible installation of street lighting in urban Koala Black Spot Areas.
- v) Council investigate the possibility of providing a 1m wide painted strip (with rumble strips) across the roadway at the start and end of each designated Koala Black Spot Area to further alert drivers, in addition to signage.

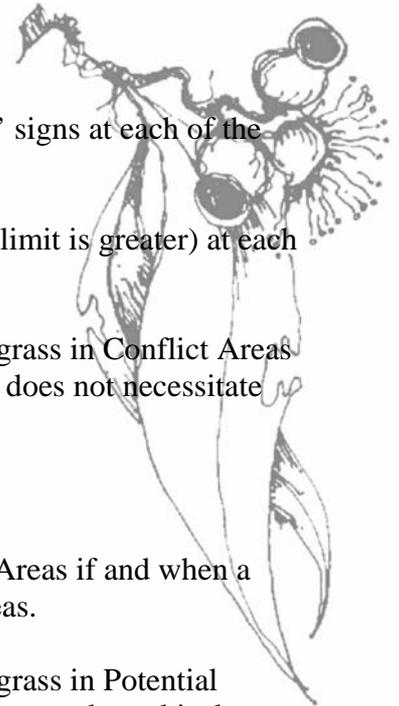


Conflict Areas

- vi) Council install 'Koala Warning' signs and 'Injured Wildlife' signs at each of the identified Conflict Areas.
- vii) Council impose an 80 km/hr speed limit (where the present limit is greater) at each of the identified Conflict Areas.
- viii) Council instigate a program of regular roadside slashing of grass in Conflict Areas to minimise the height of roadside ground cover, where this does not necessitate tree removal including regrowth.

Potential Problem Areas

- ix) Council install 'Koala Warning' signs at Potential Problem Areas if and when a future Koala collision is reported at any of the identified areas.
- x) Council instigate a program of regular roadside slashing of grass in Potential Problem Areas to minimise the height of roadside ground cover, where this does not necessitate tree removal including regrowth.



8 DOG MANAGEMENT

8.1 Synopsis

There are currently 5,483 registered dogs in the Greater Taree LGA, although the actual number of domestic dogs is likely to be considerably greater when unregistered dogs are taken into consideration. Irresponsible dog ownership potentially results in numbers of uncontrolled, roaming domestic dogs within parts of the LGA. Roaming domestic dogs, particularly large dogs and dog packs, pose a significant threat to Koalas and other native fauna that occupy habitat within and adjacent to urbanised areas.

The Greater Taree Community-based Koala Survey (1995) produced reports of three attacks on Koalas by dogs within the LGA. An additional seven records were supplied by the Koala Preservation Society of NSW Inc. From the total of 10 records of dog attacks, seven Koalas reportedly died as a result including two joeys. The remaining six Koalas were rescued and subsequently released by the Koala Preservation Society of NSW Inc.

The Dog Management Chapter in the CKPoM Resource Document discusses a number of management strategies that are available to Council including regulation under the *Companion Animals Act 1998* and community education to promote responsible dog ownership.

8.2 Actions

Litigation

- i) Council should prosecute the owner or person in charge of any dog that attacks or chases a Koala, under the provisions of the *Companion Animals Act 1998*, whenever evidence can be obtained that is likely to result in a conviction.

Policing

- ii) Council invoke the 'dangerous dog provisions' of the *Companion Animals Act 1998* where a dog has attacked, killed or chased a Koala, on more than one occasion.
- iii) Council develop and conduct a program of night patrols whenever possible during the Koala breeding season (August to February), with priority patrols in areas where dogs are considered likely to pose a significant threat to Koalas.
- iv) Council undertake a media campaign to accompany additional policing and night patrols in identified problem areas. These campaigns should occur annually in conjunction with the Koala breeding season.

Education

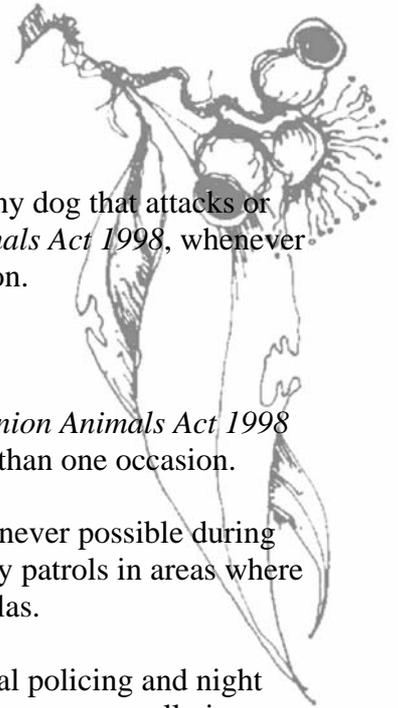
- v) Council develop suitable educational material to raise awareness of the threat to Koalas from roaming domestic dogs and to promote responsible dog ownership.
- vi) Council publicise any successful prosecutions against dog owners under the *Companion Animals Act 1998*.

Dog Exercise Areas

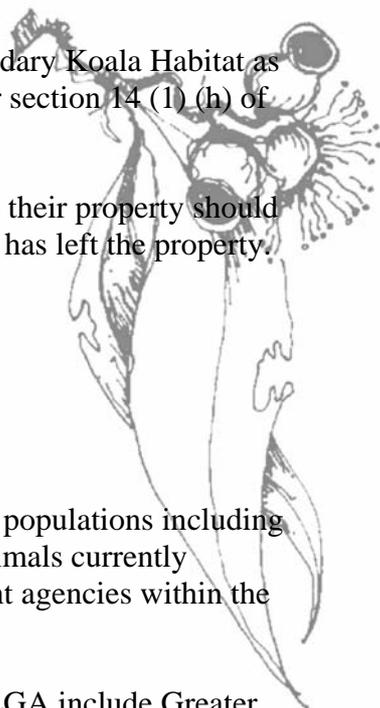
- vii) Council ensure that all designated off-leash dog exercise areas within the LGA do not conflict with identified Primary, Secondary or Tertiary Koala Habitat.
- viii) Council ensure that all public reserves are effectively sign-posted regarding dog exercise provisions.

Local Companion Animal Management Plans

The following special conditions are considered appropriate for areas identified as Primary or Secondary Koala Habitat and should be incorporated by Council into the provisions of any Local Companion Animal Management Plans for the LGA:



- ix) Designation of public places which contain Primary or Secondary Koala Habitat as “Wildlife Protection Areas”, where dogs are prohibited under section 14 (1) (h) of the *Companion Animals Act 1998*.
- x) Dog owners that become aware of the presence of a Koala on their property should be encouraged to restrain or confine their dog until the Koala has left the property.



9 FERAL ANIMAL MANAGEMENT

9.1 Synopsis

The Greater Taree LGA is known to contain a range of feral animal populations including wild dogs, foxes, cats, rabbits and goats. It is probable that feral animals currently adversely affect land administered by the principal land management agencies within the Greater Taree LGA, as well as private property.

The principal land management agencies within the Greater Taree LGA include Greater Taree City Council, State Forests of NSW, the National Parks and Wildlife Service, the Department of Land and Water Conservation, and PlanningNSW.

From the range of feral animal species known to occur within the LGA, feral dogs are considered likely to have the most significant direct impact on Koalas, and therefore warrant the highest management priority for the CKPoM.

9.2 Actions

- i) Council establish a Feral Animal Management Committee (or sub-committee) with representation from Council and each of the other principal land management agencies in the LGA, together with the Rural Lands Protection Board.
- ii) The Feral Animal Management Committee (or sub-committee) develop and oversee implementation of a Feral Animal Management Plan that would identify and address Koala-specific feral animal management issues, including those relating to feral dogs, together with a suitable community education strategy.
- iii) Council establish and promote a phone line for ongoing reporting of feral animals (as well as roaming domestic dogs), and develop and maintain a feral animals database linked to Council’s Geographic Information System (GIS).
- iv) The Feral Animal Management Committee encourage and promote priority local feral animal research projects by postgraduate University students.

- v) In conjunction with the Annual Koala Census referred to in the Monitoring Chapter, Council should also request callers to report any sightings of feral or roaming domestic dogs that are made on the day of the census.

10 BUSHFIRES

10.1 Synopsis

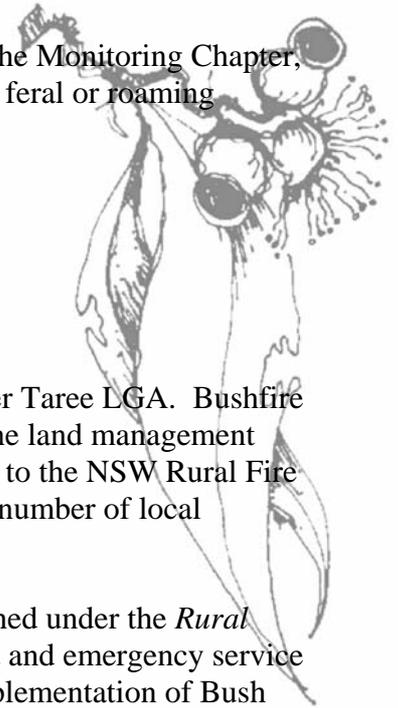
Bushfire represents a significant threat to wildlife within the Greater Taree LGA. Bushfire management features prominently in the policies and practices of the land management agencies within the LGA. This is particularly the case with respect to the NSW Rural Fire Service, which has considerable fire fighting resources including a number of local Volunteer Bushfire Brigades.

The Greater Taree Bush Fire Management Committee was established under the *Rural Fires Act 1997* and includes representatives from land management and emergency service agencies. The committee is responsible for the preparation and implementation of Bush Fire Risk Management Plans and Plans of Operations for the Greater Taree LGA. The *Rural Fires Act 1997* provides for consideration of impacts on fauna and flora and the environment in conjunction with the preparation of Bush Fire Risk Management Plans. In accordance with the *Rural Fires Act 1997*, Bush Fire Management Committees are required to have regard to the principles of ecologically sustainable development.

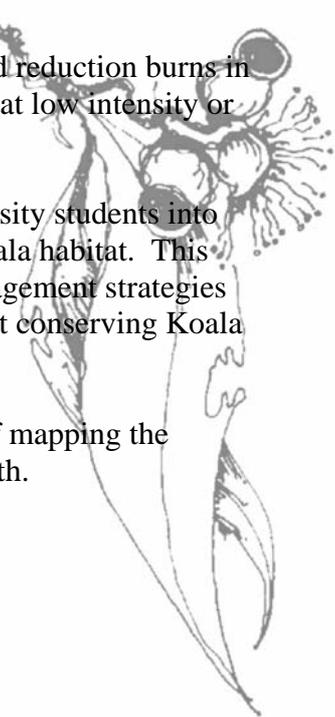
The Bushfires Chapter in the CKPoM Resource Document contains information about the potential impacts of bushfires and hazard reduction programs on Koala habitat.

10.2 Actions

- i) Council ensure that Koalas and Koala habitat, including Primary and Secondary Koala Habitat, and vegetated Habitat Buffers and Habitat Linking Areas, are thoroughly considered in Bushfire Risk Management Plans and Plans of Operations prepared by the Greater Taree Bush Fire Management Committee.
- ii) Council ensure that adequate consultation occurs with the National Parks and Wildlife Service, land management agencies and the NSW Rural Fire Service concerning any hazard reduction proposals, to assist in determining if Koalas or Koala habitat are likely to be significantly affected.
- iii) Land management agencies and the NSW Rural Fire Service should co-operate with the Koala Preservation Society of NSW Inc. and the National Parks and Wildlife Service concerning fauna welfare issues following bushfires.



- iv) Land management agencies should seek to ensure that any hazard reduction burns in areas known to support Koalas and Koala habitat are maintained at low intensity or managed in such a way as to minimise risks to resident Koalas.
- v) Council encourage and promote research by postgraduate University students into potential longer term impacts of hazard reduction burning on Koala habitat. This research would contribute to the ongoing refinement of fire management strategies that best meet objectives for minimising the risk to Koalas, whilst conserving Koala habitat and associated plant and animal communities.
- vi) Council utilise satellite imagery whenever possible as a means of mapping the extent and intensity of bushfires and monitoring post-fire regrowth.



11 KOALA WELFARE

11.1 Synopsis

Carers and carer groups in NSW require a licence from the National Parks and Wildlife Service (Wildlife Licensing Unit, NPWS, PO Box 1967, Hurstville NSW 2220). Koala care in NSW is managed in accordance with a National Parks and Wildlife Service (NPWS) policy document entitled “**Guidelines and Conditions for Koala Care in NSW**” (Lunney & Matthews 1997), which incorporated extensive public consultation.

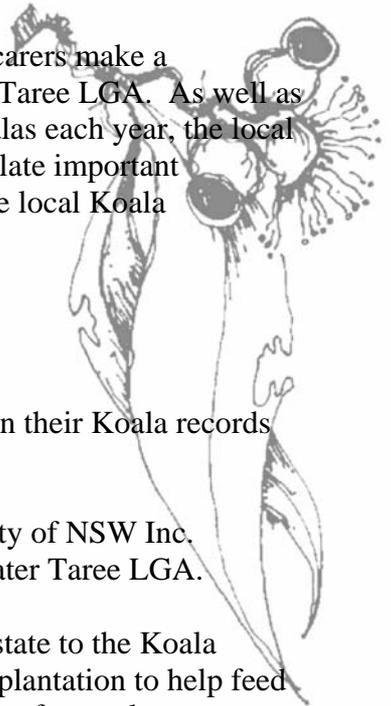
The Koala Preservation Society of NSW Inc. is the accredited organisation licensed by the NPWS to care for sick, injured, orphaned or otherwise distressed koalas in the Greater Taree LGA. The Koala Preservation Society of NSW Inc. carers in the LGA are supported by a number of local veterinary surgeons who have developed expertise in the assessment and treatment of sick, injured or orphaned Koalas. These local veterinarians assist the Koala carers in providing expert assessment and treatment of Koalas. The local carers are also supported by the Koala Preservation Society of NSW Inc. Koala Hospital at Port Macquarie.

Problems that most commonly require Koala rescue in the Greater Taree LGA include injuries from motor vehicles, illness or disease, and dog attacks.

Between September 1993 and September 2002 the Koala Preservation Society of NSW Inc. received a total of 221 Koala admissions from the Manning area, with 130 successful releases and 91 deaths. A break-up of confirmed causes for treatment includes:

- ❖ Motor vehicles: 60 cases treated (32 deaths).
- ❖ Conjunctivitis (*Chlamydia*): 36 cases treated (15 deaths).
- ❖ Wet Bottom (*Chlamydia*): 14 cases treated (9 deaths).
- ❖ Dog Attack: 12 cases treated (6 deaths).
- ❖ Falls: 8 cases treated (6 deaths).

The Koala Preservation Society of NSW Inc. and their local Koala carers make a significant contribution to the conservation of koalas in the Greater Taree LGA. As well as rescuing, rehabilitating, hand-raising, and releasing numbers of Koalas each year, the local carers contribute to community education on Koala matters, and collate important information that will assist with monitoring the ongoing status of the local Koala population and the efficacy of this CKPoM.



11.2 Actions

- i) Koala Preservation Society of NSW Inc. continue to maintain their Koala records database for the Greater Taree LGA.
- ii) Council continue to liaise with the Koala Preservation Society of NSW Inc. regarding access to their Koala records database for the Greater Taree LGA.
- iii) Council will donate a property in the Kolodong Industrial Estate to the Koala Preservation Society of NSW Inc. for establishing a browse plantation to help feed Koalas in care, equipment storage, and possible development of pre-release areas.

12 EDUCATION

12.1 Synopsis

Public education is an important component of initiatives to conserve the Koala population within the Greater Taree LGA. Public education programs should seek to promote a sense of stewardship and to increase awareness of threats to the local Koala population.

Methods of disseminating information to the general public could take the form of information brochures, sign posting, environmental education programs, Council telephone hold recordings, and use of the local media. A combination of a range of methods is recommended as the most suitable approach.

12.2 Actions

Information Brochure

- i) Council prepare an information brochure in consultation with the National Parks and Wildlife Service and the Australian Koala Foundation concerning the Greater Taree Koala population, outlining options for people to contribute to local Koala conservation efforts.

Environmental Education

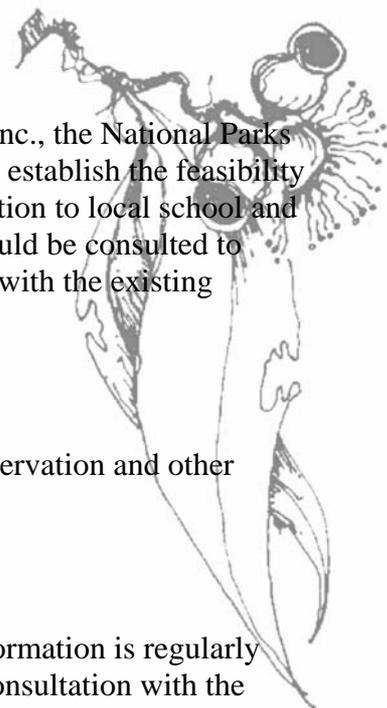
- ii) Council liaise with the Koala Preservation Society of NSW Inc., the National Parks and Wildlife Service and the Australian Koala Foundation to establish the feasibility of developing a Koala-based education program for presentation to local school and community groups. The NSW Department of Education should be consulted to ensure that any educational material produced is compatible with the existing Environmental Education Curriculum.

Telephone Hold Recordings

- iii) Council provide relevant information concerning Koala conservation and other environmental issues on their telephone hold recordings.

Liaising with Local Media

- iv) Council develop a program to ensure that relevant Koala information is regularly provided to the local media. This should be undertaken in consultation with the Koala Preservation Society of NSW Inc.



13 FUNDING

13.1 Synopsis

The ability of this CKPoM to meet the identified objectives will be partly dependent upon funding to implement the actions. Funding can be sought from a number of sources including State and Federal Government grants, Council revenue, and private or corporate sponsorship. Appropriate funding sources need to be identified for implementation of the CKPoM actions that require financial input.

Funding could be sought from a number of State and Federal Government schemes such as Environmental Trust Grants, Commonwealth Natural Heritage Trust and the Eco-tourism Grants Program. Potential funding options are outlined in the Funding Chapter of the CKPoM Resource Document.

The CKPoM Implementation Committee as described in the Implementation Chapter of this CKPoM should be responsible for investigating and seeking funding.

13.2 Actions

- i) Council make a submission to the Department of Local Government for a special variation to the general rate (Environmental Levy) in order to fund components of the CKPoM as well as other environmental management within the LGA.

- ii) The CKPoM Implementation Committee seek and co-ordinate funding from appropriate sources to implement the CKPoM actions that require financial input.

14 RESEARCH

14.1 Synopsis

Koala Management actions and decision making should be guided wherever possible by the outcomes of rigorous scientific research. In addition, research is a vital component of programs to monitor and evaluate the effectiveness of management actions.

Koala field surveys associated with this CKPoM have focused upon the identification of tree species and habitat preferences of Koalas within the Greater Taree LGA, as well as assessing the overall distribution of the current Koala population.

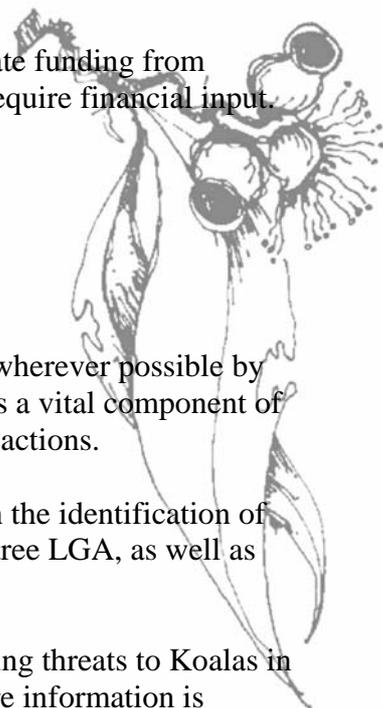
Limitations on both financial and staff resources, as well as increasing threats to Koalas in some areas, accentuate the importance of directing research to where information is lacking and where results are likely to be most useful for evaluating, monitoring and refining Koala habitat and population management initiatives.

14.2 Actions

- i) The CKPoM Implementation Committee identify and prioritise potential Koala research projects on the basis of their application to Koala habitat and population management, as well as implementation and monitoring of the CKPoM. The identification of priority research projects should be accompanied by investigation of possible funding sources.

A number of potential Koala research projects have been outlined in the Research Chapter of the CKPoM Resource Document.

- ii) The CKPoM Implementation Committee maintain a register of completed, ongoing and proposed future Koala research projects within the Greater Taree LGA. This register is to be kept at Greater Taree City Council.
- iii) The CKPoM Implementation Committee liaise with those undertaking Koala research in order to facilitate the involvement of interested volunteers in research projects where appropriate.
- iv) The CKPoM Implementation Committee identify and promote postgraduate University student research from the project register.



- v) The CKPoM Implementation Committee maintain a reference library at Greater Taree City Council of all reports concerning Koala related research undertaken within the LGA.
- vi) Researchers, including post-graduate students, should seek to make their research findings readily available, subject to intellectual property rights issues.

15 MONITORING

15.1 Synopsis

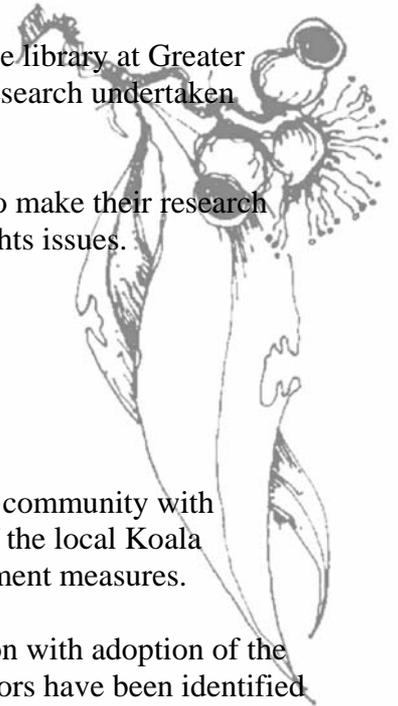
The monitoring program will provide researchers, planners and the community with ongoing information regarding the status, distribution and health of the local Koala population, together with feedback on the effectiveness of management measures.

An ongoing monitoring program will be implemented in conjunction with adoption of the CKPoM. As part of this program a number of Performance Indicators have been identified (as detailed in section 1.2 of this CKPoM and in the Monitoring Chapter of the CKPoM Resource Document). These indicators are designed to determine the level to which key outcomes have been achieved and to quantify the success or failure of the measures specified in the CKPoM. The monitoring program will include a procedure to be followed should the CKPoM fail to meet the identified performance indicators. A funding proposal for the monitoring program will also be necessary. It is intended that the CKPoM will be regularly reviewed with the potential for periodic amendment of the measures employed where necessary in accordance with results from the monitoring program.

The monitoring program will require the commitment and support of Greater Taree City Council. It is proposed that the responsibility for co-ordinating the monitoring program be assigned to a suitably qualified Council Officer.

This program will aim to periodically appraise the status of the Koala population and the available Koala habitat in the Greater Taree LGA. The status of the Koala population will be assessed on the basis of Koala Activity levels, evidence of breeding activity, records of mortality, and apparent changes in the distribution of Koalas within the LGA. The program will seek to accurately record changes in the amount and quality of available Koala habitat, together with changes in habitat utilisation. The impact of threatening processes upon the Koala population will be monitored to determine the level of success or failure of specific measures in the CKPoM. The relative significance of each threatening process will need to be regularly assessed to ensure that resources are continually focused on the highest priorities.

Further details concerning the monitoring program are provided in the Monitoring Chapter of the CKPoM Resource Document.



15.2 Actions

Koala Habitat Monitoring

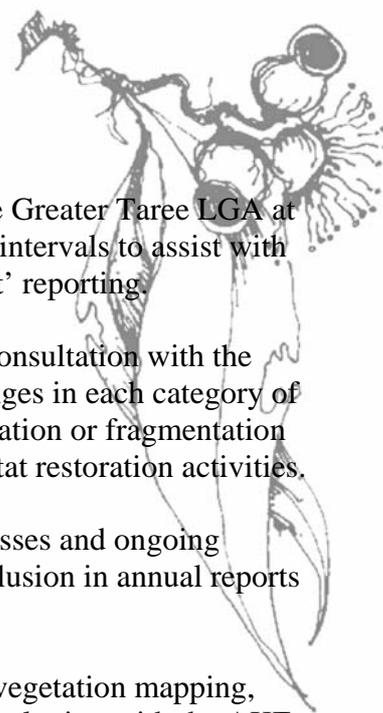
- i) Council purchase the latest available satellite imagery for the Greater Taree LGA at yearly intervals and new air photograph coverage at 4-yearly intervals to assist with annual reviews of the CKPoM and 'State of the Environment' reporting.
- ii) Council interpret the above-mentioned images annually, in consultation with the Australian Koala Foundation (AKF), to identify precise changes in each category of Koala habitat resulting from incremental habitat loss, degradation or fragmentation within the LGA and over the longer term, with ongoing habitat restoration activities.
- iii) Council maintain a detailed register of incremental habitat losses and ongoing habitat restoration activities as identified in ii) above, for inclusion in annual reports to the CKPoM Implementation Committee.
- iv) Council maintain a register of potential discrepancies in the vegetation mapping, investigate these and make revisions where necessary in consultation with the AKF.
- v) AKF revise the Koala habitat mapping in conjunction with future refinements to the vegetation mapping, on a consultancy basis for Council.

Koala Population Monitoring

- vi) Council co-ordinate an annual phone-in census in conjunction with the Koala Preservation Society of NSW Inc. on a designated weekend each spring.
- vii) Council co-ordinate annual transect-based Koala searches of designated sites.
- viii) Council, together with the Koala Preservation Society of NSW Inc., maintain a Koala records database that will contribute to the LGA-wide monitoring program.
- ix) Council establish and annually assess a series of monitoring sites within the LGA using the AKF Spot Assessment Technique (Phillips & Callaghan 1995; Phillips & Callaghan submitted).

Threatening Processes

- x) Council, together with the Koala Preservation Society of NSW Inc., maintain a register of dog attacks and traffic collisions with Koalas.
- xi) Council provide a Dog Catcher to respond to reports of feral or roaming domestic dogs on the day of the annual phone in census.



Funding

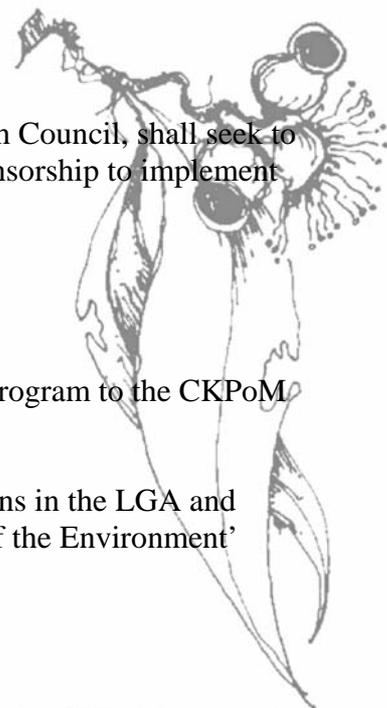
- xii) The CKPoM Implementation Committee, in conjunction with Council, shall seek to acquire the necessary funding, assistance, resources and sponsorship to implement the monitoring program.

Reporting

- xiii) Council present annual findings of the ongoing monitoring program to the CKPoM Implementation Committee.
- xiv) Council incorporate updates on the status of Koala populations in the LGA and actions taken to implement the CKPoM, into annual 'State of the Environment' reporting.

Review and Amendment

- xv) The CKPoM Implementation Committee should fully review the CKPoM every 12 months. This will include reviewing the Performance Indicators, the monitoring program, the extent to which the proposed actions have been implemented, and their apparent effectiveness.
- xvi) Any proposed amendments to the CKPoM will be determined by the CKPoM Implementation Committee in consultation with the General Manager of Greater Taree City Council, the Australian Koala Foundation and the Director-General of NSW National Parks and Wildlife Service. Amendments to the CKPoM will require approval from both Council and Planning NSW before being formally adopted.



16 IMPLEMENTATION

16.1 Synopsis

The ongoing support and involvement of stakeholders will be vital throughout the implementation of the CKPoM. The CKPoM will particularly require the ongoing support of Greater Taree City Council, the National Parks and Wildlife Service, land management agencies, the Koala Preservation Society of NSW Inc. and the local community.

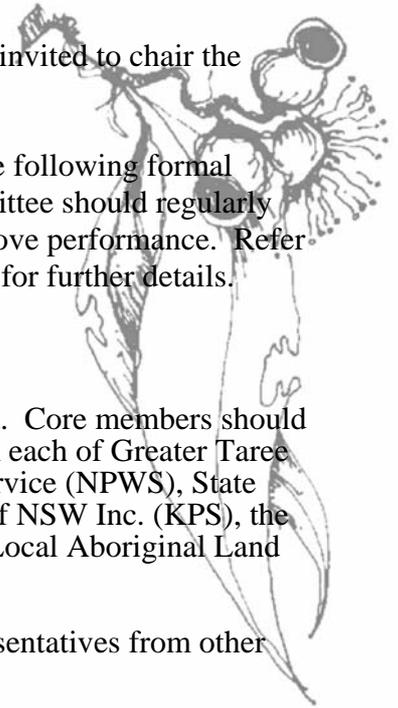
An Implementation Committee will be established under Section 377 of the *Local Government Act 1993* to oversee and co-ordinate implementation of the CKPoM. Core members of the CKPoM Implementation Committee should include representatives from Greater Taree City Council (GTCC), NSW National Parks and Wildlife Service (NPWS), State Forests of NSW (SFNSW), the Koala Preservation Society of NSW Inc. (KPS), the Department of Land and Water Conservation (DLWC), the Local Aboriginal Land Council

(LALC), and a community representative. A Councillor should be invited to chair the CKPoM Implementation Committee.

The Implementation Committee should convene as soon as possible following formal approval and adoption of the CKPoM. The Implementation Committee should regularly review the CKPoM and propose revisions where necessary to improve performance. Refer to the Implementation Chapter of the CKPoM Resource Document for further details.

16.2 Actions

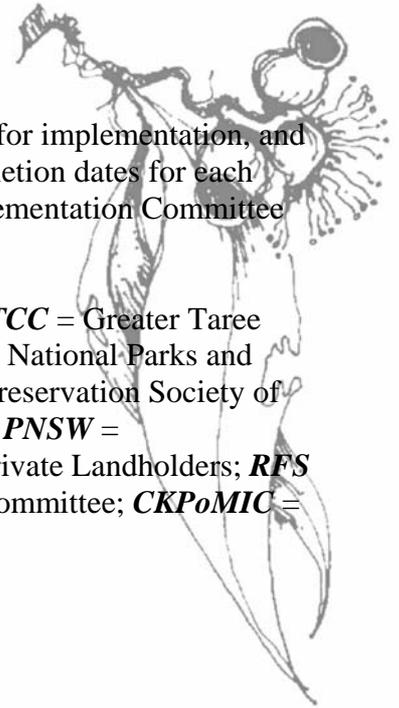
- i) A CKPoM Implementation Committee should be established. Core members should include a Councillor to chair the Committee, an Officer from each of Greater Taree City Council (GTCC), NSW National Parks and Wildlife Service (NPWS), State Forests of NSW (SFNSW), the Koala Preservation Society of NSW Inc. (KPS), the Department of Land and Water Conservation (DLWC), the Local Aboriginal Land Council (LALC), and a community representative.
- ii) The CKPoM Implementation Committee should invite representatives from other agencies and organisations to participate as required.
- iii) The CKPoM Implementation Committee should meet at least quarterly in the first year and as often as considered necessary by the Committee thereafter.
- iv) Greater Taree City Council shall provide the CKPoM Implementation Committee with necessary administrative support.
- v) The CKPoM Implementation Committee shall produce an Annual Report to address the following: progress with implementation of the CKPoM; outcomes from the monitoring program; apparent effectiveness of the CKPoM; current research projects; any recommended amendments to the CKPoM.
- vi) A full review of the performance of the CKPoM should be undertaken by Council and the Implementation Committee twelve months after adoption of the CKPoM. The Review Report should recommend any necessary amendments to the CKPoM and is to be submitted to the General Manager of Greater Taree City Council and the Director-General of PlanningNSW for consideration and public exhibition.



17 ACTION PLAN

The following Action Plan identifies the organisations responsible for implementation, and assigns an initial priority for each action. Appropriate target completion dates for each action should be determined as a first priority by the CKPoM Implementation Committee during their initial meetings.

The following abbreviations are used in the Action Plan (table): **GTCC** = Greater Taree City Council; **AKF** = Australian Koala Foundation; **NPWS** = NSW National Parks and Wildlife Service; **SFNSW** = State Forests of NSW; **KPS** = Koala Preservation Society of NSW Inc.; **DLWC** = Department of Land and Water Conservation; **PNSW** = PlanningNSW; **LALC** = Local Aboriginal Land Council; **PLH** = Private Landholders; **RFS** = NSW Rural Fire Service; **FAMC** = Feral Animal Management Committee; **CKPoMIC** = CKPoM Implementation Committee.



| Chapter | Action | Responsible Organisation | Priority | Completion Date |
|----------|---|--------------------------|----------|-----------------------------|
| 4 | Habitat Conservation | | | |
| i | Amend the <i>Greater Taree Local Environmental Plan (LEP) 1995</i> by way of an amending LEP (as per Appendix 1), to activate the provisions of the CKPoM including the performance standards for assessment of rezoning proposals and development applications, and the Guidelines for Koala Habitat Assessment. The amending LEP will prohibit or restrict <i>developments</i> or <i>activities</i> involving clearing, subdivisions, or intensification of landuse zonings within specified Classes of Koala Habitat in accordance with the performance standards in the CKPoM, whilst seeking to protect Preferred Koala Food Trees wherever they occur in the LGA. | GTCC | H | |
| ii | Instigate a program to systematically assess Class 3 Koala habitat throughout the LGA for evidence of Koala Activity, commencing within the identified Priority Conservation Precinct. | GTCC | H | Ongoing |
| iii | Undertake annual upgrades of Class 3 Koala habitat areas discovered to contain evidence of Koala Activity, to Class 2 Koala habitat. | GTCC | H | Annually |
| iv | Amend the objectives for the Environmental Protection (Habitat) Zone as contained within the <i>Greater Taree Local Environmental Plan (LEP) 1995</i> as proposed in Appendix 2. | GTCC | H | |
| v | Amend the <i>Greater Taree Local Environmental Plan (LEP) 1995</i> to explicitly prohibit land clearing or tree removal within lands zoned 7 (a) Environmental Protection (Habitat) Zone. | GTCC | H | |
| vi | Consult with public authorities to seek their support for rezoning public lands containing Primary, Secondary or Tertiary Koala Habitat to Environmental Protection (Habitat) Zone. | GTCC | M | |
| vii | Investigate the potential introduction of incentive-based measures to encourage voluntary conservation, management and restoration (where appropriate) of Koala habitat on private property. This should involve consultation with property owners to identify incentives that would be both feasible for Council and attractive for landholders. | GTCC | H | |
| viii | Investigate, prepare and implement a community consultation and promotion strategy to seek support for Voluntary Conservation Zoning of additional private property containing Primary, Secondary or Tertiary Koala Habitat to Environmental Protection (Habitat) Zone. This should be undertaken in conjunction with suitable incentives schemes for landholders. | GTCC | M | |
| ix | In liaison with the KPS, NPWS and AKF, prepare specific management and community education strategies to minimise threats to Koalas and Koala habitat in the Taree and Hallidays Point areas, if the first monitoring report indicates the need for finer-scale management. | GTCC | M | Following Monitoring Report |
| x | Council prepare a <i>Code of Logging Practice</i> consistent with the provisions of this CKPoM. | GTCC | H | |
| xi | Council demonstrate best-practice management of Koala habitat in conjunction with Council development and land management activities. | GTCC | H | Ongoing |
| xii | Investigate and negotiate potential Conservation Agreements and Wildlife Refuges. | NPWS | M | Ongoing |

| Chapter | Action | Responsible Organisation | Priority | Completion Date |
|----------|--|--------------------------|----------|-----------------|
| xiii | Investigate and, if appropriate, promote nomination of significant Koala habitat for addition to the Register of the National Estate. | NPWS | M | |
| xiv | Incorporate relevant findings and strategies from the Greater Taree CKPoM into the finalisation and implementation of the state-wide Koala Recovery Plan, currently in preparation under the <i>Threatened Species Conservation Act 1995</i> . | NPWS | H | |
| xv | Incorporate relevant findings and strategies from the Greater Taree CKPoM into forest management and harvesting protocols wherever appropriate. | SFNSW | H | Ongoing |
| xvi | Incorporate relevant findings and strategies from the Greater Taree CKPoM into the finalisation and implementation of the Manning Regional Vegetation Management Plan, currently in preparation under the <i>Native Vegetation Conservation Act 1997</i> . | DLWC | H | |
| xvii | <i>Undertake assessments of applications to remove native vegetation from rural lands within the Greater Taree LGA in accordance with the Guidelines for Koala Habitat Assessment.</i> | DLWC | H | Ongoing |
| xviii | Include identified Koala habitat in the Greater Taree LGA within future Regional Environmental Planning Programs in consultation with the Greater Taree City Council. | PNSW | H | Ongoing |
| xix | Conserve and manage Koala habitat on private lands wherever possible. | PLH | H | Ongoing |
| xx | Restore areas of former Koala habitat on private lands wherever possible. | PLH | H | Ongoing |
| xxi | Ensure appropriate procedures and consultation have been undertaken prior to commencing any development or activity likely to effect the environment of Koalas on private land. | PLH | H | Ongoing |
| 5 | Development Assessment | | | |
| i | Adopt and apply performance standards for assessment of rezoning proposals. | GTCC | H | Ongoing |
| ii | Adopt and apply performance standards for assessment of development applications. | GTCC | H | Ongoing |
| iii | Adopt and promote the Guidelines for Koala Habitat Assessment. | GTCC | H | Ongoing |
| iv | Include information regarding the presence of Koala habitat on section 149 certificates. | GTCC | H | Ongoing |
| v | Provide a Koala Assessment Accreditation Program and maintain a register of persons who have successfully completed the program. | GTCC | H | |
| 6 | Habitat Restoration | | | |
| i | Identify and prioritise Koala habitat areas for restoration. | GTCC | M | |
| ii | Prepare a 'Koala Habitat Restoration Plan' for the LGA based upon the list of priority areas. | GTCC | M | |
| iii | Determine budget and resource requirements, seek funding, and identify community and Landcare groups prepared to undertake Koala habitat restoration projects. | GTCC | M | |
| iv | Co-ordinate the overall Koala habitat restoration program.. | GTCC | M | Ongoing |
| v | Propagate nursery stock from local provenance seed harvested from trees utilised by Koalas. | GTCC | M | |

| Chapter | Action | Responsible Organisation | Priority | Completion Date |
|----------|--|--------------------------|----------|-----------------|
| 7 | Traffic Management | | | |
| i | Install 'Koala Fatality' signs and 'Injured Wildlife' signs at Koala Black Spot Areas. | GTCC | H | |
| ii | Impose a 60 km/hr speed limit (where the present limit is greater) in Black Spot Areas. | GTCC | M | |
| iii | Instigate a program of regular roadside slashing of grass at Black Spot Areas where this does not necessitate tree removal including regrowth. | GTCC | L | Ongoing |
| iv | Investigate the possible installation of street lighting in urban Black Spot Areas. | GTCC | L | |
| v | Investigate the possibility of providing a 1m wide painted strip (with rumble strips) across the roadway at the start and end of each designated Koala Black Spot Area to further alert drivers. | GTCC | H | |
| vi | Install 'Koala Warning' signs and 'Injured Wildlife' signs at Koala Conflict Areas. | GTCC | M | |
| vii | Impose an 80 km/hr speed limit (where the present limit is greater) in Conflict Areas. | GTCC | M | |
| viii | Instigate a program of regular roadside slashing of grass at Conflict Areas where this does not necessitate tree removal including regrowth. | GTCC | L | Ongoing |
| ix | Install 'Koala Warning' signs at each of the identified Potential Problem Areas. | GTCC | M | |
| x | Instigate a program of regular roadside slashing of grass at Potential Problem Areas where this does not necessitate tree removal including regrowth. | GTCC | L | Ongoing |
| 8 | Dog Management | | | |
| i | Where suitable evidence is available, prosecute the owner of any dogs that attack a Koala. | GTCC | H | Ongoing |
| ii | Invoke the 'dangerous dog provisions' of the <i>Companion Animals Act 1998</i> where a dog has attacked, killed or chased a Koala, on more than one occasion. | GTCC | H | Ongoing |
| iii | Dog Control Officers to conduct night patrols during Koala breeding season when possible. | GTCC | M | |
| iv | Media campaign to accompany night patrols in identified problem areas. | GTCC | H | |
| v | Develop suitable educational material to promote responsible dog ownership. | GTCC | H | |
| vi | Publicise any successful prosecutions of dog owners. | GTCC | M | Ongoing |
| vii | Ensure all designated off-leash dog exercise areas do not conflict with identified Koala habitat. | GTCC | H | |
| viii | Ensure effective signposting of all public reserves regarding dog exercise provisions. | GTCC | M | |
| ix | Designate public places with Primary or Secondary Habitat as 'Wildlife Protection Areas'. | GTCC | H | |
| x | Encourage owners to restrain their dogs if they become aware of the presence of a Koala on their property, until the Koala has left. | GTCC | H | |
| 9 | Feral Animal Management | | | |
| i | Establish a Feral Animal Management Committee (FAMC) or sub-committee. | GTCC | M | |
| ii | Develop and oversee implementation of a Feral Animal Management Plan. | FAMC & GTCC | M | |

| Chapter | Action | Responsible Organisation | Priority | Completion Date |
|-----------|---|----------------------------------|----------|-----------------|
| iii | Establish and promote a phone line for reporting of feral animals, and maintain a corresponding feral animals database linked to Council's GIS. | GTCC | M | |
| iv | Encourage and promote priority feral animal research projects. | FAMC | L | |
| v | Request reports of feral or roaming domestic dogs on the day of the Annual Koala Census. | GTCC | M | |
| 10 | Bushfires | | | |
| i | Ensure that Koalas and Koala habitat, including Primary and Secondary Koala Habitat, and vegetated Tertiary Koala Habitat (<i>i.e.</i> Habitat Buffers and Habitat Linking Areas), are considered in Bushfire Risk Management Plans and Plans of Operations. | GTCC | H | |
| ii | Land management agencies and NSW Rural Fire Service consult with NPWS regarding likely impact of hazard reduction activities on Koalas or Koala habitat. | Land Management Agencies and RFS | M | Ongoing |
| iii | Land management agencies and NSW Rural Fire Service co-operate with KPS and NPWS regarding fauna welfare issues following bushfires. | Land Management Agencies and RFS | H | Ongoing |
| iv | Land management agencies seek to ensure that hazard reduction burns in Koala habitat are maintained at low intensity. | Land Management Agencies and RFS | H | Ongoing |
| v | Encourage and promote research by postgraduate University students into potential longer term impacts of hazard reduction burning on Koala habitat. | GTCC | L | |
| vi | Utilise satellite imagery whenever possible as a means of mapping the extent and intensity of bushfires and monitoring post-fire regrowth. | GTCC | M | Ongoing |
| 11 | Koala Welfare | | | |
| i | Koala Preservation Society of NSW Inc. continue to maintain their database for Koala records within the Greater Taree LGA. | KPS | M | Ongoing |
| ii | Council continue to liaise with the Koala Preservation Society of NSW Inc. regarding access to their Koala records database. | GTCC/KPS | M | Ongoing |
| iii | Council will donate a property in the Kolodong Industrial Estate to the Koala Preservation Society of NSW Inc. for establishing a browse plantation to help feed Koalas in care, equipment storage, and possible development of pre-release enclosures. | GTCC | H | |
| 12 | Education | | | |
| i | Prepare an Information Brochure concerning the Greater Taree Koala population. | GTCC | M | |
| ii | Council liaise with KPS, NPWS and AKF to establish the feasibility of developing a Koala-based Environmental Education Program for local school and community groups. | GTCC | M | |
| iii | Council provide information concerning Koala conservation on Telephone Hold Recordings. | GTCC | L | |
| iv | Develop a program to ensure that Koala information is regularly provided to the local media. | GTCC | H | |

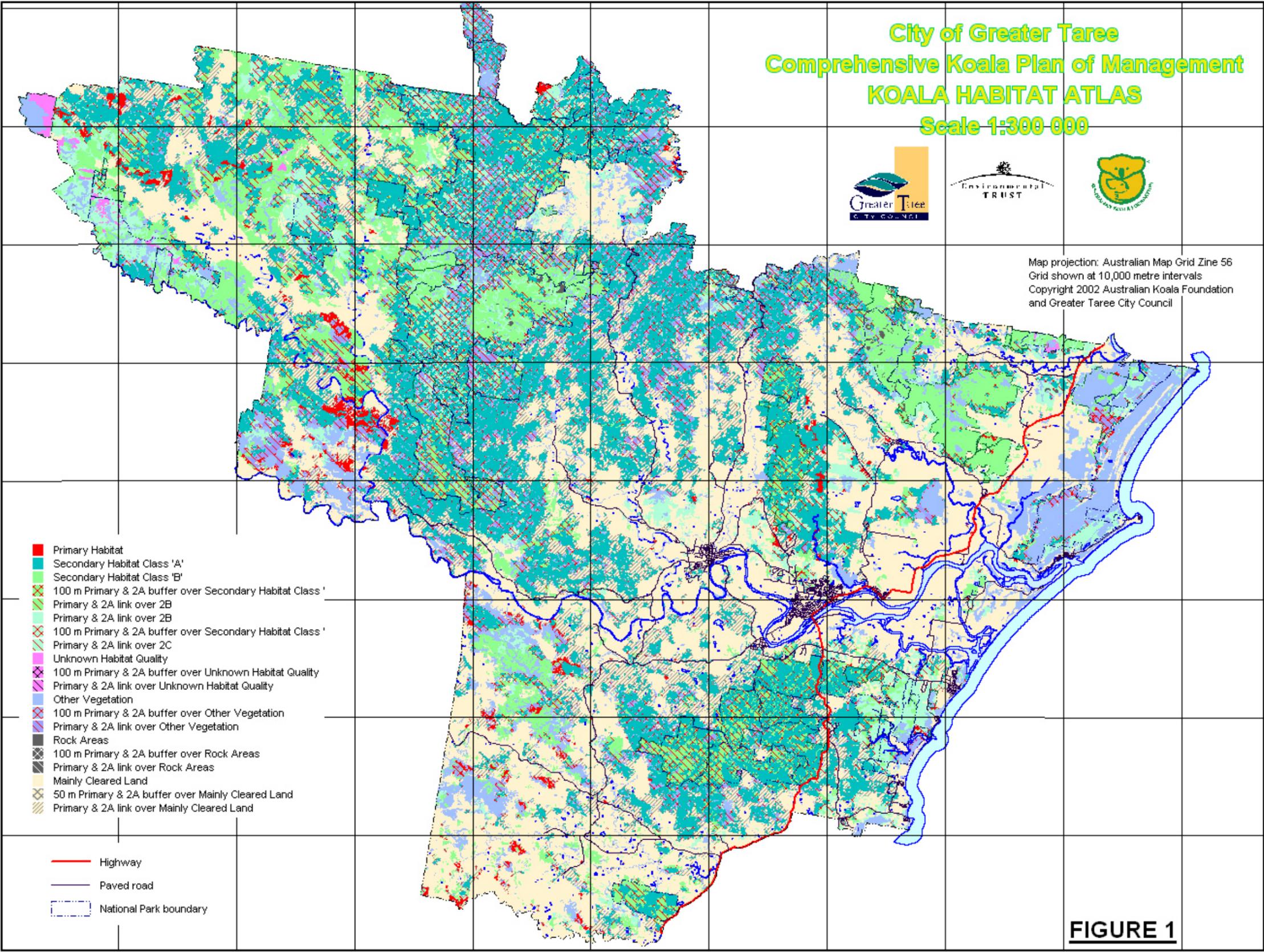
| Chapter | Action | Responsible Organisation | Priority | Completion Date |
|-----------|--|--------------------------|----------|-----------------|
| 13 | Funding | | | |
| i | Council make a submission to the Department of Local Government for a special variation to the general rate to fund components of the CKPoM and environmental management. | GTCC | H | |
| ii | Co-ordinate funding applications to implement CKPoM actions requiring financial input. | CKPoMIC & GTCC | H | |
| 14 | Research | | | |
| i | Identify and prioritise potential Koala research projects. | CKPoMIC | M | |
| ii | Maintain a register of completed, ongoing and proposed Koala research projects. | CKPoMIC | M | |
| iii | Liaise with those undertaking Koala research to facilitate involvement of volunteers. | CKPoMIC | L | |
| iv | Identify and promote potential final year or postgraduate University student research projects. | CKPoMIC | M | |
| v | Maintain a reference library of all reports concerning Koala research at Council Chambers. | CKPoMIC | M | |
| vi | Researchers, including post-graduate students, seek to make their research findings readily available, subject to intellectual property rights issues. | Koala Researchers | H | Ongoing |
| 15 | Monitoring | | | |
| i | Council purchase the latest available satellite imagery for the Greater Taree LGA at yearly intervals and new air photograph coverage at 4-yearly intervals. | GTCC | H | Ongoing |
| ii | Council interpret the satellite images annually in consultation with the AKF to identify changes in the extent of Koala habitat due to habitat clearance and habitat restoration activities. | GTCC | H | Ongoing |
| iii | Maintain a detailed register of incremental habitat losses and ongoing habitat restoration activities as identified in ii) above, for inclusion in annual reports to the CKPoM Implementation Committee. | GTCC | H | |
| iv | Maintain a register of potential discrepancies in the vegetation mapping, investigate these and make revisions where necessary in consultation with the AKF. | GTCC | H | |
| v | AKF revise the Koala habitat mapping in conjunction with alterations to the vegetation map, on a consultancy basis for Council. | GTCC & AKF | H | Ongoing |
| vi | Conduct an annual phone-in census on a designated weekend during Koala breeding season. | GTCC & UWSM | H | Annually |
| vii | Co-ordinate annual transect-based Koala searches of designated sites. | GTCC | H | Annually |
| viii | Maintain a database of reported Koala sightings in conjunction with the KPS. | GTCC & KPS | H | Annually |
| ix | Establish and annually assess a series of Koala faecal pellet-based monitoring sites within the LGA using the AKF Spot Assessment Technique (Phillips & Callaghan 1995; Phillips & Callaghan submitted). | GTCC | H | |
| x | Maintain a register of dog attacks and traffic collisions with Koalas. | GTCC & KPS | H | |

| Chapter | Action | Responsible Organisation | Priority | Completion Date |
|-----------|---|--------------------------|----------|-------------------------|
| xi | Provide a Dog Catcher to respond to reports of feral or roaming domestic dogs on the annual phone-in census day. | GTCC | M | Annually |
| xii | Seek the necessary funding, assistance, resources and sponsorship to implement the CKPoM monitoring program. | CKPoMIC & GTCC | H | |
| xiii | Present annual findings of the ongoing monitoring program to the CKPoMIC. | GTCC | H | Annually |
| xiv | Incorporate updates on the status of Koala populations in the LGA and actions taken to implement the CKPoM, into annual 'State of the Environment' reporting. | GTCC | H | Ongoing |
| xv | Review the CKPoM annually including the performance indicators, the monitoring program and the extent to which proposed actions have been implemented. | CKPoMIC | H | Annually |
| xvi | Determine any proposed amendments to the CKPoM in consultation with the General Manager of GTCC, the AKF and the Director-General of NPWS. Amendments to the CKPoM will require approval from both Council and PlanningNSW prior to adoption. | CKPoMIC | H | As Considered Necessary |
| 16 | Implementation | | | |
| i | Establish a CKPoM Implementation Committee. | GTCC | HH | |
| ii | The CKPoMIC invite representation from other agencies as required. | CKPoMIC | M | Ongoing |
| iii | CKPoM to meet at least quarterly in the first year and as often as necessary thereafter. | CKPoMIC | H | Ongoing |
| iv | Council to provide the CKPoMIC with administrative support. | GTCC | H | Ongoing |
| v | Produce a CKPoM Annual Report. | CKPoMIC | H | Annually |
| vi | Undertake a full review of the performance of the CKPoM 12 months after adoption. | GTCC & CKPoMIC | H | |
| | | | | |

City of Greater Taree
Comprehensive Koala Plan of Management
KOALA HABITAT ATLAS
Scale 1:300 000



Map projection: Australian Map Grid Zone 56
 Grid shown at 10,000 metre intervals
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 and Greater Taree City Council



- Primary Habitat
- Secondary Habitat Class 'A'
- Secondary Habitat Class 'B'
- 100 m Primary & 2A buffer over Secondary Habitat Class 'A'
- Primary & 2A link over 2B
- Primary & 2A link over 2B
- 100 m Primary & 2A buffer over Secondary Habitat Class 'B'
- Primary & 2A link over 2C
- Primary & 2A link over 2C
- Unknown Habitat Quality
- 100 m Primary & 2A buffer over Unknown Habitat Quality
- Primary & 2A link over Unknown Habitat Quality
- Other Vegetation
- 100 m Primary & 2A buffer over Other Vegetation
- Primary & 2A link over Other Vegetation
- Rock Areas
- 100 m Primary & 2A buffer over Rock Areas
- Primary & 2A link over Rock Areas
- Mainly Cleared Land
- 50 m Primary & 2A buffer over Mainly Cleared Land
- Primary & 2A link over Mainly Cleared Land

- Highway
- Paved road
- National Park boundary

FIGURE 1

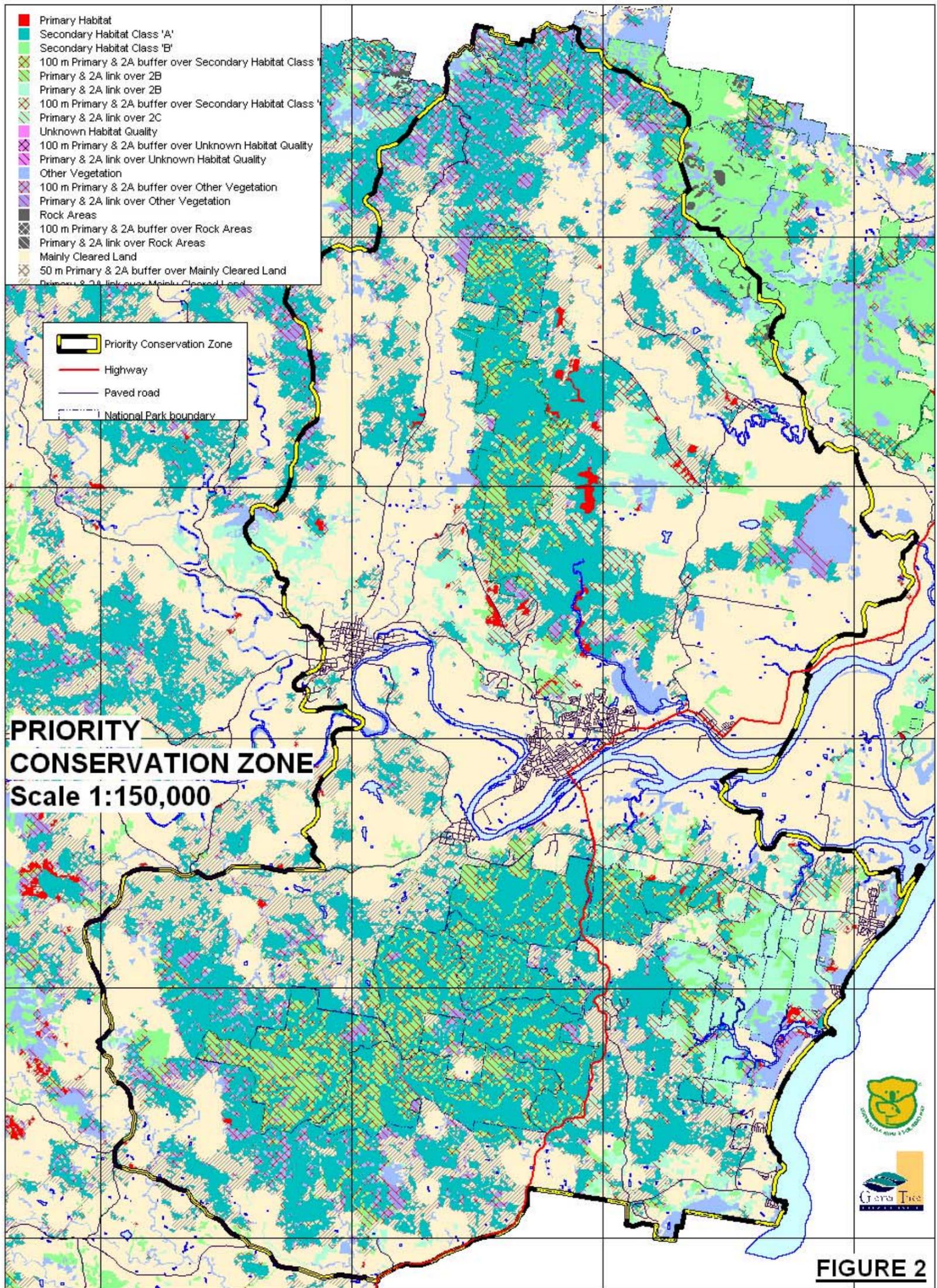
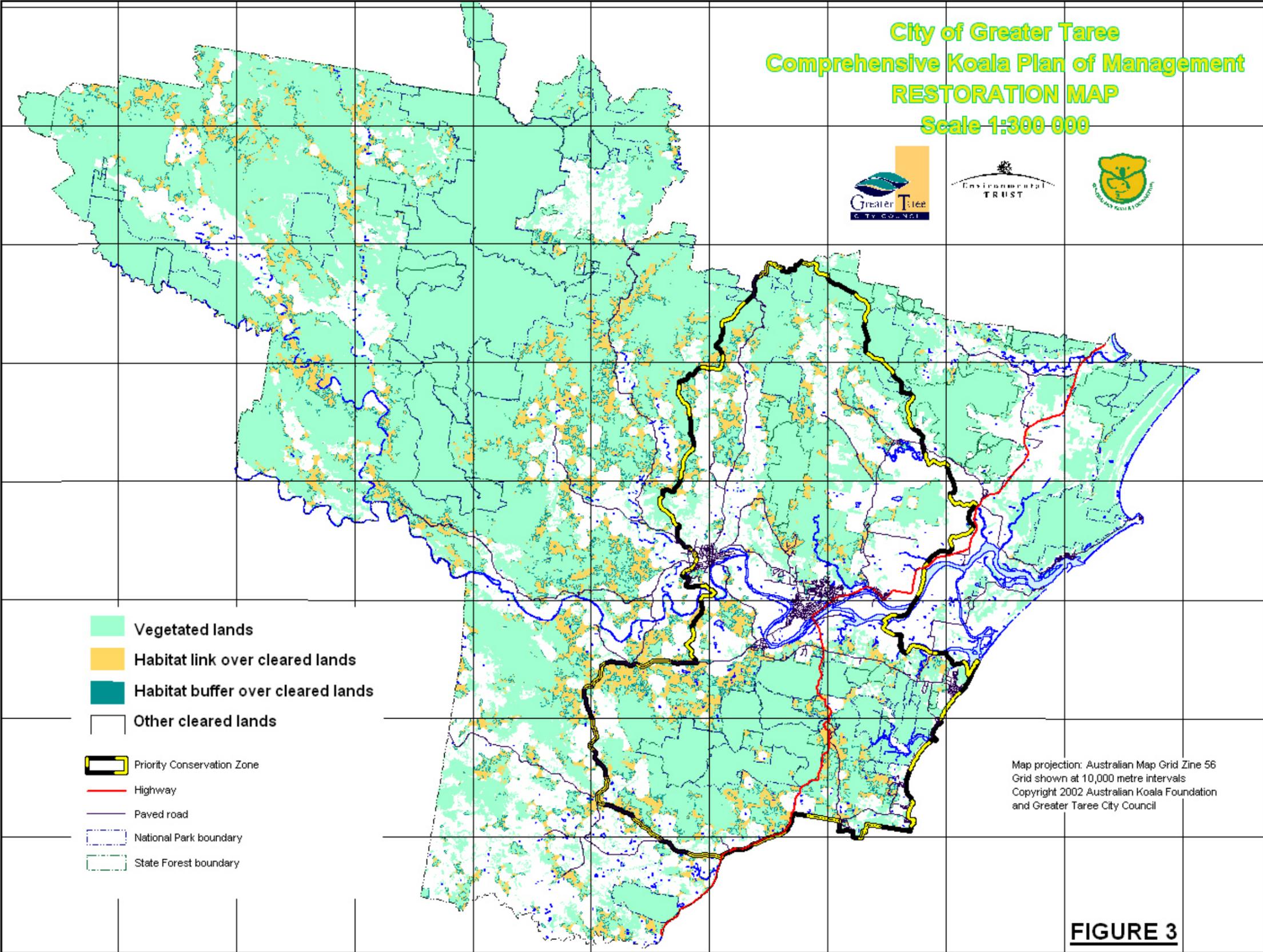


FIGURE 2

City of Greater Taree
Comprehensive Koala Plan of Management
RESTORATION MAP
Scale 1:300 000



-  Vegetated lands
-  Habitat link over cleared lands
-  Habitat buffer over cleared lands
-  Other cleared lands
-  Priority Conservation Zone
-  Highway
-  Paved road
-  National Park boundary
-  State Forest boundary

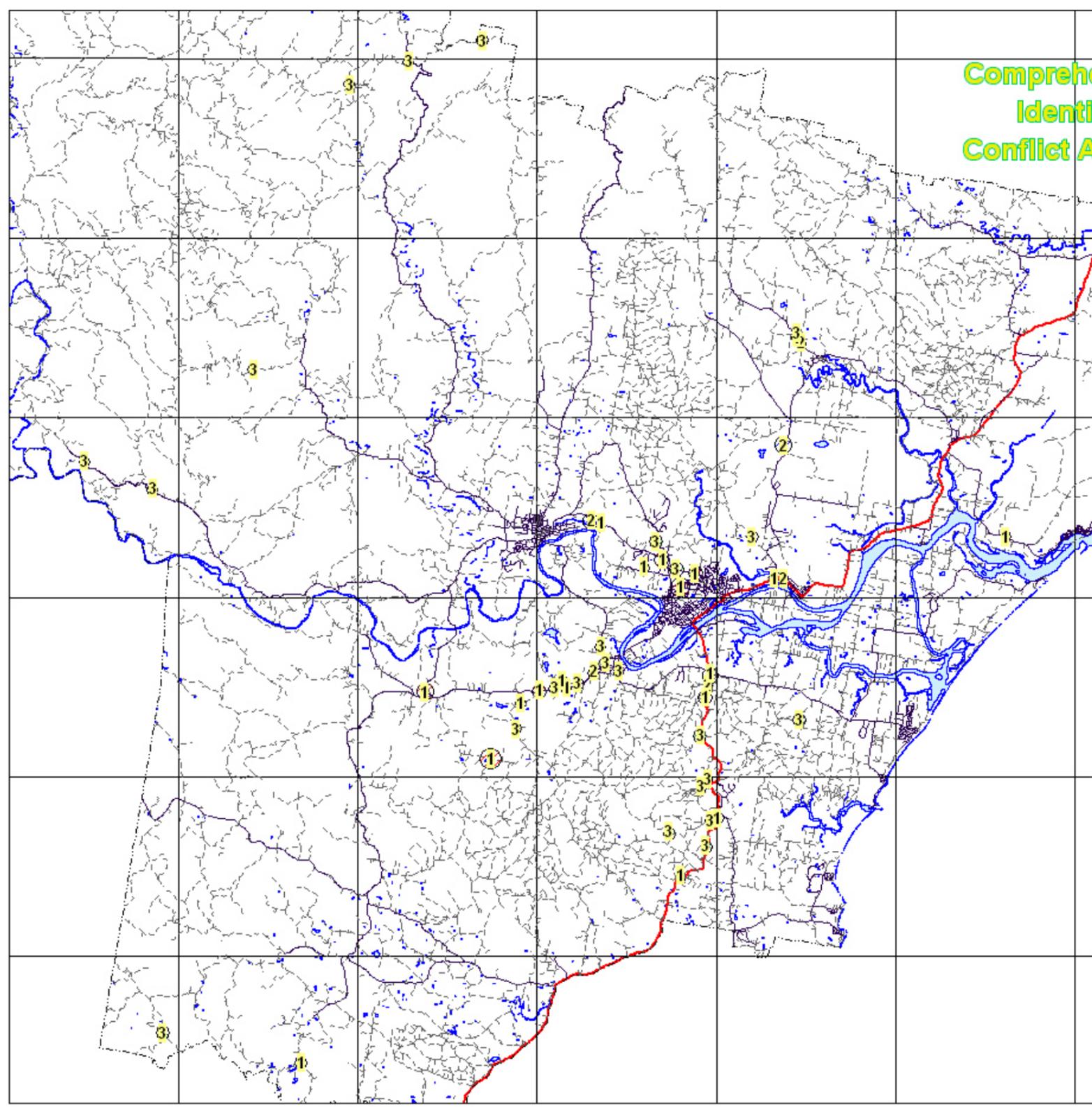
Map projection: Australian Map Grid Zone 56
Grid shown at 10,000 metre intervals
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FIGURE 3

**City of Greater Taree
Comprehensive Koala Plan of Management
Identified Koala Road Black Spots,
Conflict Areas and Potential Problem Areas
Scale 1:250 000**



Map projection: Australian Map Grid Zone 56
Grid shown at 10,000 metre intervals
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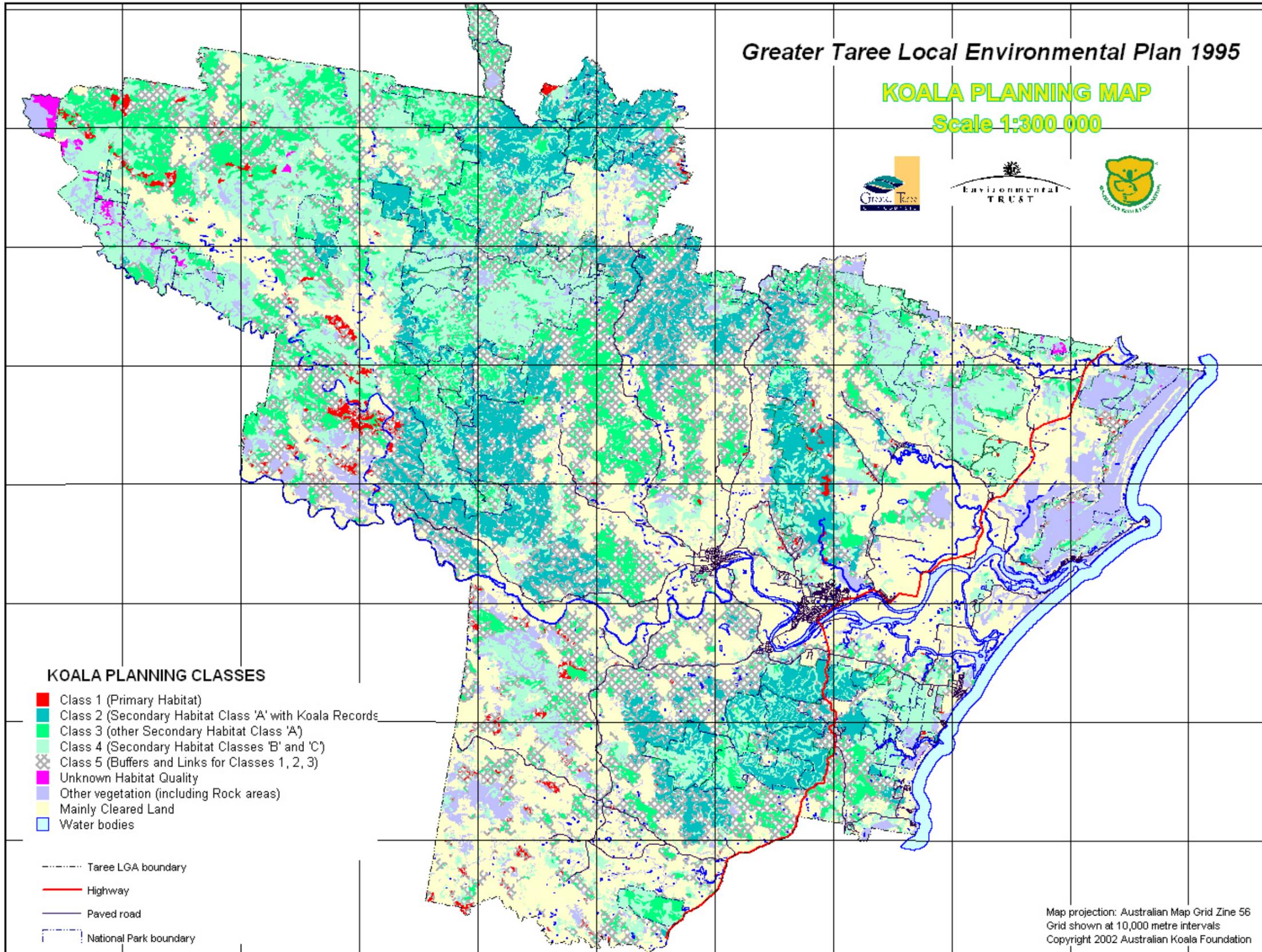


- 1** Black Spot
- 2** Conflict Area
- 3** Potential Problem Area
- Highway
- Paved Road
- Unpaved Road
- LGA Boundary
- Water Body

FIGURE 4

Greater Taree Local Environmental Plan 1995

KOALA PLANNING MAP
Scale 1:300 000



KOALA PLANNING CLASSES

-  Class 1 (Primary Habitat)
-  Class 2 (Secondary Habitat Class 'A' with Koala Records)
-  Class 3 (other Secondary Habitat Class 'A')
-  Class 4 (Secondary Habitat Classes 'B' and 'C')
-  Class 5 (Buffers and Links for Classes 1, 2, 3)
-  Unknown Habitat Quality
-  Other vegetation (including Rock areas)
-  Mainly Cleared Land
-  Water bodies

-  Taree LGA boundary
-  Highway
-  Paved road
-  National Park boundary

Map projection: Australian Map Grid Zone 56
Grid shown at 10,000 metre intervals
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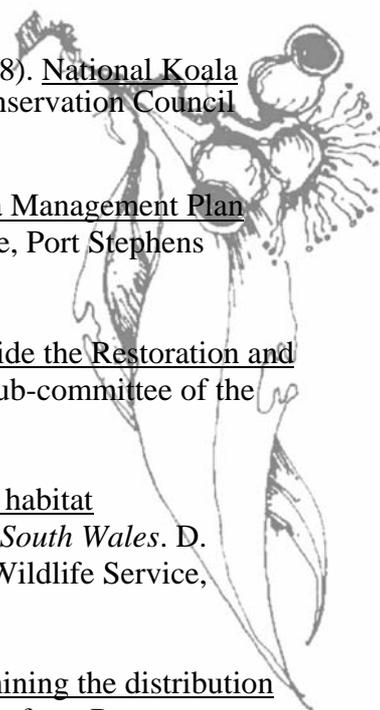
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Greater Taree City Council Comprehensive Koala Plan of Management
(Part 1: The CKPoM)

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Appendix 1

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979
GREATER TAREE LOCAL ENVIRONMENTAL PLAN 1995
(AMENDMENT No. 47)



I, the Minister for Planning, in pursuance of section 70 of the Environmental Planning and Assessment Act 1979, make the Local Environmental Plan set out below.
()

Sydney,

2002.

Minister for Planning

1 Citation

This plan is named Greater Taree Local Environmental Plan 1995 (Amendment No. 47) Comprehensive Koala Plan of Management.

2 Aims, objectives, etc.

This plan aims to provide for the long-term conservation of the local Koala population by protecting and restoring Koala Habitat by:

- a. activating the provisions and performance standards of the Greater Taree City Council Comprehensive Koala Plan of Management (CKPoM) for all development applications; and
- b. ensuring Local Environmental Plan Amendments for lands to which this plan applies must comply with the provisions of the CKPoM.
- c. Compliance with the CKPoM will constitute compliance with *State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)*.

3 Land to which this plan applies

This plan applies to all land within the Greater Taree Local Government Area classified as Class 1, 2, 3, 4 and 5 on the maps marked “*Greater Taree Local Environmental Plan 1995 Koala Planning Map*” deposited in the office of Greater Taree City Council. (Class 1 = Primary Koala Habitat from the CKPoM; Class 2 = Secondary A Koala Habitat *with* known Koala Activity; Class 3 = Secondary A Koala Habitat *without* known Koala Activity; Class 4 = Secondary B plus Secondary C Koala Habitat; Class 5 = Tertiary Koala Habitat comprised of Habitat Buffers and Habitat Linking Areas).

4 Amendment of other environmental planning instruments

This plan amends:

- (a) *Greater Taree Local Environmental Plan 1995* as set out in Schedule 1.

SCHEDULE 1 - Amendment of Greater Taree Local Environmental Plan 1995

[1] Clause 4 Definitions

Insert in clause 4(1) the following definitions in alphabetical order:

“**building envelope**” means an area of land including the area underlying dwelling construction, any land required to be cleared for bushfire protection in accordance with "Planning for Bushfire Protection" and land used as an access route to any building.

“**CKPoM**” means the Greater Taree City Council Comprehensive Koala Plan of Management” deposited in the office of Greater Taree City Council and dated XX December 2002

“**clearing**” means removal of native vegetation (including trees, understorey plants, groundcover, and plants occurring in a wetland) by:

- (a) cutting down, felling, thinning, logging or removing native vegetation, or
- (b) killing, destroying, poisoning, ringbarking, uprooting or burning, or
- (c) severing, topping or lopping branches, limbs, stems or trunks of native vegetation, or
- (d) substantially damaging or injuring native vegetation in any other way.

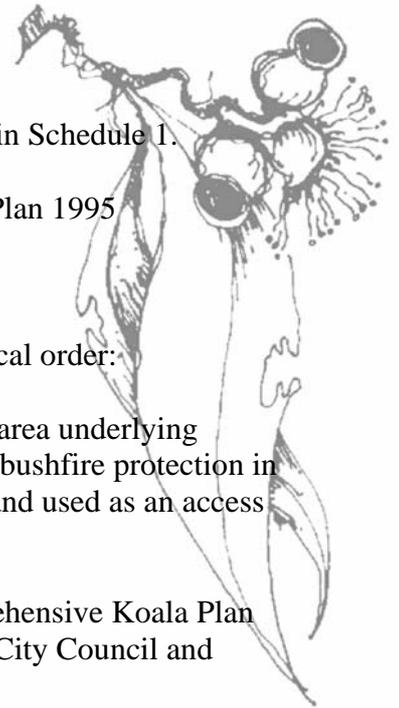
“**Koala use area**” means an area of contiguous vegetation (or a mapped vegetation unit) with confirmed Koala Activity as identified using the Guidelines for Koala Habitat Assessment contained in the CKPoM.

“**Koala Activity**” means one (1) or more reliable Koala records or sightings (either recent or historical), and/or koala faecal pellet evidence.

“**Koala Habitat**” means land identified on the Koala Planning Maps as Class 1, 2, 3, 4 and 5 Koala Habitat.

“**Koala Planning Maps**” means the series of maps marked “Greater Taree Local Environmental Plan 1995 (Amendment No 47) – Koala Planning Maps deposited in the Office of Greater Taree City Council.

“**native vegetation**” has the same meaning as in the *Native Vegetation Conservation Act 1997*.



“**Preferred Koala Food Tree**” means any tree of a species identified in the CKPoM as being preferred by Koalas within the Greater Taree LGA.

“**suitably qualified person**” means a person who has completed a Koala Assessment Accreditation Program under the supervision of Greater Taree City Council.

“**selective logging**” means the selective removal of trees consistent with the provisions of the CKPoM and a *Code of Logging Practice* to be prepared by Greater Taree City Council.

“**tree**” includes a sapling or a shrub, or scrub.

“**wetland**” includes any shallow body of water (such as a marsh, billabong, swamp or sedgeland) that is:

- (a) inundated cyclically, intermittently or permanently with water, and
- (b) vegetated with wetland plant communities.

[2] Insert in Clause 9:

- (r) Providing for the long-term survival of Koala populations within the Greater Taree LGA; and
- (s) Providing for the restoration, protection and rehabilitation of degraded Koala Habitat.

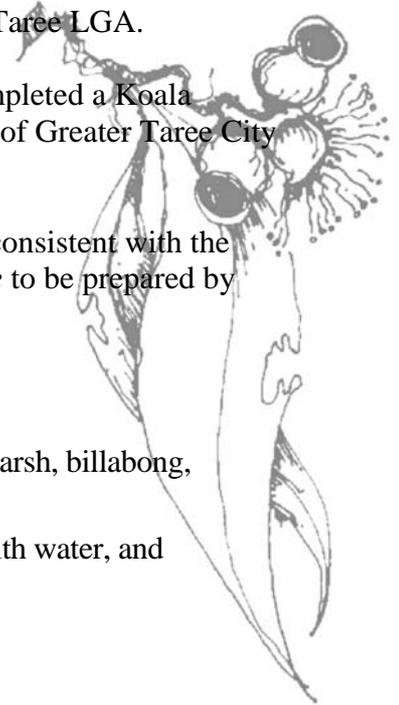
[3] Insert Clause 64 Koala Habitat Protection

(1) Restrictions on Clearing within Koala Habitat

Without the consent of Council a person must not undertake clearing or development of land described in the following table except as provided by the relevant subclauses.

(Note that other consent requirements under the Greater Taree Local Environmental Plan may apply.)

| Habitat Class | Restrictions |
|---------------|---|
| 1 | <ul style="list-style-type: none"> ❖ No clearing permissible. ❖ No intensification of landuse zoning or subdivision. |
| 2 | <ul style="list-style-type: none"> ❖ No clearing permissible other than Subclause 2(a). ❖ No removal of Preferred Koala Food Trees other than Subclause 2(a) or 2(e). ❖ No intensification of landuse zoning or subdivision. |
| 3 | <ul style="list-style-type: none"> ❖ Where Koala Activity is established, no clearing permissible other than Subclause 2(a). ❖ In areas of no Koala Activity then Subclause 2(f) applies. |



Greater Taree City Council Comprehensive Koala Plan of Management
(Part 1: The CKPoM)

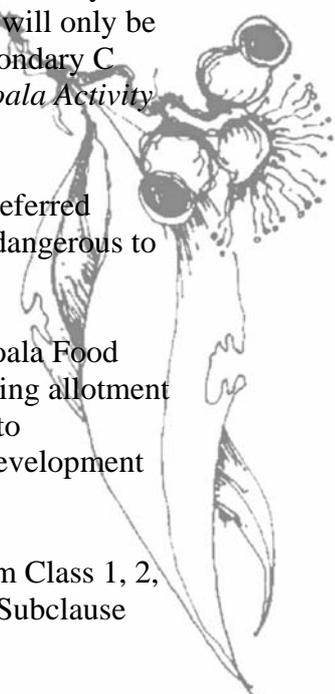
| | |
|----------|--|
| | <ul style="list-style-type: none"> ❖ Selective Logging permitted only <i>in non-Koala Use Areas</i>. ❖ No removal of Preferred Koala Food Trees other than Subclause 2(a), 2(d) or 2(e). ❖ No intensification of landuse zoning or subdivision. |
| 4 | <ul style="list-style-type: none"> ❖ Where Koala Activity is established, no clearing permissible other than Subclause 2(a). ❖ In areas of no Koala Activity then Subclause 2(f) applies. ❖ Selective Logging permitted only <i>where Koala Activity levels are less than 13.5%</i>. ❖ No removal of Preferred Koala Food Trees other than Subclause 2(a), 2(d) or 2(e). |
| 5 | <ul style="list-style-type: none"> ❖ Where Koala Activity is established, no clearing permissible other than Subclause 2(a). ❖ In areas of no Koala Activity then Subclause 2(f) applies. ❖ Selective Logging permitted only <i>where Koala Activity levels are less than 13.5%</i>. ❖ No removal of Preferred Koala Food Trees other than Subclause 2(a), 2(d) or 2(e). |

(2) Requirements for Consideration of Applications:

- a) Council may approve clearing within an existing allotment identified as Koala Habitat (other than Class 1) for the purposes of establishing a building envelope but only where the proponent can demonstrate that the Guidelines for Koala Habitat Assessment in the CKPoM have been used to determine the most appropriate location for the building envelope.
- b) Council may approve the subdivision of land identified as Koala Habitat (other than Class 1, 2 and 3), provided the proponent can demonstrate that the Guidelines for Koala Habitat Assessment in the CKPoM have been used to avoid impacts on Class 1, 2 and 3 Koala Habitat and that the proposal is consistent with the objectives of the CKPoM for Class 4 and 5 Koala Habitat.
- c) If Koala habitat is proposed for rezoning for development, Council must ensure that the draft local environmental plan complies with the Performance Standards for Rezoning Applications in the CKPoM.
- d) Council may approve the undertaking of Selective Logging (consistent with the provisions of the CKPoM and a *Code of Logging Practice* to be prepared by Greater Taree City Council) on land containing Class 3, 4 or 5 Koala Habitat, subject to outcomes from application of the Guidelines for Koala Habitat Assessment in the CKPoM.

Greater Taree City Council Comprehensive Koala Plan of Management
(Part 1: The CKPoM)

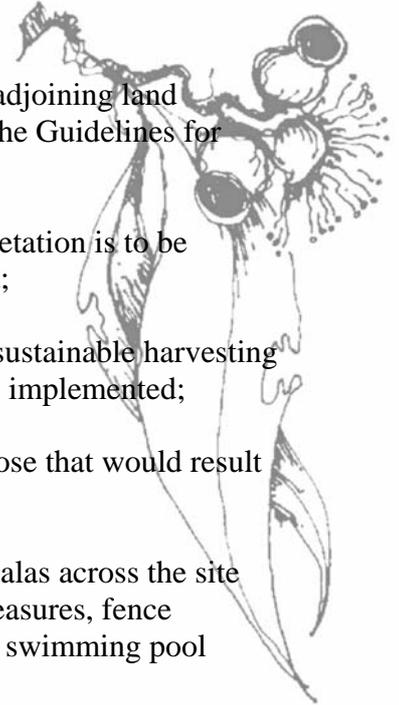
Selective Logging will not be permitted within Secondary A Koala Habitat in confirmed *Koala Use Areas* and will only be permitted within Secondary B Koala Habitat, Secondary C Koala Habitat or Tertiary Koala Habitat where *Koala Activity levels* are less than a 13.5% threshold.

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- e) Council may approve the removal or lopping of Preferred Koala Food Trees that are diseased or considered dangerous to persons or property.
 - f) Council may approve clearing of non-Preferred Koala Food Trees in areas of no Koala Activity within an existing allotment identified as Class 3, 4 or 5 Koala Habitat subject to compliance with the Performance Standards for Development Applications in the CKPoM.
 - g) No Preferred Koala Food Trees to be removed from Class 1, 2, 3, 4 or 5 Koala Habitat except in accordance with Subclause 2(a), Subclause 2(d) or Subclause 2(e).
 - h) No consent is required for:
 - i) Clearing carried out for bushfire control in accordance with the Manning Bushfire Risk Management Plan;
 - ii) Clearing undertaken within 6 metres of a boundary between land in separate ownership for the purpose of erecting a dividing fence;
 - iii) Clearing undertaken within 3 metres of a boundary between land in separate ownership for the purpose of conducting a land survey;
 - iv) Clearing of 3 non-Preferred Koala Food Trees per year on allotments in excess of 10 hectares; and
 - v) Activities undertaken in accordance with an approved Koala Environmental Management Plan, prepared in accordance with the CKPoM, will not be subject to the requirements of Clause 64.

The above exemptions do not negate the need to address other requirements that may apply under legislation such as the *Threatened Species Conservation Act 1995* and the *Native Vegetation Conservation Act 1997*.

(3) Council must not grant consent pursuant to Clause 2 unless it has considered:

- a) An assessment of Koala habitat on site and on adjoining land prepared by the proponent in accordance with the Guidelines for Koala Habitat Assessment in the CKPoM;
- b) Clear and precise details concerning which vegetation is to be cleared or disturbed and which is to be retained;
- c) Details of any proposed building envelopes or sustainable harvesting methods and the means by which they are to be implemented;
- d) Measures to restore Koala habitat, including those that would result in a net gain of Koala habitat over time;
- e) Measures to facilitate the safe movement of Koalas across the site including road designs and speed mitigation measures, fence construction details, landscaping proposals and swimming pool specifications;
- f) Proposed programs to monitor Koalas and Koala habitat, during and following the development activity. Monitoring programs are not required for single lot developments, but are to be submitted with all applications for subdivision of land affecting Koala Habitat;
- g) Measures to mitigate impacts on any Koalas occupying contiguous habitat areas; and
- h) Measures to mitigate the impact on Koalas from motor vehicles travelling to and from the site.



(4) Public authorities not excepted

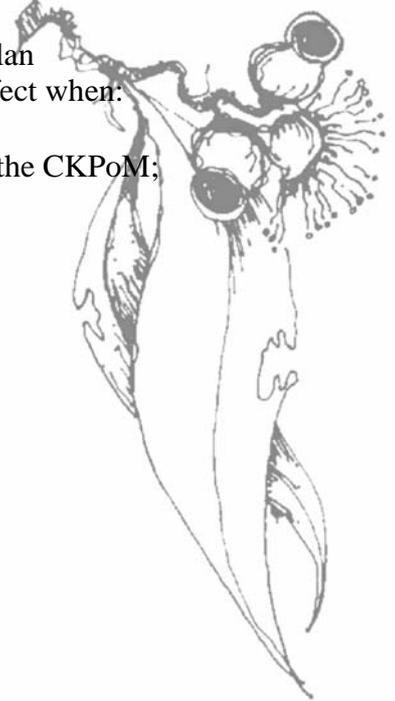
This clause requires consent for development to be carried out by all public authorities including Greater Taree City Council, except those carried out in response to an emergency despite:

- (a) Clause 7 and Schedule 3 to the Greater Taree LEP 1995; and
- (b) Clause 10 of *State Environmental Planning Policy No 4 – Development Without Consent*.

(5) Insert in Schedule 7 Environmental Management Plan

A site specific Koala Environmental Management Plan is an Environmental Management Plan that takes effect when:

- Prepared in accordance with the guidelines in the CKPoM;
- Publicly exhibited for at least 28 days;
- Approved by Council; and
- Adopted by Council.

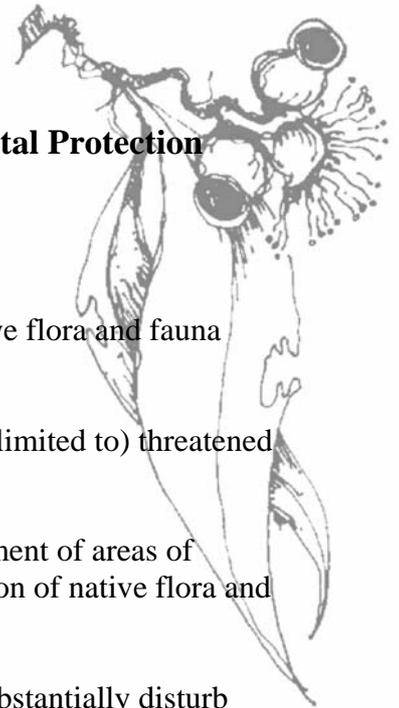


Appendix 2

Recommended Revised Objectives for 7(a) Environmental Protection (Habitat) Zone

The objectives of this zone are as follows:

- a) to protect the habitat of threatened or otherwise significant native flora and fauna species, including (but not limited to) Koalas;
- b) to protect biological diversity (biodiversity), including (but not limited to) threatened species, populations and ecological communities;
- c) to provide for the restoration and effective long-term management of areas of native vegetation and associated linking areas, for the protection of native flora and fauna species and the maintenance of biological diversity;
- d) to prohibit developments and activities that would destroy or substantially disturb native vegetation and/or the habitats of threatened or otherwise significant native flora and fauna species; and
- e) to limit developments and activities to those that are compatible with conservation of the natural environment and based upon the principles of ecological sustainability.



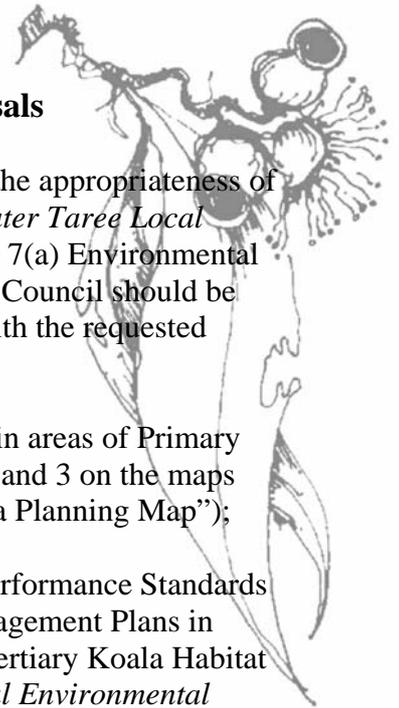
Appendix 3

Performance Standards for Rezoning Proposals

Consideration is to be given to the following matters when assessing the appropriateness of rezoning requests (here rezoning refers to any amendment to the *Greater Taree Local Environmental Plan 1995*), **other than** those that propose rezoning to 7(a) Environmental Protection (Habitat) Zone. Prior to approving any rezoning proposal, Council should be satisfied that possible future development or activity in accordance with the requested rezoning would:

- i) not allow for intensification of landuse, nor development within areas of Primary Koala Habitat or Secondary A Koala Habitat (*i.e.* Classes 1, 2 and 3 on the maps marked "*Greater Taree Local Environmental Plan 1995* Koala Planning Map");
- ii) allow for only *low impact development* (*i.e.* consistent with Performance Standards for Development Applications and Koala Environmental Management Plans in Appendix 4) within areas of Secondary B, Secondary C and Tertiary Koala Habitat (*i.e.* Classes 4 and 5 on the maps marked "*Greater Taree Local Environmental Plan 1995* Koala Planning Map");
- iii) be unlikely to result in the removal of any individuals of Preferred Koala Food Trees, wherever they occur on the site; and
- iv) not result in development which would sever Koala movement across the site. This should include consideration of the need for maximising tree retention and minimising the likelihood of impediments to safe/unrestricted Koala movement.

The required information to support a rezoning request must include an investigation of the site by a suitably qualified person in accordance with the Guidelines for Koala Habitat Assessment presented in Appendix 5 of this CKPoM.



Appendix 4

Performance Standards for Development Applications and Koala Environmental Management Plans

Regulation of development via the assessment of development applications or through the Environmental Management Plan (EMP) process represents an important means by which Koala habitat can be protected and effectively managed.

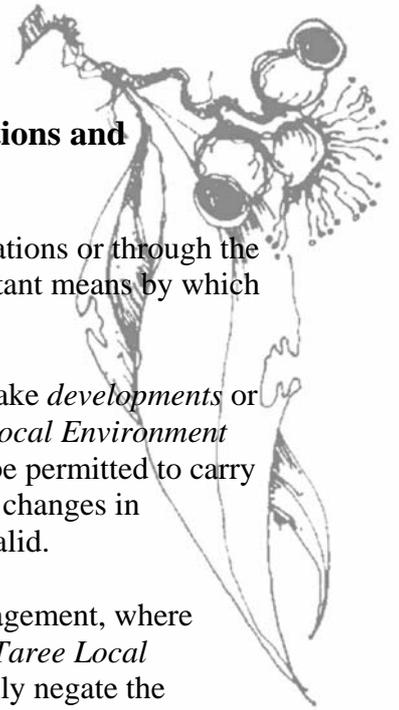
Development Applications can be made by persons wishing to undertake *developments* or *activities* that require consent under Clause 64 of the *Greater Taree Local Environment Plan 1995*. By gaining an approval from Council, the applicant will be permitted to carry out works in accordance with specified conditions of consent. Future changes in legislation do not affect an issued approval for as long as it remains valid.

For routine operations associated with ongoing farm or property management, where consent would otherwise be required in accordance with the *Greater Taree Local Environment Plan 1995*, Clause 64 provides a mechanism to potentially negate the requirement for development consent. This mechanism entails the preparation of approved Environmental Management Plans that are consistent with the following performance standards, but that provide more functional flexibility.

All development applications or Environmental Management Plans in the Greater Taree LGA will be required to comply with the following performance standards in order to comply with the CKPoM and *State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)*.

The aims and objectives of the performance standards are as follows:

- i) To ensure that the Koala population in the Greater Taree LGA is sustainable over the long-term.
- ii) To protect Koala habitat areas from developments that would compromise habitat quality or integrity.
- iii) To ensure that any development within or adjacent to Koala habitat areas occurs in an environmentally sensitive manner.
- iv) To ensure that acceptable levels of investigation are undertaken, considered and approved prior to any development in or adjacent to Koala habitat areas.
- v) To encourage Koala habitat restoration.
- vi) To maintain connectivity between areas of Primary and Secondary Koala Habitat and minimise threats to safe Koala movements between such areas.



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- vii) To ensure that development does not further fragment habitat areas either through the removal of habitat or habitat linking areas or through the imposition of significant threats to Koalas.
- viii) To provide guidelines and standards to minimise impacts on Koalas during and after development, and to include any monitoring requirements.
- ix) To provide readily understandable advice for proponents preparing Development Applications and for Council officers involved in the assessment of applications.

All Development Applications in the Greater Taree LGA must demonstrate that they are consistent with the above objectives. All subdivisions must demonstrate that their design is consistent with the above objectives.

The performance standards contained in this appendix require an understanding of Koala habitat types within the Greater Taree LGA. The distribution of the following habitat categories are shown on the CKPoM map entitled “Koala Habitat Atlas”. Hard copies of this map are available from Greater Taree City Council.

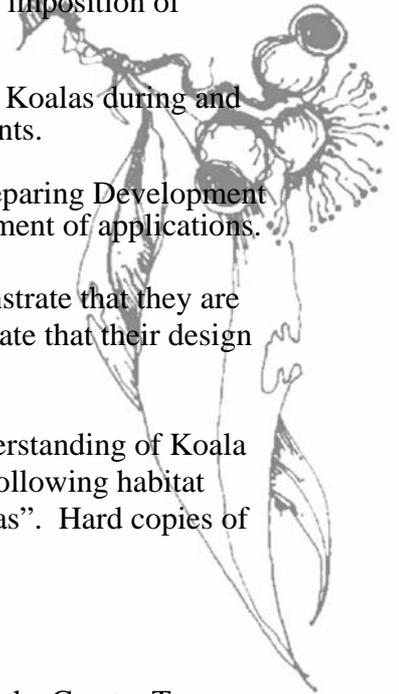
Koala Habitat Categories:

Primary Koala Habitat constitutes the top category of Koala habitat in the Greater Taree LGA and hence warrants the highest level of protection.

Secondary Koala Habitat is divided into three categories (Secondary A, Secondary B and Secondary C Koala Habitat) on the basis of decreasing proportional abundance of Preferred Koala Food Trees. Secondary Koala Habitat is vital for the long-term conservation of Koalas in the Greater Taree LGA. Secondary A Koala Habitat appears to sustain the greater part of the remaining Koala population within the LGA and therefore, together with Primary Koala Habitat, requires the highest level of protection. Secondary B and Secondary C Koala Habitat is also considered very important for conservation and recovery of the Koala population and requires protection, although with less restrictions on development than for Primary and Secondary A Koala Habitat.

Tertiary Koala Habitat consists of Habitat Buffers and Habitat Linking Areas involving all Primary and Secondary A Koala Habitat. Scattered Preferred Koala Food Trees may be present. Tertiary Koala Habitat requires protection and management through performance standards equivalent to those for Secondary B and Secondary C Koala Habitat.

Habitat Buffers contribute to the long-term survival of Primary and Secondary A Koala Habitat by ensuring that incompatible *development* or *activities* do not occur on immediately adjacent lands. Habitat Buffers afford protection to Koala habitat by minimising the detrimental impact of “edge effects” such as nutrient impacts, wind damage and weed invasion. Habitat Buffers also provide for the likely extension of significant Koala Activity beyond areas of Primary and Secondary A Koala Habitat. Even Habitat Buffers over Mainly Cleared Land containing only scattered trees can perform this latter function. Habitat Buffers should be considered for restoration projects where appropriate.



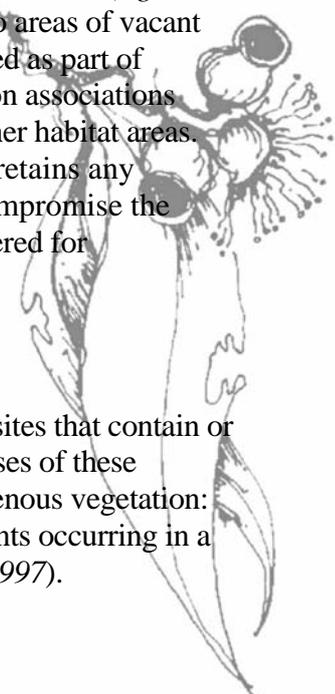
Habitat Linking Areas provide opportunities for the successful movement of Koalas (e.g. dispersal and recruitment of sub-adults) between breeding populations or into areas of vacant Primary or Secondary Koala Habitat. Habitat Linking Areas may also be used as part of established Koala home ranges, depending upon factors such as the vegetation associations and/or species of scattered trees they contain and their location relative to other habitat areas. Development may be permitted within Habitat Linking Areas provided it retains any scattered Preferred Koala Food Trees that may be present and does not compromise the safe use of such areas by Koalas. Habitat Linking Areas should be considered for restoration projects where appropriate.

Performance Standards:

The following standards apply to all *developments* or *activities* proposed on sites that contain or are adjacent to Primary, Secondary or Tertiary Koala Habitat. For the purposes of these standards, native vegetation is defined as any of the following types of indigenous vegetation: trees (including saplings and shrubs), understorey plants, groundcover or plants occurring in a wetland (as per sections 4 and 6 of the *Native Vegetation Conservation Act 1997*).

Proposed *development* or *activity* **must:**

- a) Not result in the removal or degradation of native vegetation within Primary or Secondary A Koala Habitat;
- b) Maximise retention and minimise degradation of native vegetation within Secondary B, Secondary C and Tertiary Koala Habitat;
- c) Not result in the removal of any individuals of Preferred Koala Food Trees, wherever they occur on a development site (other than in accordance with i) or j) below). In the Greater Taree LGA these tree species include: (Primary Species) Forest Red Gum *Eucalyptus tereticornis*, Tallowwood *E. microcorys*, and Swamp Mahogany *E. robusta*. (Secondary Species) Small-fruited Grey Gum *E. propinqua*, Grey Ironbarks *E. placeta/E. paniculata*, Ironbark *E. siderophloia*, and Thin-leaved Stringybark *E. eugenioides*. Additional tree species considered likely to be preferred by Koalas within the LGA include Cabbage Gum *E. amplifolia*, Ribbon Gums *E. viminalis/E. nobilis* and Messmate Stringybark *E. obliqua*. Collectively, these tree species constitute the Preferred Koala Food Trees for the LGA.
- d) Make provision, where appropriate, for restoration of Koala Habitat areas including Tertiary Koala Habitat over Mainly Cleared Land. In instances where Council approves the removal of Koala habitat (in accordance with **Council Waive Provisions** below), and where circumstances permit, this is to include measures which result in a “net gain” of Koala habitat on the site and/or adjacent land;
- e) Make provision for long term management and protection of Koala habitat including both existing and restored habitat;
- f) Not compromise the potential for safe movement of Koalas across the site. This should include maximising tree retention generally and minimising the likelihood

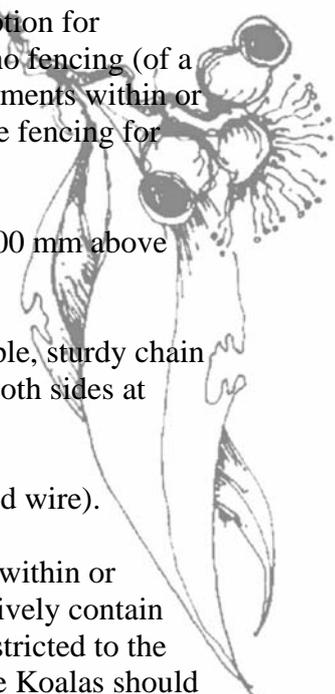


that the proposal would result in the creation of barriers to Koala movement, such as would be imposed by certain types of fencing. The preferred option for minimising restrictions to safe Koala movement is for there to be no fencing (of a sort that would preclude Koalas), associated with dog free developments within or adjacent to Primary, Secondary or Tertiary Koala Habitat. Suitable fencing for such areas could include:

- i) fences where the bottom of the fence is a minimum of 300 mm above ground level so as to allow Koalas to move underneath;
- ii) fences that facilitate easy climbing by Koalas; for example, sturdy chain mesh fences, or solid style fences with timber posts on both sides at regular intervals of approximately 20 m; or
- iii) open post and rail or post and wire (preferably not barbed wire).

However, where the keeping of domestic dogs has been permitted within or adjacent to Koala habitat areas, fencing of a type that would effectively contain dogs (and which would ideally also preclude Koalas) should be restricted to the designated building envelope. Fences that are intended to preclude Koalas should be located away from any trees that could allow Koalas to cross the fence.

- g) Be restricted to designated ‘building envelopes’ which contain all buildings and infrastructure. Generally there should be no clearing on the site outside these envelopes, other than that which may be required in accordance with the provisions of ‘Planning for Bushfire Protection’ (NSW Rural Fire Service & planningNSW 2001). In the case of applications for subdivision, such envelopes should be registered as a restriction on the title, pursuant to the *Conveyancing Act 1919*; and
- h) Include measures to effectively minimise the threat posed to Koalas by dogs, motor vehicles and swimming pools by adopting the following minimum standards.
 - i) The development must include measures that effectively abate the threat posed to Koalas by dogs through prohibitions or restrictions on dog ownership. Restrictions on title may be appropriate;
 - ii) The development must include measures that effectively minimise the threat posed to Koalas from traffic by restricting motor vehicle speeds where ever appropriate to 40 kph or less; and
 - iii) The development must reduce the risk of Koala mortality by drowning in backyard swimming pools. Appropriate measures could include: trailing a length of stout rope (minimum diameter of 50 mm) secured to a stable poolside fixture, in the swimming pool at all times; designing the pool in such a way that Koalas can readily escape; or enclosing the pool with a fence that precludes Koalas. This last option should include locating the



fence away from trees that Koalas could use to cross the fence.

- i) In the case of “Selective Logging” proposals (*not permitted within Primary or Secondary A Koala Habitat*), they be undertaken in accordance with the provisions of the CKPoM and a *Code of Logging Practice* (to be prepared by Greater Taree City Council) on land containing Class 3, 4 and 5 Koala Habitat, only where the proponent can demonstrate that the land does not consist of a “Koala Use Area” as determined using the Guidelines for Koala Habitat Assessment in the CKPoM. Applications must be accompanied by an assessment as per Section 6 of the Guidelines for Koala Habitat Assessment contained in Appendix 5 of the CKPoM.
- j) Council may approve the removal or lopping of Preferred Koala Food Trees that are diseased or considered dangerous to persons or property.

Council Waive Provisions

Council may decide to waive the provisions of a), b) and c) above (except for Primary Koala Habitat) **only** for the purposes of establishing a building envelope and associated works, and **only if** the proponent can demonstrate that:

1. The building envelope and associated works **cannot** be located so as to avoid the removal of native vegetation or the removal of Preferred Koala Food Trees;
2. The location of the building envelope and associated works **minimises** the need to remove vegetation as per 1 above;
3. In the case of subdivision proposals (not permitted within Primary or Secondary A Koala Habitat), that they are designed so as to **retain and enhance** Koala habitat on the site and are consistent with the objectives of this Appendix;
4. Koala survey standards as per Section 5 of the Guidelines for Koala Habitat Assessment in Appendix 5 of the CKPoM have been used to determine the most appropriate location for the building envelope and associated works (so as to minimise impacts on habitat and any Koalas that may utilise the site).

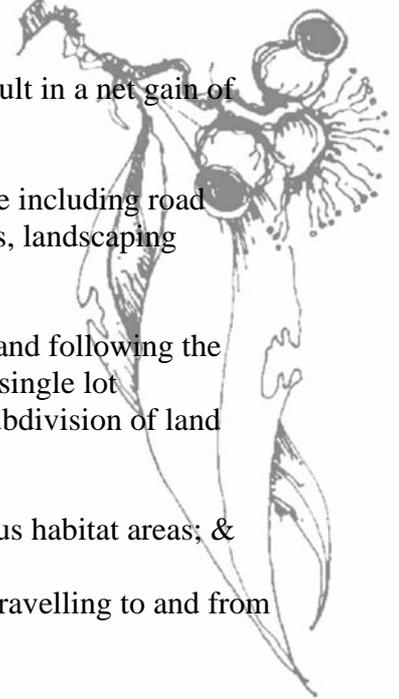
Information to Accompany Development Applications

The following information must be submitted with applications for development on **sites that contain** Primary, Secondary or Tertiary Koala Habitat.

- a. An assessment of Koala habitat, by a suitably qualified person, in accordance with the attached Guidelines for Koala Habitat Assessment (Appendix 5);
- b. Clear and precise details concerning which vegetation is to be cleared or disturbed and that which is to be retained;

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- c. Details of any proposed building envelopes or sustainable harvesting methods and the means by which they are to be implemented;
- d. Measures to restore Koala habitat, including those that would result in a net gain of Koala habitat over time;
- e. Measures to facilitate the safe movement of Koalas across the site including road designs and speed mitigation measures, fence construction details, landscaping proposals and swimming pool specifications;
- f. Proposed programs to monitor Koalas and Koala habitat, during and following the development activity. Monitoring programs are not required for single lot developments, but are to be submitted with all applications for subdivision of land affecting Koala Habitat;
- g. Measures to mitigate impacts on any Koalas occupying contiguous habitat areas; &
- h. Measures to mitigate the impact on Koalas from motor vehicles travelling to and from the site.



The following information must be submitted with applications for development on **sites adjacent to** Primary, Secondary or Tertiary Koala Habitat.

- a. Measures to mitigate the impacts of dogs on any Koalas that may occupy adjacent habitat. This should include such measures as education of dog owners, appropriate signs, or restrictions on dog ownership to reduce the likelihood of domestic dogs straying into adjacent Koala habitat.
- b. Measures to mitigate the impact on Koalas from motor vehicles travelling to the site. This should include appropriate traffic control measures on roads that run through or adjacent to nearby Koala habitat which would be subject to increased traffic volumes due to the development.

Appendix 5

Guidelines for Koala Habitat Assessment

The Guidelines for Koala Habitat Assessment in the Greater Taree LGA serve the following functions:

- provide the information necessary to support a rezoning proposal under Part 3 of the *Environmental Planning and Assessment Act 1979* (EP&A Act); and
- provide the information necessary to support a development application or selective logging application being considered under Part 4 of the EP&A Act.

In regard to the latter, application of these guidelines will also substantially contribute to consideration of the impact of a proposed development on Koalas or their habitat as required under s.5A of the EP&A Act.

The Guidelines for Koala Habitat Assessment **must** be carried out by a person or persons with qualifications and experience in tree species identification and, in the case of assessment of Koala habitat utilisation at Step 4, qualifications and experience in biological science and fauna survey. This should also include specific experience in conducting Koala surveys. A brief curriculum vitae for each person undertaking assessments according to these guidelines should be appended to the survey report.

Koala Habitat Assessment in the Greater Taree LGA should include the following steps as the minimum acceptable approach (see Figure A5.1 for a summary flow chart):

1. **Preliminary Assessment;**
2. **Vegetation Mapping;**
3. **Koala Habitat Identification; and**
4. **Assessment of the Proposal.**

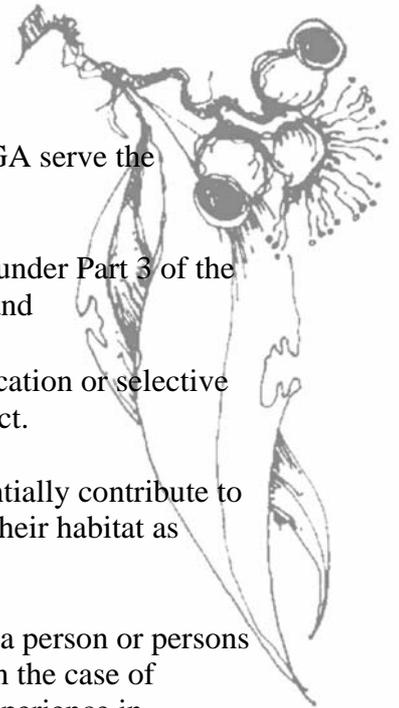
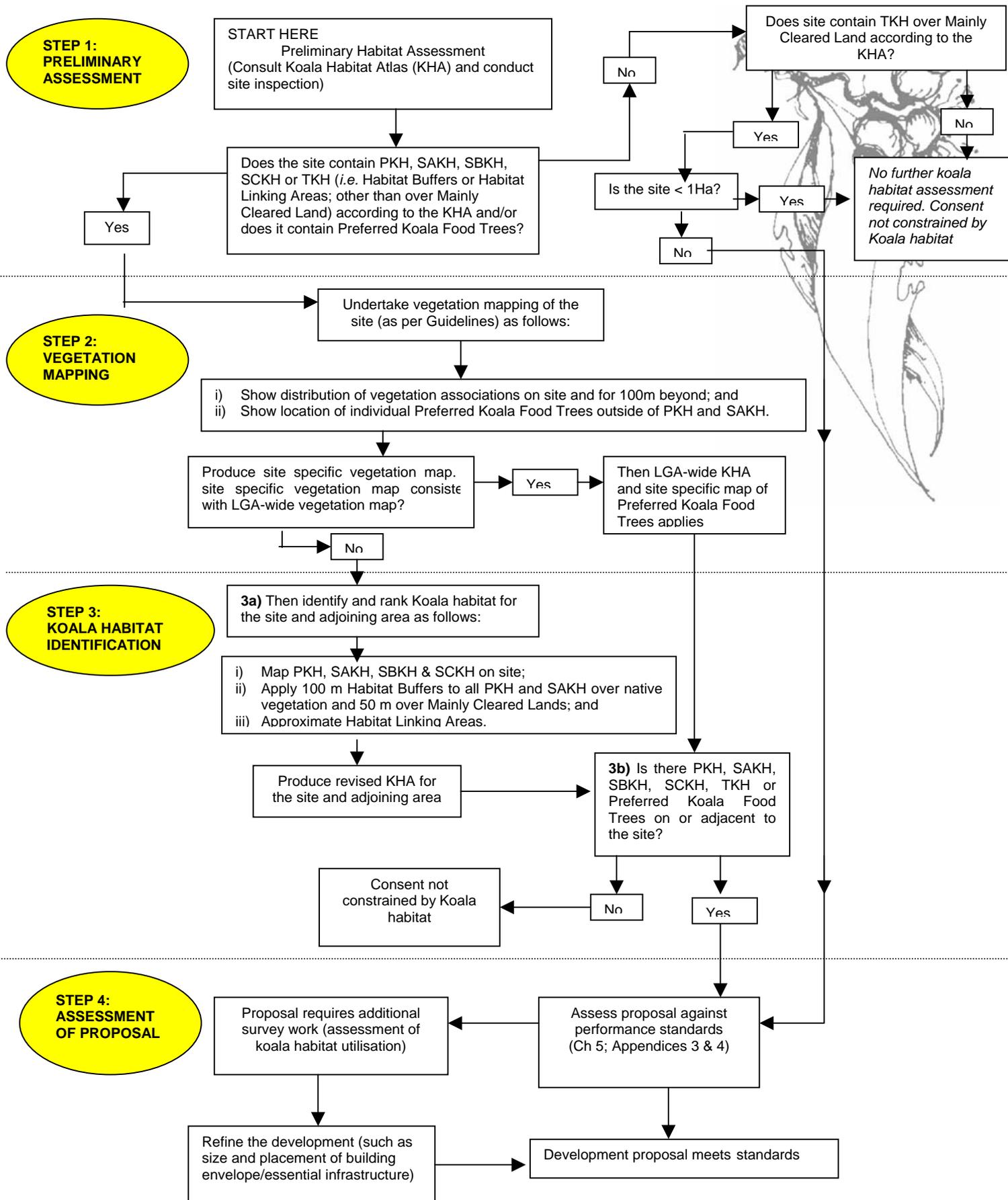


Figure A5.1. Flow chart outlining the procedure for undertaking Koala Habitat Assessments in the Greater Taree LGA. See text for a more detailed explanation. The following abbreviations are included in the flow chart: KHA=Koala Habitat Atlas; PKH=Primary Koala Habitat; SAKH=Secondary A Koala Habitat; SBKH=Secondary B Koala Habitat; SCKH=Secondary C Koala Habitat; TKH=Tertiary Koala Habitat (i.e. Habitat Buffers and Habitat Linking Areas); LGA=Local Government Area; DA=Development Application.



Preliminary Assessment must include the following:

- i) Reference to the Greater Taree Koala Habitat Atlas* (or excerpts thereof) to make a preliminary assessment of the Koala habitat on the site of the proposed development (hereafter referred to as the site) and to consider the Koala habitat of the site in the broader local (and regional) context; and
- ii) An inspection to determine whether the site contains individuals of Preferred Koala Food Trees outside areas mapped as Primary or Secondary A Koala Habitat.

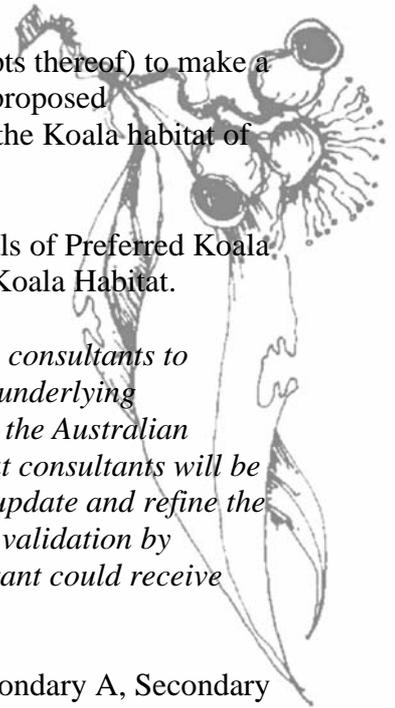
*(*Note: Data licensing agreements will be established to allow consultants to purchase relevant sections of the Koala Habitat Atlas and the underlying Vegetation Map for such purposes. This mapping is owned by the Australian Koala Foundation and Greater Taree City Council. Given that consultants will be requested to provide their site specific vegetation mapping to update and refine the LGA-wide Vegetation Map and Koala Habitat Atlas following validation by Council, a credit system may be established whereby a consultant could receive credit for contributing to refinement of the LGA-wide maps).*

From this it should be determined if the site contains Primary, Secondary A, Secondary B, Secondary C, or Tertiary Koala Habitat (*i.e.* Habitat Buffers and Habitat Linking Areas) other than those that overlap with Mainly Cleared Land, according to the LGA-wide Koala Habitat Atlas and/or if the site contains Preferred Koala Food Trees. If the site contains any of the above, it will be necessary to proceed to Step 2 Vegetation Mapping.

If the site only contains Tertiary Koala Habitat over Mainly Cleared Land according to the LGA-wide Koala Habitat Atlas and has an area of more than 1ha, or has, together with any adjoining land in the same ownership, an area of more than 1ha, then it will be necessary to proceed to Step 4 Assessment of the Proposal.

If the site **does not contain** any of the above mentioned habitat categories including Tertiary Koala Habitat over Mainly Cleared Land according to the Koala Habitat Atlas, or it does contain Tertiary Koala Habitat over Mainly Cleared Land but is less than 1 hectare in size, and does not contain Preferred Koala Food Trees, then no further Koala habitat assessment is required and consent for the proposed development (or rezoning) should not be withheld on Koala habitat grounds. A minimum area of 1 hectare is used to specify whether these guidelines apply to land designated Tertiary Koala Habitat over Mainly Cleared Land to preclude the need for Koala Habitat Assessments on small lots that have been developed previously.

A number of areas in the Greater Taree LGA that are currently zoned Residential, have already been built on and overlap with Tertiary Koala Habitat over Mainly Cleared Land. Whilst Koalas are capable of travelling considerable distances between trees and could potentially use Tertiary Koala Habitat over Mainly Cleared Land to move between patches of Primary or Secondary Koala Habitat, it is not considered practical to require landowners to undertake a Koala Habitat Assessment to accompany DAs that



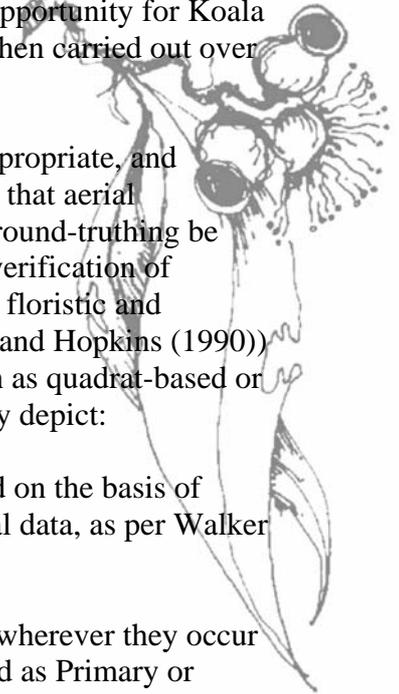
apply to small lots that have already been developed. Furthermore, while Tertiary Koala Habitat over Mainly Cleared Land represent an important opportunity for Koala habitat restoration projects, these are likely to be most effective when carried out over more substantial areas.

2. **Vegetation Mapping** should be undertaken at the largest scale appropriate, and presented in accompanying reports at A3 size. It is recommended that aerial photography (depending upon scale) complemented by detailed ground-truthing be used as a basis for such mapping. Ground-truthing must include verification of vegetation association boundaries, and systematic sampling of the floristic and structural characteristics (e.g. using methods specified by Walker and Hopkins (1990)) within each vegetation association using standard procedures such as quadrat-based or transect-based surveys. The vegetation mapping should accurately depict:
- i) The distribution of vegetation associations for the site (defined on the basis of floristic composition of the tallest stratum along with structural data, as per Walker and Hopkins 1990), plus a 100 m area around the site; and
 - ii) The location of all individuals of Preferred Koala Food Trees wherever they occur on the site, outside of vegetation associations already classified as Primary or Secondary A Koala Habitat. Primary Species: Forest Red Gum *Eucalyptus tereticornis*, Tallowwood *E. microcorys*, and Swamp Mahogany *E. robusta*. Secondary Species: Small-fruited Grey Gum *E. propinqua*, Grey Ironbarks *E. placeta/E. paniculata*, Ironbark *E. siderophloia*, and Thin-leaved Stringybark *E. eugenioides*. Additional tree species considered likely to be preferred by Koalas within the LGA include Cabbage Gum *E. amplifolia*, Ribbon Gums *E. viminalis/E. nobilis* and Messmate Stringybark *E. obliqua*. Collectively, these tree species constitute the Preferred Koala Food Trees for the Greater Taree LGA.

The boundaries of vegetation associations and the location of Preferred Koala Food Trees (outside of identified Primary and Secondary A Koala Habitat) are to be accurately surveyed in accordance with points i) and ii) above.

Once a site-specific Vegetation Map has been prepared in accordance with the above standards it should be compared to the LGA-wide Vegetation Map. If the site-specific Vegetation Map is consistent with the LGA-wide Vegetation Map (particularly as regards the mapping of vegetation associations that comprise Primary or Secondary Koala Habitat), then the LGA-wide Koala Habitat Atlas and the site-specific map of Preferred Koala Food Trees will apply for the assessment of the proposal (see Step 3b Koala Habitat Identification). If there are inconsistencies between the site-specific and LGA-wide Vegetation Maps, it will be necessary for the proponent to undertake the procedure for Koala Habitat Identification in Step 3a (i.e. production of a site-specific Habitat Map).

Because the LGA-wide Vegetation Map was prepared from 1:25 000 scale aerial photographs, there are limitations regarding accuracy for the purposes of development assessment for a specific site. Thus, it is likely that there will be a need to refine vegetation association boundaries when mapped at a larger scale in conjunction with



development assessments. In instances where the LGA-wide Vegetation Map has accurately identified the vegetation associations, but where there are inaccuracies regarding the location of vegetation association boundaries, it will be appropriate to proceed to Step 3b, provided any such inaccuracies are corrected. This must include surveying or mapping (using differential GPS) of any such boundaries.

Council staff also ask that consultants notify them of any suspected instances off-site where the LGA-wide Vegetation Map appears to be inaccurate (particularly where this could influence the location of Habitat Buffers and/or Habitat Linking Areas across a site), and to assess Koala habitat on the site accordingly.

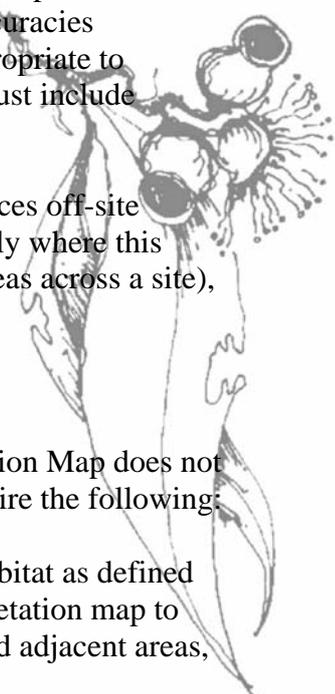
3. Koala Habitat Identification

3a) This step should be applied in instances where the LGA-wide Vegetation Map does not accurately describe the nature of the vegetation on the site. This will require the following:

- i) Application of the definitions of Primary and Secondary Koala Habitat as defined in chapters 4 and 5 of the CKPoM Resource Document, to the vegetation map to show the distribution of Koala habitat categories across the site and adjacent areas, where revisions were necessary;
- ii) Application of Habitat Buffers to all Primary and Secondary A Koala Habitat at a width of 100 m over areas of native vegetation and 50 m over Mainly Cleared Land. Habitat Buffers should be differentiated on the basis of the respective habitat category with which they overlap (*e.g.* Habitat Buffer over Secondary B or Secondary C Koala Habitat, or Habitat Buffer over Mainly Cleared Land); and
- iii) Approximation of Habitat Linking Areas between all patches of Primary and Secondary A Koala Habitat (as per the approach described in chapter 5 of the CKPoM Resource Document), where revision of the Koala Habitat Atlas has been necessary. Habitat Linking Areas should be differentiated on the basis of the habitat category with which they overlap. Alternately, site inspections and survey work (to identify areas that are either in use by Koalas or that are considered to have the potential to be effectively used by Koalas) could be applied to identify suitable site-specific Habitat Linking Areas.

After a site-specific Koala Habitat Atlas has been produced, proceed to Step 3b.

3b) This step should be applied after completing Step 3a or in instances where the LGA-wide Vegetation Map accurately describes the vegetation of the site (and where any inaccuracies regarding the location of vegetation association boundaries have been corrected). A site-specific map showing the location of individual Preferred Koala Food Trees, where they occur outside Primary and Secondary A Koala Habitat, is also required at this step. If the relevant Koala Habitat Atlas indicates there is either Primary, Secondary or Tertiary Koala Habitat on the site, or if the site-specific map indicates the presence of Preferred Koala Food Trees, proceed to Step 4 Assessment of Proposal. If none of the above occur on the site, then consent should not be withheld on Koala habitat grounds.



4. Assessment of the Proposal

The final step involves using the information produced from Steps 1 to 3 to assess the appropriateness of the proposal. This must involve reference to the Performance Standards for rezoning proposals and development applications as contained in Appendices 3 and 4. This step must also include a map showing the key elements of the proposal overlain on the Koala Habitat Atlas, as revised if necessary. The assessment should address the impacts of potential future development of the site in the broader context of a catchment area with an outer limit of 1 km beyond the site boundary, with particular reference to any areas of Primary, Secondary or Tertiary Koala Habitat shown on the Koala Habitat Atlas.

Rezoning requests must satisfy the performance standards specified in Appendix 3 of the CKPoM. Development applications must satisfy the performance standards specified in Appendix 4 of the CKPoM.

5. Locating a Suitable Building Envelope

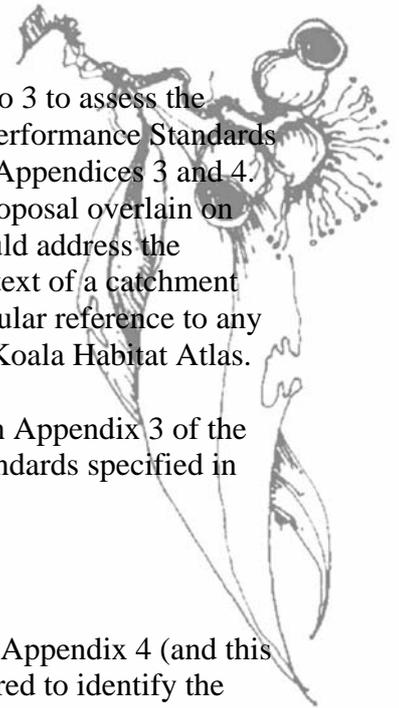
If an applicant requests that Council waive provisions a), b) and c) of Appendix 4 (and this is given approval), then the following additional survey work is required to identify the most suitable location for building envelopes and associated works.

An assessment of Koala habitat utilisation on the site must be undertaken by a suitably qualified person with experience in Koala surveys. A standard reportable survey technique that allows habitat utilisation by Koalas to be located and quantified, such as the AKF's faecal pellet-based 'Spot Assessment Technique' (Phillips & Callaghan 1995; Phillips & Callaghan submitted), should be employed to identify Koala Activity levels across the site. When using the AKF Spot Assessment Technique, the minimum density of spot assessment plots should be 1 plot per 1000m² of land that contains native trees within the areas where building envelopes and associated works could potentially be located. Plots sites should be located systematically using a grid approach, with precise locations for sites within grid cells selected to ensure maximum sampling of Preferred Koala Food Trees.

Wherever possible, building envelopes and associated works should be positioned away from areas that return evidence of Koala Activity. Where this is not possible, building envelopes and associated works should be positioned in areas that return the lowest Koala Activity levels.

6. Selective Logging Proposals

Assessments for Selective Logging proposals in areas of Secondary A Koala Habitat *without* Koala Activity, Secondary B Koala Habitat, Secondary C Koala Habitat or Tertiary Koala Habitat should comply with these Guidelines for Koala Habitat Assessment including the survey standards outlined above in Section 5. These guidelines and standards must be applied in order to identify any *Koala Use Areas* (as defined below) and *Koala Activity levels* (as defined below).



Selective Logging will not be permitted within Secondary A Koala Habitat in confirmed *Koala Use Areas* and will only be permitted within Secondary B Koala Habitat, Secondary C Koala Habitat or Tertiary Koala Habitat where *Koala Activity levels* are less than a 13.5% threshold.

7. Definitions:

Koala Activity

For the purposes of the above assessments “Koala Activity” means one (1) or more reliable Koala records or sightings (either recent or historical), and/or koala faecal pellet evidence.

Koala Activity Level

“Koala Activity level” means as defined in Phillips & Callaghan 1995; Phillips & Callaghan 2000; and Phillips & Callaghan submitted.

Koala Use Areas

A “Koala Use Area” includes any area of contiguous vegetation (or mapped vegetation unit) with confirmed Koala Activity.

