

**BOURNDA NATIONAL PARK AND BOURNDA NATURE RESERVE**  
**PLAN OF MANAGEMENT**

**NSW National Parks and Wildlife Service**

**September 2000**

*As amended in January 2014*

**This plan of management was adopted by the Minister for the Environment on 6 September 2000, with amendments adopted on 14 January 2014.**

**Acknowledgments:** This plan of management was prepared by staff of the Field Services Division and Eden District of the National Parks and Wildlife Service, with assistance from Southern Region specialist staff.

A large amount of information in the plan has been taken from the 1984 plan of management for Bournda State Recreation Area, which was based on a 1982 report to the Service by Forestry Technical Services Pty Ltd.

**NSW National Parks and Wildlife Service**

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## FOREWORD

Bournda National Park and Bournda Nature Reserve are located on the far south coast of NSW between Tathra and Merimbula, approximately 15 km southeast of Bega. Together they have an area of 8678 ha and protect a range of environments including coastal range, hills, plain, dissected plateau and estuaries.

The variety of habitats in the park and reserve has resulted in a diverse range of plant and animal communities and the area supports a number of rare, threatened and geographically significant species. Bournda is important for conservation in a region where extensive areas have been cleared for agriculture or residential development or have been disturbed by intensive logging operations.

The area protects a variety of Aboriginal sites and contains several historic features which illustrate the history of European settlement and use of the district.

The park's coastline is very attractive and in places spectacular, featuring beaches, cliffs, rocky bays and deep clefts.

The plan of management provides for protection of the natural and cultural heritage of the area, with emphasis on encouragement of regeneration of the forests to a condition similar to that prior to European settlement.

The beautiful landscape and opportunities for water based recreation attract large numbers of visitors to the park. Bournda has an important tourism, recreational and educational role in the district. Existing facilities will be maintained, apart from alterations to access in the Turingal Head and Kangarutha areas. Re-design of some existing facilities will be undertaken to improve their amenity or for environmental protection reasons.

High priority will be given to promotion of public understanding and appreciation of the natural and cultural values of the park and reserve. Additional interpretive information will be provided at locations in the park.

This plan of management establishes the scheme of operations for Bournda National Park and Bournda Nature Reserve. In accordance with the provisions of Section 75 and 76 of the *National Parks and Wildlife Act 1974* this plan of management is hereby adopted.

**Bob Debus**  
**Minister for the Environment**

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## 1. INTRODUCTION

The *National Parks and Wildlife Act 1974*, requires that a plan of management be prepared for each national park and nature reserve. A plan of management is a legal document that outlines how the area will be managed in the years ahead. The procedures for the adoption of a plan of management are specified in the Act and, for national parks, involve five stages:

- \* The Director-General gives notice that a plan of management has been prepared.
- \* The plan is placed on public exhibition for at least one month and any person may comment on it.
- \* The plan and copies of all representations are referred to the National Parks and Wildlife Advisory Council for consideration.
- \* The Director-General submits the plan, together with the recommendations of the Advisory Council, to the Minister.
- \* The Minister may adopt the plan after considering the recommendations of the Advisory Council or may refer the plan back to the Director-General and Council for further consideration.

Once a plan has been adopted by the Minister, no operations may be undertaken within the national park or nature reserve except in accordance with the plan.

Bournda National Park and Bournda Nature Reserve have been considered together in this plan of management as they form a contiguous area of reserved land and, while their purposes differ, they are jointly managed. This plan replaces an earlier plan of management for Bournda State Recreation Area which was adopted in March 1984.

A draft plan of management for Bournda National Park and Bournda Nature Reserve was placed on public exhibition from October 1988 to February 1999. During the period of public exhibition 35 representations were received which raised 19 issues. These representations were referred to the National Parks and Wildlife Advisory Council for review and report to the Minister. The comments and suggestions of the Advisory Council were in turn considered by the Minister when adopting this plan.

Proposed amendments to the plan were placed on public exhibition from 22 February to 13 May 2013, attracting 1 submission. The matters raised in the submission were carefully considered, along with the advice from the Far South Coast Regional Advisory Committee and Advisory Council, before revised amendments were adopted in 2014.

Additional information or enquiries about the park or reserve or this plan of management may be obtained from the Service's Office at cnr. of Merimbula and Sapphire Coast Drives, Merimbula or by phone on (02) 6495 5000.

## 2. MANAGEMENT CONTEXT

### 2.1 NATIONAL PARKS AND NATURE RESERVES IN NEW SOUTH WALES

#### 2.1.1 National Parks

The national park concept was introduced into Australia through the establishment of Royal National Park in 1879.

The International Union for the Conservation of Nature and Natural Resources (IUCN) in 1994 defined a national park as:

"A natural area of land/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area, and (c) provide a foundation for the spiritual, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible."

National parks are part of the regional pattern of land use. The management of a national park aims to minimise disturbance to natural and cultural resources. Other land uses, e.g., agriculture, forestry and mining, are distinguished by an acceptance or encouragement of environmental modification. National parks, therefore, provide for only a limited part of the range of land uses in a region.

#### 2.1.2 Nature Reserves

Fauna reserves in New South Wales were first established under the *Fauna Protection Act 1948*. Under the *National Parks and Wildlife Act 1967* fauna reserves were reclassified as nature reserves. The Fauna Protection Act was replaced by the National Parks and Wildlife Act 1974.

Under the National Parks and Wildlife Act, nature reserves are areas of special scientific interest containing wildlife or natural environments or natural phenomena.

The purposes of nature reserves are defined in the Act as:

- "(a) the care, propagation, preservation and conservation of wildlife;
- (b) the care, preservation and conservation of natural environments and natural phenomena;
- (c) the study of wildlife, natural environments and natural phenomena; and
- (d) the promotion of the appreciation and enjoyment of wildlife, natural environments and natural phenomena."

Nature reserves are valuable refuge areas, where natural processes, phenomena and wildlife can be studied. They differ from national parks which include as a major objective the provision of appropriate recreation opportunities.

## 2.2 BOURNDA NATIONAL PARK AND BOURNDA NATURE RESERVE

### 2.2.1 Location, Gazettal and Regional Setting

Bournda National Park and Bournda Nature Reserve are located on the far south coast of NSW between Tathra and Merimbula, approximately 15 km southeast of Bega. The nature reserve is adjacent to the southwestern boundary of the national park but the two areas are separated by Sapphire Coast Drive (see Map 1).

The nature reserve was dedicated in 1972 and has an area of 6088 ha. The area of the national park was gazetted in 1975 as Bournda State Recreation Area and was reserved as a national park in 1992. It has an area of 2590 ha.

The far south coast supports mainly grazing and forestry operations and the land surrounding the park and reserve forms part of the largely cleared Bega Valley. The district is also a popular tourist and holiday area, attracting large numbers of visitors during the summer, particularly to the coastal towns of Bermagui, Tathra, Merimbula and Eden.

A large proportion of the coastline of the region is protected by conservation reserves and these are an important tourist attraction. The other reserves include Mimosa Rocks National Park to the north of Bournda and Ben Boyd National Park, Nadgee Nature Reserve and Croajingalong National Park in Victoria to the south.

### 2.2.2 Importance of Bournda National Park and Bournda Nature Reserve

The important features of Bournda National Park and Bournda Nature Reserve are outlined below:

#### Land Systems, Geology and Landscape Values

The reserve and park together protect a major part of a coastal land system consisting of coastal range and associated ridges and valleys, hills, plain, estuaries and coastline.

The varied landform, particularly the coastal features such as cliffs, rocky bays, deep clefts, beaches and lakes, form a beautiful, interesting and in places spectacular, landscape. The nature reserve provides a scenic backdrop to the south-eastern Bega Valley.

Dissected rhyolite cliffs along the Kangarutha coast and elevated boulder beaches which indicate previously higher sea levels are geologically interesting features.

#### Biological Values

The variety of habitats in the park and reserve has resulted in a diverse range of plant and animal communities including several which are poorly preserved in the region.

The moist forests of southeastern NSW and adjoining parts of Victoria are amongst the most diverse temperate moist forests in the world (Keith and Sanders, 1990). Those protected in the park and reserve are therefore important.

A large number of threatened, rare and biogeographically significant plant species have been recorded in the park and reserve. These include the threatened species *Acacia georgensis* and *Pultenaea pedunculata* which occur in only a few locations in Bournda National Park, and the regionally rare or generally uncommon species *Hybanthus monopetalus*, *Mimulus repens*, coast daisy bush *Olearia axillaris*, Blakely's bush-pea

*Pultenaea blakelyi*, sandalwood *Santalum obtusifolium*, common acronychia *Acronychia oblongifolia*, forest red gum *Eucalytus tereticornis*, blue box *Eucalyptus bauerana* and native quince *Alectryon subcinereus*.

Several species reach the limit of their distribution within the park or reserve. These are downy zieria *Zieria cytisoides* and bower wattle *Acacia subporosa* at their northern limits, green spider flower *Grevillea mucronulata*, burrawang *Macrozamia communis*, native grape *Cissus antarctica*, hairy psychotria *Psychotria loniceroides* and *Senecio bipinnatisectus* at their southern limits and flannel flower *Actinotus helianthi* which appears to be a disjunct southern population. Species at their limit of distribution are scientifically interesting as they provide information about the ecology of those species (Mills, 1989).

The estuarine wetlands at the eastern end of Wallagoot Lake provide roosting and feeding areas for a large variety of waders and waterfowl including trans-equatorial species protected by international agreements. The threatened little tern *Sterna albifrons* and pied oystercatcher *Haematopus longirostris* nest in this area.

Other recorded animals listed under the *Threatened Species Conservation Act 1995* include the hooded plover *Thinornis rubricollis*, sanderling *Calidris alba*, Australasian bittern *Botaurus poiciloptilus*, powerful owl *Ninox strenua*, sooty owl *Tyto tenebricosa*, glossy black cockatoo *Calyptorhynchus lathami*, ground parrot *Pezoporus wallicus*, tiger quoll *Dasyurus maculatus*, brush-tailed phascogale *Phascogale tapoatafa*, southern brown bandicoot *Isodon obesulus*, yellow-bellied glider *Petaurus australis*, koala *Phascolarctos cinereus*, long-nosed potoroo *Potorous tridactylus*, common bent-wing bat *Miniopterus schreibersii* and great pipistrelle *Falsistrellus tasmaniensis*.

Bondi Lake is the largest fresh water lake situated behind coastal dunes in the region and is an important habitat for waterbirds. The lake's entire catchment is contained within the park and is relatively undisturbed. The lake provides a scientific reference point for ecological research.

### **Cultural Values**

Aboriginal heritage encompasses a broad spectrum of sites, places, landscapes and values. The park and reserve contain a number of sites and provide the opportunity for understanding Aboriginal use in the area. It is expected that more research into Aboriginal heritage will reveal a living link with the landscapes contained in the reserve and the park.

The area of the park, and to a lesser extent the nature reserve, has been intensively used in the past for logging, farming, transport, and rock and shale oil extraction. This history, combined with remaining sites and structures, is useful for illustration of the history of the district.

### **Recreational, Economic and Educational Values**

Bournda National Park is a valuable recreational resource for the local community and also an important tourist destination, both for people camping in the park and for people visiting from the nearby tourist centres of Tathra, Merimbula and Eden. The area is within a day's drive of Sydney, Canberra and Melbourne.

The park, along with Mimosa Rocks and Ben Boyd National Parks and Nadgee Nature Reserve, provides a range of recreation opportunities in very attractive natural settings. It provides a sense of escape from urban areas and complements the developed recreation settings and opportunities available in nearby towns.



Bournda National Park is more easily accessible and is more developed than Mimosa Rocks, Ben Boyd and Nadgee. It provides for visitors who seek a high level of facilities and reduces pressure for development of other Service areas which have more fragile environments.

The easy access, range of natural features and presence of a field studies facility make Bournda National Park the most suitable Service area on the far south coast for provision of educational information for visitors and for use by educational organisations.

The recreational and educational importance of natural areas such as Bournda National Park is increasing with the rise in popularity of nature tourism, adventure holidays and organised group educational activities.

The park makes an important contribution to the economy of the local district as the natural scenery and recreation opportunities provided are a major factor in attracting many holiday makers to the area.

### **3. OBJECTIVES OF MANAGEMENT**

#### **3.1 GENERAL OBJECTIVES FOR NATIONAL PARKS AND NATURE RESERVES**

The following general objectives relate to the management of national parks and nature reserves in New South Wales:

- \* protection and preservation of scenic and natural features, including significant geological and geomorphological features;
- \* conservation of wildlife, including maintenance of biodiversity and populations of threatened species;
- \* maintenance of natural processes;
- \* preservation of catchment values;
- \* preservation of Aboriginal sites in consultation with the Aboriginal community;
- \* conservation of non-Aboriginal historic features;
- \* provision of opportunities for appropriate use; and
- \* encouragement of scientific and educational enquiry into environmental features and processes, cultural features and use patterns.

#### **3.2 SPECIFIC OBJECTIVES FOR BOURNDA NATIONAL PARK AND BOURNDA NATURE RESERVE**

In addition to the above general objectives the management of Bournda National Park and Bournda Nature Reserve will be subject to the following specific objectives:

- \* protection of a sample of the landforms of the far south coast;
- \* maintenance of populations of rare, threatened and biogeographically significant plant and animal species;
- \* promotion of understanding and appreciation of the natural and cultural values of each area.

Bournda National Park will also be subject to the following additional objective:

- \* provision of a range of ecologically sustainable recreation opportunities which encourage enjoyment of the natural environment.

#### **3.3 OVERALL STRATEGY**

The park and reserve will be managed primarily to maintain and enhance their biodiversity and habitat value. A major secondary role of the park will be provision of a range of low key recreation opportunities.

Three major management strategies will be undertaken:

- \* promotion of regeneration of areas disturbed by past clearing, quarrying, logging and frequent burning by:
  - protection as far as possible from unscheduled fire;
  - control of introduced species; and
  - rehabilitation of unnecessary tracks and former quarries.
- \* management of the park and reserve in a regional landscape context in accordance with the Eden Regional Forest Agreement, and maintenance of links with other reserves along the coastline and ranges, most notably the large South East Forests National Park.
- \* promotion of public understanding of the values of the two areas and support for management programs designed to protect natural values.

## 4. POLICIES AND FRAMEWORK FOR MANAGEMENT

This chapter contains the policies and framework for the management of Bournda National Park and Bournda Nature Reserve together with relevant background information. Policies are summarised under the following section headings:

- NATURAL HERITAGE
- CULTURAL HERITAGE
- USE OF THE AREA

The policies established in this plan of management provide the framework for management consistent with anticipated resources available to the Service and anticipated community trends over the next five to ten years.

The actions identified are those to which priority will be given in the foreseeable future. Other management actions may be developed over the life span of this plan consistent with the policies set out in the plan.

Where not specifically provided for in this plan, management will also be in accordance with the National Parks and Wildlife Act and with general Service policies.

### 4.1 NATURAL HERITAGE

Natural heritage comprises all aspects of the natural environment including physical features such as geology and soils, plants and animals and the relationship between these. For convenience, management of landscape values, introduced species and fire are also considered in this section.

#### 4.1.1 Geology, Landform, Soils and Water Quality

The nature reserve and national park protect part of a contiguous land system.

The western boundary of the nature reserve lies on the Black Range, which averages nearly 300m above sea level. The range has formed on Ordovician basement rocks of slate, phyllite, siltstone, sandstone, schist and quartzite. The range falls steeply to the west. On the eastern side it extends into a series of steep east-west ridges and deep valleys formed mainly on folded Upper Devonian sediments of the Merimbula Group. These include sandstone, quartzite, conglomerate and siltstone.

Several streams drain from the Black Range to Bournda Lagoon and Wallagoot Lake in the national park and to extensive areas of wetland north of the nature reserve near Jellat Jellat. The streams cross cleared private land before reaching the lagoon and the lake. Sediment deposition is occurring in and around Wallagoot Lake.

Most of the park and the central eastern part of the reserve consist of undulating land on Middle Devonian Eden Rhyolite. The area of the park north of Wallagoot Lake (the Kangarutha area) is bounded along its western side by a low north-south plateau and consists of a number of east-west ridges and incised valleys running from the plateau. The coastline in this area features numerous cliffed headlands and small bays containing sandy or pebble beaches, with several spectacular clefts created by differential wave erosion.

The area of the park south of Wallagoot Lake is dominated by a hill 210 m ASL (Bournda Trigonometrical Station), from which several short streams form a radial drainage pattern. One has been dammed to provide water for management and recreation facilities. Several of the streams flow into Bondi Lake, which has its

catchment wholly in the park. Bondi Lake does not open to the sea and is generally fresh.

A narrow strip of park land extends around Wallagoot Lake. This comprises Tertiary and Quaternary sediments of sand, mud and gravel. Sand barriers have formed along the eastern side of Wallagoot Lake, Bondi Lake and Bournda Lagoon and form part of a beach dune system between Turingal Head and Tura Head. There are also extensive areas of Tertiary sediments in the areas south of Wallagoot Lake and south of Bournda Island.

Wallagoot Lake and Bournda Lagoon are subject to periodic flooding. Water occasionally covers the road along the northern shore of Wallagoot Lake. The lake entrance is opened by Bega Shire Council at times of flood.

Some erosion is occurring in formerly disturbed areas such as quarries and borrow pits north of Wallagoot Lake but natural regeneration is reducing this. Erosion is not presently a problem in other areas. The dunes and wetlands, however, are vulnerable to disturbance by recreational access, such as illegal vehicle use at the eastern end of Wallagoot Lake.

A former pipe clay quarry is located within the park at White Rock south of Kangarutha Point. The quarry and associated unformed tracks are subject to erosion, are a visual scar and not compatible with management of the area for nature conservation and recreational use. Rehabilitation is provided for in section 4.3.2.

The Merimbula Garbage Tip, adjacent to the southern boundary of the nature reserve, poses a threat as a source of leachate pollution, rubbish, fire and weeds into the reserve, and attracts feral animals. The tip has also encroached about 20m onto the reserve. Bega Valley Shire Council has undertaken to rehabilitate the encroachment area and to carry out water quality testing to monitor leachate.

### ***Policy***

- \* All works carried out in the park and reserve will be designed and undertaken so as to:
  - minimise erosion;
  - prevent water pollution; and
  - have no detrimental impact on the high natural landscape value.
- \* The stability of the sand dunes will be protected by control of access and maintenance of native vegetation cover. Any blowouts will, as far as possible, be stabilised and revegetated.
- \* The Service will seek protection of water quality in the streams entering the park and reserve from private land.
- \* The quality of water supplied to management and recreation facilities will be tested regularly to ensure that it meets Public Health standards. Action will be taken to remedy any water quality problems.
- \* Rubbish dumping within the nature reserve will be limited by reducing illegal public access.

## Action

- \* The Service will liaise with Bega Valley Shire Council and the Environmental Protection Authority regarding management of the Merimbula tip and reduction in impacts on the nature reserve. In particular, the Service will ensure that:
  - rehabilitation of the encroachment area is carried out satisfactorily;
  - rubbish is regularly removed from within the reserve; and
  - water quality testing is appropriate for indicating impacts on the reserve.
- \* Lockable sliprails will be placed on fire trails near the Merimbula Tip.

### 4.1.2 Native and Introduced Plants

The vegetation of the park and reserve is diverse, containing areas of tall moist forest, open forest, rainforest, wetland, scrub and heath. A variety of open forest communities cover most areas immediately away from the coast.

The most common tree species on dry ridges and slopes in the nature reserve are silvertop ash *E. sieberi*, yellow stringybark *E. muellerana*, bloodwood *E. gummifera*, woollybutt *Eucalyptus longifolia*, red ironbark *E. sideroxylon*, blue leaved stringybark *E. agglomerata* and rough-barked apple *Angophora floribunda*. Understorey species include black oak *Allocasuarina littoralis*, *Acacia falciformis*, *Platysace lanceolata*, *Hibbertia aspera* and *Poa spp.*

Sheltered lower slopes and gullies in the reserve support tall moist forests of monkey gum *E. cypellocarpa*, brown barrel *E. fastigata*, river peppermint *E. elata*, yellow stringybark, messmate *E. obliqua* and white stringybark *E. globoidea* with rainforest understorey and shrubs such as fireweed groundsel *Senecio linearifolius*, hop goodenia *Goodenia ovata*, gristle fern *Blechnum cartilagineum* and rough tree fern *Cyathea australis*.

Most of the park and the valley floors in the nature reserve have open forest and woodland communities of bloodwood, silvertop ash, woollybutt, white stringybark, yellow stringybark, blackbutt *E. pilularis*, blue leaved stringybark and native cherry *Exocarpus cupressiformis*, with shrubs such as sunshine wattle *Acacia terminalis*, spiny bossiaea *Bossiaea obcordata*, narrow-leaf geebung *Persoonia linearis*, black-eyed Susan *Tetratheca thymifolia* and common correa *Correa reflexa*. River oak *Casuarina cunninghamiana* is found along the major creeks such as Sandy Beach Creek. An area of woollybutt, blackbutt, grey box *E. bosistoana*, monkey gum and forest red gum *E. tereticornis* occurs on Tertiary sediments south of Wallagoot Lake.

Much of the forest of the park and reserve was logged and regularly burnt prior to reservation and there are few large trees. The most intensively affected area was north of Wallagoot Lake, where species such as tree ferns have been largely removed and in places dense stands of *Allocasuarina* have replaced eucalypts. Protection from frequent fire will be important in encouraging return of these areas to a more natural condition and improvement of their habitat value (see section 4.1.4).

Several areas in the park and reserve have been previously cleared for agriculture. These include the Scotts Bay and Bondi Lake areas, an area west of Wallagoot Gap and parts of the Kangarutha coastline. These sites are regenerating naturally apart from the tree and shrub planting and picnic area maintenance at Scotts Bay (further discussed in section 4.2.2). To date the natural regeneration consists largely of extensive *Melaleuca armillaris* stands but it is expected that species diversity will increase over time.

Small patches of gallery rainforest occur along creeks, throughout the park and reserve. The most extensive areas are along Boulder Bay Creek, Games Bay Creek, Sandy Beach Creek and Margaret Creek. The major species are lillypilly *Acmena smithii*, sweet pittosporum *Pittosporum undulatum*, bolwarra *Eupomatia laurina*, common acronychia *Acronychia oblongifolia*, *Lastreopsis* spp. and sassafras *Doryphora sassafras*. Ferns and vines are common and a variety of orchids occur.

Extensive areas of tall heath occur along dunes and headlands in the park. Common species include old man banksia *Banksia serrata*, stunted bloodwood, sweet wattle *Acacia suaveolens*, common aotus *Aotus ericoides*, tick bush *Kunzea ambigua* and giant honeymyrtle *Melaleuca armillaris*. In places the *M. armillaris* forms dense thickets.

In exposed areas a short heath of coast banksia *Banksia integrifolia*, coast rosemary *Westringia fruticosa*, toothed daisy-bush *Olearia tomentosa*, Sydney golden wattle *Acacia longifolia*, coast beard-heath *Leucopogon parviflorus*, *Pimelia* sp., common heath *Epacris impressa* and grass tree *Xanthorrhoea* sp. occur.

Foredune areas support mainly spinifex *Spinifex hirsutus*, tussock *Festuca littoralis* and pig face *Carpobrotus glaucescens*, with some marram grass *Ammophila arenaria*.

Small areas of sedgeland occur in poorly drained sections of heathland. These are dominated by *Lepidospermum concavum*, *Schoenus brevifolius*, grass tree *Xanthorrhoea resinosa*, scented paperbark *Melaleuca squarrosa* and *Epacris obtusifolia*.

Fresh and estuarine wetlands of rushes and sedges occur around the lakes. Species include saltmarsh *Sarcocornia quinqueflora*, streaked arrow-grass *Triglochin striata*, *Gahnia* spp., common reed *Phragmites australis* and *Juncus* spp.

The largest wetland area is on the northern side of Wallagoot Lake near Turingal Head. This area has been damaged by former public vehicle use for recreational prawning and current maintenance of a vehicle track to Turingal Head. The southern edge of the track has been fenced to prevent vehicles driving onto the wetland and the vegetation is recovering well. Alternative access on higher ground will be investigated (see section 4.3.2).

The lake has extensive areas of seagrass.

Rare and biogeographically significant plants listed in section 2.2.2 are concentrated at Kianinny Bay, the Sandy Beach Creek and Jellat Jellat Creek catchments and the western slopes and southern end of the Black Range. The western slopes of the Black Range are subject to frequent fire while Kianinny Bay receives considerable recreational use. Monitoring and possibly protection of these areas will be necessary.

Introduced plants infest small areas of the reserve and park. These include patches of bitou bush *Chrysanthemoides monilifera*, fireweed *Senecio madagascariensis*, Paterson's curse *Echium* sp., sea spurge *Euphorbia paralias*, tree of heaven *Ailanthus altissima*, fleabane *Conyza* sp., South African lovegrass *Eragrostis curvula*, *Paspalum dilatatum*, kikuyu *Pennisetum clandestinum* and blackberry *Rubus fruticosus*. All are controlled as necessary and in accordance with the Noxious Weeds Act and the Bournda Weed Management Plan.

Maintenance of links to other reserves and areas of naturally vegetated land is essential for long term conservation of biodiversity. Adjacent naturally vegetated land performs an important wildlife corridor function and also acts as a buffer zone around the park and reserve. The Service will seek to have adjacent vegetation retained through such means as voluntary conservation agreements, landcare and environmental planning controls.

Under the Eden Regional Forest Agreement (EFA) all forest managers including State Forests of NSW, Dept Land & Water Conservation and the Service must demonstrate ecologically sustainable forest management (ESFM). ESFM aims to maintain or increase the full suite of forest values for present and future generations across the NSW native forest estate, including:

- ecosystem biodiversity, health, vitality, productive capacity and functional processes;
- soil and water productive capacity and functional processes;
- global geochemical cycles;
- long term social and economic benefit; and
- natural and cultural heritage values.

Performance indicators of ecologically sustainable forest management are identified in the ESFM report. The indicators are statements of direction. They will be used to demonstrate the impact of management actions on the ecological functions within forests and to test the adequacy of management. Remedial management actions will then be undertaken as required.

The concept of ESFM is in its infancy and further development of criteria and management approaches will be necessary. Over the next several years the Service will:

- establish and implement monitoring protocols and techniques to ensure ecologically sustainable forest management;
- develop research programs to fill knowledge gaps and improve the ability to collect and interpret data;
- develop codes of practice and adaptive management programs; and
- develop processes to collate and report on compliance with ESFM requirements.

The principles and practices developed will be applied to Bournda National Park and Bournda Nature Reserve, along with other parks and reserves in the EFA area.

### ***Policy***

- \* The diversity of vegetation communities and species in the park and reserve will be conserved.
- \* Regeneration of areas disturbed by past clearing, logging and burning will be encouraged.
- \* Vegetation communities will be protected from disturbance, with special emphasis on the protection of rare, uncommon and biogeographically significant plant species.
- \* Introduced plant species will be controlled in accordance with the Noxious Weeds Act 1993 and the Bournda Weed Management Plan.
- \* The Service will encourage programs by local Landcare groups to assist with eradication of noxious weeds from areas near the park and the reserve and to work with the Service to control weeds within these areas.
- \* The Service will:
  - negotiate voluntary conservation agreements with neighbouring properties if they have conservation significance;



- encourage the retention of native vegetation through programs such as landcare and Farming For the Future; and
  - liaise with the Department of Land and Water Conservation over land clearing applications and Bega Shire Council over the protection of native vegetation in the Local Environment Plan.
- \* The Service will encourage neighbours to plant native plants on their properties and will assist them in their selection of plants.

### **Action**

- \* The Bournda weed Management Plan will be reviewed to reflect present weed infestations and legislation changes.
- \* Control of blackberry, bitou bush, tree of heaven and other weeds will be undertaken as needed.

### **4.1.3 Native and Introduced Animals**

There have been a number of native animal surveys within the park and reserve. These surveys revealed a wide diversity of animal species occurring in these areas. Threatened species are listed in section 2.2.2.

Native mammals recorded include the eastern grey kangaroo *Macropus giganteus*, swamp wallaby *Wallabia bicolor*, red necked wallaby *Macropus rufogriseus*, sugar glider *Petaurus breviceps*, common brushtail possum *Trichosurus vulpecula*, feather-tailed glider *Acropates pygmaeus*, pigmy possum *Cercatetus nanus*, ring tailed possum *Pseudocheirus peregrinus*, native rats *Rattus spp.* and wombat *Wombatus ursinus*.

Roughly 200 species of birds have been observed in the park and reserve. Forest birds include the yellow tailed black cockatoo *Calyptorhynchus funereus*, gang gang cockatoo *Callocephalon fimbriatum*, crimson rosella *Platycercus elegans*, common bronzewing *Phaps chalcoptera*, wonga pigeon *Leucosarcia melanoleuca*, king parrot *Alisterus scapularis*, brown-headed honeyeater *Melithreptus brevirostris*, bell minor *Manorina melanophyra*, brush cuckoo *Cuculus variolosus*, pied butcher-bird *Cracticus nigrogularis* and southern boobook *Ninox novaeseelandiae*.

Raptors recorded include the wedge-tailed eagle *Aquila audax*, brown falcon *Falco berigora*, whistling kite *Haliastur sphenurus*, grey goshawk *Accipiter novaehollandiae*, white breasted sea eagle *Haliaeetus leucogaster* and peregrine falcon *Falco peregrinus*.

Woodland and heathland birds include the striated calamanthus *Calamanthus fuliginosus*, emu wren *Stipiturus malachurus*, stubble quail *Coturnix pectoralis*, white-throated needletail *Hirundapus caudacatus*, Richards pipit *Anthus novaeseelandiae*, chestnut-rumped hylacola *Sericornix pyrrhopygius* and tawny crowned honeyeater *Phylidonyris melanops*.

Waterbirds recorded on the lakes and lagoons and along the coastline include the black swan *Cygnus stratus*, musk duck *Biziura lobata*, chestnut teal *Anas castanea*, eastern swamp hen *Porphyris melanotus*, pied cormorant *Phalacrocorax varius*, eastern curlew *Numenius madagascariensis*, lesser golden plover *Pluvialis dominica*, ruddy turnstone *Arenaria interpres* and red capped dotterel *Charadrius ruficapillus*.

The ground nesting coastal birds (such as little tern, pied oystercatcher, red capped dotterels and silver gulls *Larus novaehollandiae*) are subject to disturbance by recreational use of the waterways and foreshore at the eastern end of Wallagoot Lake. This can severely affect breeding success. Unfortunately the main breeding location is

not reserved within the park. Nesting opportunities for little terns could be improved by removal of vegetation to create the necessary patches of bare sand and control of predators such as dogs and foxes. A recovery plan is being drafted for the little tern.

Reptiles recorded include the death adder *Acanthophis antarticus*, red bellied black snake *Pseudechis porphyriacus*, tiger snake *Notechis ater*, diamond python *Morelia spilotes*, blue tongued lizard *Tiliqua scincoides*, water dragon *Physignathus lesuerii* and lace monitor *Varanus varius*.

Introduced animals found in the park and reserve include rabbits, cats and foxes. Rabbits occur mainly in formerly cleared areas. They may inhibit regeneration and can impact on cultural heritage sites. Rabbit numbers are relatively low throughout the park and reserve but are high in cleared areas around Wallagoot Lake. Consequently fox numbers are also highest in these areas. There are on-going rabbit control programs but rabbit calicivirus has not been active in the park. Rabbits and foxes must be controlled at the same time to avoid prey switching by foxes when rabbits become scarce. Rabbit and fox control programs have been concentrated in the cleared areas around Wallagoot Lake because of the higher numbers and for the protection of nesting shorebirds. The Service is seeking cooperative fox and rabbit control programs with neighbours and the Rural Lands Protection Board to broaden the control area and enhance success. Cats are controlled if observed but systematic programs are not currently practical because of the lack of approved methods.

### **Policy**

- \* The diversity of habitats and native animal species occurring in the park and reserve will be conserved.
- \* The Service will actively initiate and participate in research and monitoring of threatened species and manage threatened species in accord with their recovery plans.
- \* Priority will be given to management strategies or programs that favour conservation of threatened species. As far as possible programs will be designed, however, to conserve the full range of native animal species in the park and reserve.
- \* The construction of visitor facilities will be undertaken in such a way as not to impact upon threatened species. Facilities will also be kept out of sensitive areas.
- \* Pest animal species will be managed in the park and reserve in accordance with the Eden District Feral Animal Control Plan.
- \* The Service will control the impact of domestic animals on native animals through on-going education and law enforcement programs.

### **Action**

- \* Use and disturbance of the little tern nesting location will be monitored.
- \* Action to improve breeding success of little terns, such as vegetation removal and access control, will be undertaken as necessary.
- \* Control of foxes and other feral predators will be undertaken each year in the vicinity of the Wallagoot Lake estuarine wetlands prior to the shorebird breeding season.

- \* Comprehensive fox and rabbit control will be undertaken throughout the park and reserve, with priority to cleared areas around Wallagoot Lake.
- \* The Service will seek protection of the island, intertidal areas and bed of the eastern end of Wallagoot Lake.
- \* The neighbours newsletters will carry articles on why neighbours should control domestic pets.
- \* The Service will participate where appropriate in internal and external research and will help set-up threatened species surveys.

#### **4.1.4 Fire Management**

Fire is a natural feature of the environment of the park and reserve and is essential to the survival of some plant communities. Frequent or regular fire, however, can cause loss of particular plant and animal species and communities. Fire can also damage some types of Aboriginal sites, historic structures and recreation facilities and threaten visitors and neighbouring land.

Management of fire is an important and complex issue. It must aim to achieve both long term conservation of natural communities and ongoing protection of life and property within and adjacent to the park and reserve.

##### **Fire history and ecological considerations**

The pre-European fire history of the park and reserve is not known. From research conducted elsewhere, it appears likely that the frequency and intensity of fires has altered since European settlement, with consequent impacts on vegetation species and structure.

As stated in section 4.1.2, frequent fire in the Kangarutha area has resulted in eucalypts being replaced by dense stands of oaks while frequent spring fires along the ridges in the nature reserve are encouraging native grasses. These pose a summer fire risk after curing. Frequent fires are particularly damaging for populations of arboreal mammals that need mature trees and species which require dense ground cover. Frequent burning along the western face of the Black Range is contributing to soil erosion on neighbouring properties and erosion and siltation of Greendale Creek.

The disturbed open forests of the park should preferably not be burnt for a considerable period in order to encourage regeneration and return to a condition similar to what would have occurred prior to clearing and logging. Generally, however, a variety of fire regimes is needed in order to conserve floristic diversity and provide diversity of habitat for animals. Fire management aims to maintain this diversity by restricting planned and, if possible, unplanned fires to only a part of the distribution of a vegetation type within the reserve at any one time. This approach will ultimately result in a mosaic of age classes for each of the vegetation types of the reserve.

The fire response of the rare plant *Acacia georgensis* and other significant species is not well known. Many rare plants tend to be fire sensitive, however, and management should aim as far as possible to minimise the effects of fire in areas of rare species.

##### **Strategies and cooperative arrangements**

A variety of fire management strategies have been developed including fuel reduction, fire trails, detection and cooperative arrangements. Some, or at times all, of these are applied where appropriate to best protect life, property and natural and cultural assets

within and adjacent to the park and reserve. In particular, close to boundary areas, fuel reduction programs and fire trail maintenance systems will be designed and implemented in cooperation with neighbours. A fire management plan will be prepared to detail fire management strategies and programs. Information obtained from monitoring in accordance with ESFM requirements (see section 4.1.2) will be used to progressively update and refine the fire management plan.

Public roads or management tracks run along some boundaries and along parts of the Black Range and some other ridges in the reserve and park. Most management trails are in a satisfactory condition but periodic maintenance is needed to maintain their standard. Management tracks and temporary fire control trails in the nature reserve have been used to gain illegal access for activities such as bush rock and timber removal, off-road vehicle use and car and rubbish dumping. It is important to rehabilitate temporary tracks as soon as possible after a fire.

The Service is part of local co-operative fire management arrangements. Bega Valley District Bush Fire Management Committee, established under the *Rural Fires Act, 1997* aims to coordinate and monitor fire management and fire control on a district basis.

### **Policy**

- \* Fire will be managed in accordance with the fire management plan and the principles below to ensure:
  - protection of human life and property within and adjacent to the park and reserve;
  - conservation of rare, endangered and biogeographically significant plant and animal communities;
  - maintenance of those plant and animal species and communities which require a particular fire frequency or intensity;
  - encouragement of regeneration of areas which have been subject to frequent fire in the past;
  - maintenance of the stability of the sand dunes; and
  - protection of Aboriginal sites, historic places, visitor facilities and management structures.
- \* Prescribed burning may be used to reduce fuel loads in areas of identified high risk to protect the western boundaries, adjacent properties, cultural resources, management resources and fire sensitive vegetation. Prescribed burns may also be undertaken to enhance habitat requirements for native animals and to protect wildfire sensitive native animal species.
- \* Prescribed fire will not be used within or immediately adjacent to rainforest, dunes, headlands, wetlands or rare or significant plants.
- \* Fire protection will be carried out in co-operation with neighbours for mutual protection where required.
- \* The use of heavy machinery for fire suppression will be avoided wherever possible and particularly in the vicinity of rare plant communities, Aboriginal sites, historic places and in wetland and heathland.
- \* Temporary tracks and areas disturbed by fire suppression operations will be rehabilitated as soon as practical after the fire.

- \* Close contacts will be maintained with volunteer bush fire brigades, Council fire officers and NSW State Forests. The Service will continue to actively participate on local District Bush Fire Management Committees.

### **Action**

- \* A fire management plan will be prepared for the park and reserve detailing life, property and natural and cultural resource protection principles, strategies and programs, cooperative arrangements and fire trail network requirements.
- \* Fuel management and trail maintenance programs will be prepared by 2000 and undertaken in conjunction with Bega Valley Fire Protection Committee operation and risk management planning and the park and reserve fire management plan.

## **4.2 CULTURAL HERITAGE**

Cultural resources are important components of the environment that may have aesthetic, historic, scientific and social significance to present and future generations. Cultural heritage includes both Aboriginal and non-Aboriginal history.

### **4.2.1 Aboriginal Heritage**

Aboriginal people of the Dhurga language group of the Yuin tribe occupied the Bournda area. The Dhurga people had affiliations with other groups along the coast as far as Sydney and east Gippsland. The coastline, estuaries, hinterland forest and the presence of fine-grained rock would have provided rich food and tool sources for Aboriginal people. Following European settlement in the area it is probable that Aboriginal people were employed in the logging, mining or pastoral operations that took place. The park and reserve fall within the area of the Bega Local Aboriginal Land Council.

There has been little systematic survey of the area of what is now Bournda National Park and Bournda Nature Reserve but 26 Aboriginal sites are known. Most are open camp sites or shell middens located around the estuaries and along the coastline on beaches, rocky bays and headlands. More Aboriginal sites are likely to be present.

A burial site is located within the park. Bones from the burial have been re-buried at Wallaga Lake in consultation with the local Aboriginal community. Two Aboriginal quarries are located close to the park and there are ceremonial grounds just outside the nature reserve. These indicate the importance of the area to Aboriginal people.

Camp sites and middens are easily damaged by visitors because of the scientific requirement that artefacts be retained in their original positions. The coastal and estuarine sites are particularly vulnerable to disturbance by recreational use.

The strong attachment of Aboriginal people to the land is acknowledged by the Service. Archaeological sites are important to Aboriginal communities as they are a testament to their culture's great antiquity. Aboriginal people may also have traditional spiritual links with an area and hold knowledge which is important for nature conservation. While the Service presently has legal responsibility for the protection of Aboriginal sites it acknowledges the right of Aboriginal people to make decisions about their own heritage. It is therefore policy that Aboriginal communities be consulted about decisions regarding the management of Aboriginal sites and related issues and how the Aboriginal culture and history of an area controlled by the Service will be promoted and presented.

There is interest in the local Aboriginal community in undertaking cultural activities in the park and the park is affected by a native title claim. Cultural activities are appropriate as long as they comply with the policies of this plan of management and have minimal environmental impact. It may be necessary to review the management of Aboriginal culture in the park following the resolution of the native title claim.

### ***Policy***

- \* Aboriginal sites will be protected from disturbance.
- \* Bega Local Aboriginal Land Council and other relevant Aboriginal community organisations will be consulted and actively involved in all aspects of management of Aboriginal sites and values in the park.
- \* All work involving ground disturbance proposed for the park and reserve will be preceded by an inspection for Aboriginal sites.
- \* The location of Aboriginal sites will not be publicised except where:
  - the agreement of the Bega Local Aboriginal Land Council has been obtained;
  - a conservation study has been prepared and any management works necessary to protect the site from damage have been implemented; and
  - the site will be interpreted to promote public knowledge and appreciation of Aboriginal culture.
- \* Research into past Aboriginal use of the area and the distribution of Aboriginal sites will be encouraged.
- \* Protection of Aboriginal heritage will be taken into account when developing strategies for management of pest species, fire and recreation use.
- \* Aboriginal people may be permitted to carry out activities in the park related to maintenance of traditional links to the land. Any such activities must comply with the objectives and policies of this plan of management and have minimal environmental impact.
- \* Management of Aboriginal culture in the park will be reviewed following any successful Aboriginal Native Title claim.

### ***Action***

- \* An Aboriginal heritage management strategy will be developed with the local Aboriginal community.
- \* Aboriginal sites close to areas of public use or in areas affected by erosion will be monitored.

## **4.2.2 Historic Places**

The Bournda district was intensively logged and farmed last century and the current park area is largely a regenerating landscape (refer to section 4.1.2). The date of non-Aboriginal settlement of the area is not known but by 1858 produce was being shipped to markets.

A Mr Games selected and cleared land in the park at what is now known as Games Bay for dairy farming, probably last century. The area around Bondi Lake was selected by Waterson, probably last century, and was also cleared and worked as a dairy. At one stage cattle were jumped from ships standing out from Bournda Beach and swum ashore to Waterson's property.

During the last century the Bournda area supported two schools, one on the northwestern corner of Wallagoot Lake and one at the northern end of Bondi Lake.

Two bays along the Kangarutha coastline, at Kangarutha Point and Kianinny, were locations for storage and shipping of agricultural produce. Anchor bolts are located at Kangarutha Point and it is believed that the existing track to the Point was the one originally used to supply ships anchored there.

In 1859 Surveyor Bransby surveyed a track between Merimbula and Bega along the park coastline, across the mouth of Bournda Lagoon. As Merimbula was a port for Bega, the track was used to transport produce and passengers. Teams camped at 'Freshwater Lake' (Bondi Lake). The route of the old road can still be seen between old fence lines and stands of *Melaleuca armillaris* regrowth on the western side of Bondi Lake.

Shale oil was extracted by a well on the headland south of Bournda Island from 1914 to 1920. There are several abandoned quarries in the Kangarutha area and on the eastern slope of Bournda Trig.

Because of its rugged topography, the nature reserve received less development but a boundary blaze, a few clearings and fence lines indicate former agricultural use of the northeastern corner (Monks Farm). Some evidence remains of gold mining in the Black Range during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries.

Bones from the Merimbula Slaughter House were dumped in the nature reserve until the slaughter house closed in 1975. The former Merimbula town tip is also located in the nature reserve.

Sleeper cutters worked the Kangarutha area during the 1920's and 1930's, supplying a significant proportion of the sleepers for the Indian rail system. Later large amounts of firewood were taken from the area for a brick kiln at Kalaru. Logging continued until establishment of Bournda State Recreation Area in 1975. Sleeper cutters also worked along the Black Range. Old tracks and bark dumps remain.

The conservation and recreation values of the area began to be appreciated in the middle of this century. In 1973 the Bega Tathra Conservation Society created the Bournda nature trail within what is now the park and in 1977 the Society constructed a field studies centre (High Ridge Hut).

The only known historically significant feature in the park or reserve is a three room slab hut at Scotts Bay (Scotts Hut). It is of bush post and beam construction with sapling rafters, slab walls, timber floor and iron gable roof. The central room has a large stone fire place with an iron chimney. The hut was constructed in 1890 by Thomas Scott. It was originally one of two buildings and was used as a kitchen, dining and storage area.

The hut is architecturally and historically significant as a rare example of a vernacular building associated with the original agricultural settlement of the district. There are few slab buildings protected within Service areas and very few remaining on the NSW coast.

The hut has been stabilised and renovated. It is open for viewing by the public and information signs have been placed inside. Planting of native and exotic species has been undertaken between the hut and the nearby staff house (section 4.3.5) and a

fenced garden area with tree and shrub plantings surrounds the hut. These do not necessarily have a historic basis. Management of the plantings and fence will be considered during preparation of a conservation plan for the hut and surrounding landscape and they may be removed to regain an open vista between the hut and lake. Plantings west of the hut will be retained to screen the nearby more recent house.

### ***Policy***

- \* The historic places of the park and reserve will be conserved in accordance with the Burra Charter of Australia ICOMOS.
- \* All works will be preceded by a check for historic places as part of the environmental assessment process to ensure protection of these sites.
- \* Scott's Hut and the surrounding landscape of Scotts Bay will be maintained in accordance with a conservation maintenance plan to be prepared.
- \* Fence posts in the park and reserve will be retained as indicators of past land uses.
- \* Protection of historic heritage will be taken into account when developing strategies for management of pest species, fire and recreation use.

### ***Action***

- \* An overview history and archaeological assessment, leading to the identification of historic sites and features and conservation planning and interpretation will be prepared for the park and reserve.
- \* A conservation plan will be prepared and implemented for Scotts Hut and the surrounding landscape of Scotts Bay. The plan will include research and analysis of the history and significance of the area, and preparation of policies for management of the vegetation and other landscape features as well as the hut.
- \* Exotic trees and shrubs planted to the north of Scotts Hut will be removed unless it is demonstrated in the conservation plan that they have a historic basis. Historically valid plantings will be replaced with similar species as existing trees and plants die.

## **4.3 USE OF THE AREA**

Certain public and private uses may be appropriate in Service areas provided that they do not conflict with the primary purpose of conservation of natural and cultural heritage and are consistent with the objectives and strategy of the plan of management. The major categories of use that can be appropriate in Service areas are:

- education and promotion of the area, the Service and the conservation of natural and cultural heritage;
- certain types of recreation;
- research; and
- management operations by the Service and other authorities with statutory responsibilities in the area.

The extent to which these categories of use will be provided for in Bournda National Park and Bournda Nature Reserve is indicated below.



### **4.3.1 Promotion, Interpretation and Environmental Education**

Bournda National Park is the most easily accessible and most developed Service area on the far south coast and is best placed for promoting environmental/cultural understanding/knowledge and gaining support for nature and cultural conservation.

Promotion of public appreciation of the area's conservation values and role increases visitor enjoyment and public understanding and support for protective management programs.

An information bay is located adjacent to the main park entry road, interpretation shelters have been provided at the Wallagoot Lake Boat Club, North Tura carpark, Kianinny Bay and Tura Beach, and information is available in the camping area barbecue shelter. Educational activities such as guided walks and talks are undertaken during school holiday periods.

Scotts Bay is a valuable resource for interpreting the historic heritage values of the park and the district.

Small scale community and commercial operations such as guided tours which promote public understanding and appreciation of natural and cultural values may be appropriate in the park. Any applications for such operations will be assessed in terms of their environmental impact, effects on other visitors, the interpretation programs offered and other relevant factors.

Aboriginal heritage is alive and dynamic and encompasses more than pre-contact association. Interpretation of Aboriginal culture in the park should be integrated with tours run by Aboriginal groups in the local area. A co-operative approach to heritage interpretation is recommended which pools the skills and knowledge of NPWS staff and Aboriginal people. The scope and form of the interpretation in the park should not see NPWS forming competition with Aboriginal enterprises.

The primary purpose of nature reserves is preservation of their ecological values. Educational and some recreational use of nature reserves is appropriate where it does not conflict with environmental protection.

### **Environmental Education**

The Department of education and Training operates the Bournda Field Studies Centre (FSC) from an administration building within the Park and near Scott's Bay. The FSC conducts field programs of from one to five days for students from K - 12. Its services are also used by community groups. The FSC aims to foster awareness of the inter-relationships between the people and the environment, and to develop attitudes and abilities which will assist in the solution of environmental problems. Most students on two to five day programs run by the FSC accommodate in the park camping area, near the purpose built shelter shed"

An additional educational facility (High Ridge Hut) consisting of a classroom building with educational material, four sleeping huts and toilets is located south of Bondi Lake in the park. This is utilised at times by the Field Studies Centre and community organisations such as scouts for outdoor education and recreation activities. The facility and its surrounds require considerable on-going maintenance and fire protection and some upgrading of the facility is needed to bring it up to an acceptable standard. Since there are now two separate field studies facilities in the park, the need for the High Ridge Hut complex will be reviewed.

The Service will seek to establish a Memorandum of Understanding (MOU) with the Bournda Field Study Centre. This document is intended to set out a working agreement

between the two parties and establish a set of principles by which the two parties will work together to achieve shared objectives for environmental education.

### **Policy**

- \* Bournda National Park and Bournda Nature Reserve, will be promoted as important natural areas offering a variety of opportunities for appreciation of the natural environment and cultural features.
- \* Understanding and appreciation of the natural and cultural values by visitors and the local community will be encouraged by such means as provision of on-site interpretive information, media releases and holiday activity programs.
- \* The following themes will be emphasised in promotional and interpretive material:
  - the importance of the park and reserve for protection of populations of native plants and animals including significant species;
  - the geology and geomorphology of the area, particularly the formation of coastal features such as the sand barriers and clefts;
  - Aboriginal heritage, before and after European settlement;
  - the history of use of the area including agriculture, transport, logging and extractive industries; and
  - the changes in vegetation due to changes in management, including management dating from when the area became a state recreation area.
- \* Operation of the Bournda Field Studies Centre in the park will continue to be supported.
- \* The Field Studies Huts south of Bondi Lake will be maintained and will be available to educational and other appropriate groups subject to negotiation with the FSC and the Service.
- \* Educational, community and commercial tour operations may be permitted in the park subject to the following:
  - use will be confined to existing tracks and facilities which have been designed to cope with the level and type of use proposed;
  - provision of accurate and adequate interpretive information will be encouraged; and
  - limits will be placed on group sizes and frequency of use to minimise environmental impacts and conflicts with other users.
- \* Interpretation of Aboriginal culture in the park should encompass Aboriginal input either by directly running programs or through liaison with NPWS staff.
- \* Temporary signs will be used where necessary to explain management works or approaches to issues such as management of revegetating areas in the park.

### **Action**

- \* Information shelters will be erected at the proposed car parks in the Turingal Head area and at Wallagoot Gap (see section 4.3.2).
- \* The Service will prepare an MOU document between the Service and the FSC. This agreement will establish a set of principles by which the two parties will work together to achieve shared objectives for environmental education.

- \* Interpretation of Scotts Hut and Scotts Bay will be reviewed in accordance with the conservation management plan for the area.
- \* A sign will be erected at the Field Studies Centre explaining the origin of the buildings.
- \* The Service will continue to interpret the park through such means as Discovery Ranger programs, brochures and media releases as well as by use of interpretive signs.
- \* Directional signage throughout the park will be reviewed and, where necessary, improved
- \* The use, function and maintenance of High Ridge Hut will be reviewed in consultation with the managers of the Field Studies Centre.

### **4.3.2 Recreation Opportunities**

Nature reserves are gazetted primarily because they contain important ecological, cultural and geological values. Recreation activities and facilities are not generally promoted in these areas.

Currently about 140 000 people visit the national park each year. Roughly one third are from the local community, another third from other parts of southern NSW and northeastern Victoria, and the remainder are from outside the region including Melbourne and Sydney. The number of local visitors has been increasing with rapid growth of nearby towns and rural residential development. Most visitation occurs during summer holiday periods, and the great majority of visitors are day-users. Only a small proportion camp in the park.

Vehicle access to the park is via Sapphire Coast Drive and local access roads to Tura Beach, the southern and northern shores of Wallagoot Lake and several sites along the Kangarutha coastline.

Three vehicle tracks to the Boulder Bay area of the Kangarutha coastline are used for access for recreational fishing. These detract from the isolated natural character of the area and result in erosion, vegetation damage and damage to Aboriginal sites. Only one vehicle track to the Boulder Bay area, combined with walking tracks, is considered necessary.

Construction of a carpark at the end of the vehicle track to the White Rock quarry will be undertaken upon rehabilitation of the quarry (provided for in section 4.1.1). The track provides vehicle access for fishing and walking.

As stated in section 4.1.2, vehicle access to the Turingal Head area will be relocated away from the lake edge wetlands, through the cleared lands north of the lake. The possibility of constructing access from the ridge north of the lake rather than from the boat club will be investigated, since the Wallagoot Lake road is subject to flooding. The existing track will be maintained for walking use.

In association with provision of the new road to the Turingal Head area, a new car park, a picnic area, walking tracks, steps and signage will be provided. A new car park will also be constructed east of the boat club at the prawning beach.

Most recreational use of the park is water-based, including swimming, boating and fishing activities. Wallagoot and Bournda ocean beaches are not particularly safe and consequently Wallagoot Lake and Bournda Lagoon are popular for swimming.

Day use parking and picnic areas are provided at a number of locations south of Wallagoot Lake at Tura Beach, Bournda Lagoon, Hobart Beach and Scotts Bay. Scotts Bay provides for group picnicking and informal ball games. It is a popular destination for locals as no similar facilities are available in nearby coastal areas. A shelter with barbecue facilities available for hire is located at the entrance to the Hobart Beach camping area. Picnic areas are also located on the northern side of the lake adjacent to the Wallagoot Lake Boat Club area and at Kianinny Bay just outside the park.

Firewood collection damages the coastal scrub and forest around the picnic and camping areas. Replacement of wood fires with gas barbecues is proposed in heavily used areas.

Wallagoot Lake receives heavy use for sailing and power boating, centred on a boat club located on the northern shore. The club area consists of a building, parking area and boat ramp on permanently leased land located within the park. Re-routing of vehicle access to the boat ramp is needed in order to prevent through-traffic in the adjacent picnic area and associated safety risks. Redesign of the picnic area and parking areas will also be needed to address erosion, Aboriginal site damage and amenity. This will be undertaken in association with the Club.

Canoeing is carried out on Bournda Lagoon but no boating or swimming are allowed on Bondi Lake in order to protect its habitat values and water quality.

Recreational prawning is a popular summer activity on the northeastern shore of Wallagoot Lake. Large numbers of people use the area, creating parking problems, considerable disturbance to wetland habitats and bird breeding areas and lighting many unauthorised fires around the foreshore.

Several walking tracks in the park provide for short walks (Hobart Beach/Scotts Bay, Bournda Trig, Bondi Lake, Bournda Lagoon to Tathra Beach area) and long walks (Kangarutha coastline).

Cycling is a popular activity and is undertaken throughout the park on management trails and public roads. Presently there are no single-tracks exclusively for mountain bike use in the park. There is an opportunity in the White Rock and Games Bay area to provide two single-tracks which would link with other adjacent tracks off park and can be established with minimal disturbance. One track of 500 metres would link White Rock Road and Games Bay Fire Trail to create a mountain bike loop track made up of single-track and an existing road and fire trail. The other track would be one kilometre of single-track which would parallel White Rock Road and would link to adjacent mountain bike tracks on private property and vacant crown land.

It is proposed that Tathra Mountain Bike Club may use a loop section of the park each year as part of a longer circuit for the Tathra Enduro Event. This bike ride event is held annually in Tathra and uses a network of single-tracks and vehicle tracks in the locality. Any use of the park for this event or other events will require a consent and will be subject to conditions to minimise environmental and social impacts as identified in its environmental impact assessment.

An unpowered camping area with 60 marked sites, septic toilets, hot showers and laundry facilities is located in the park at Hobart Beach on the southern shore of Wallagoot Lake. Caravans are permitted but generators are not allowed. Some re-

design of the camping area would be desirable to reduce environmental damage, improve screening between sites and provide for disabled access.

Group camping is permitted at the field studies huts and at the Hobart Beach camping area outside holiday periods.

Walk-in camping is allowed more than 1 km from roads.

Some horse riding is undertaken along the public vehicle access system in the park. It is likely that with the increasing rural residential development in the area more people will seek to ride in the park. Horse riding is not an appropriate use of the nature reserve because of the strict nature conservation purpose of nature reserves.

It is intended to make suitable locations in the park accessible for disabled people, including wheel chair users. Works are set out below to achieve disabled access to the main day use locations and the camping area.

### ***Policy***

- \* Low key recreational use which encourages appreciation of the natural and cultural heritage will be provided for in the national park.
- \* Recreational uses other than bush walking will generally not be permitted in the nature reserve. No recreation facilities will be provided.
- \* The Kangarutha area of the park will be managed as a relatively undeveloped natural area providing for recreational fishing, mountain biking in appropriate designated areas as shown on Map 2, and extended walking along the coastline. Vehicle access will be provided to the following three areas: White Rock, Boulder Bay and Games Bay.
- \* Existing recreation facilities in the area south of Wallagoot Lake will be maintained. Some redesign or minor upgrading of facilities may be undertaken to address environmental and amenity issues, as provided below.
- \* Walking tracks will be maintained to a basic standard sufficient to prevent erosion.
- \* Group camping will be permitted at the field studies huts and outside peak periods at the Hobart Beach camping area.
- \* Walk-in camping will be permitted in the park and reserve more than 1 km from roads but not on dunes, coastal heath, lake shores or other environmentally sensitive locations.
- \* Public vehicle access will be permitted only on public access roads shown on Maps 1 and 2 and on new access to be arranged to the Turingal area. These roads will be maintained to 2WD standard apart from the track to the Boulder Bay area, which will be maintained to 4WD standard.
- \* Vehicle tracks and mountain bike tracks in the Kangarutha area of the park may be temporarily closed to use during wet periods to prevent environmental damage.
- \* Organised groups will need permits to undertake activities in the park and reserve.

- \* Horses will be permitted in the national park only on roads and tracks open for use by public vehicles. Horses will not be permitted on beaches in the park and will not be permitted to remain in the park overnight. Horses will not be permitted in the nature reserve. Vehicle tracks in the Kangarutha area will be closed to horse riding if riding is found to cause significant environmental damage.
- \* Recreational swimming and boating will not be permitted on Bondi Lake.
- \* Disabled access will be provided where feasible to North Tura, Scotts Bay and the Hobart Beach area.

### **Action**

- \* The following work will be undertaken in the Turingal Head area once public consultation and environmental impact assessment have been completed for an alternative road route and the necessary approvals obtained:
  - a car park will be constructed at the prawning beach east of the boat club;
  - a new public access road will be constructed to approximately 200 m northwest of Wallagoot Gap;
  - a parking and picnic area will be constructed at the termination of the new road;
  - the existing vehicle track along the lake shore will be closed to vehicles east of the prawning beach car park but will remain open for walking;
  - a viewing platform and steps will be constructed at Wallagoot Gap Beach;
  - rehabilitation and erosion control measures will be undertaken as needed.
- \* A vehicle access and parking concept plan for the Wallagoot Lake Boat club will be prepared and implemented in association with the boat club.
- \* Upgrading of the picnic area adjacent to the Wallagoot Lake boat club will be undertaken to address erosion and amenity problems.
- \* All but one of the vehicle tracks to the Boulder Bay area will be closed to use. The central track will be terminated approximately 100 m west of the coastline and a walking link to the coast walking track will be provided. Facilities such as a carpark will be provided. Tracks to the north of Boulder Bay and to Kangarutha Point will be closed to vehicles. Walking access will be provided from the termination of the northern track to the coastline.
- \* A car park, walking track, steps and lookout platform will be constructed at the White Rock quarry area in association with rehabilitation of the quarry, and erosion control measures will be carried out as needed. The carpark will be constructed in a manner that does not preclude its relocation, and the rehabilitation of the site in the future.
- \* Work with the Tathra Mountain Bike Club to establish a mountain bike track on park (as shown on the Map 2) by linking Games Bay Fire Trail and White Rock Road with a single-track and paralleling White Rock Road with single-track linking up with adjacent mountain bike tracks on private property and vacant crown land.
- \* Ensure that use of the park for the Tathra Enduro Event or other similar events is confined to White Rock Road, Games Bay Fire Trail and the two single tracks for mountain bikes. Parking and staging areas will be located outside the park

boundary and organisers will be required to comply with the consent and the environmental assessment to be undertaken for this activity.

- \* Monitor the condition of the single tracks by mountain bike riders. If these trails start to show signs of heavy use and erosion, consider temporary or permanent closure.
- \* The Hobart Beach camping area will be redesigned to address environmental impact, allow for resting of certain areas to promote regeneration, and improve amenity and disabled access. Consideration will be given to installation of gas barbecues, addressing campground noise, installation of additional toilets, all night safety lighting at amenities, speed regulations and improved signage and information. The camping area will be confined to within the existing area. Works will be carried out as necessary.
- \* The feasibility of environmentally friendly toilet systems will be investigated to replace the present septic system at Hobart Beach camping area and pump out pit toilets at the other locations throughout the park.
- \* Wood barbecues will be progressively replaced with gas in areas where wood collection has a significant impact on surrounding native vegetation communities. Additionally, contractors may be employed to supply wood from outside the park to the camping area.
- \* Work will be undertaken to provide disabled access to the North Tura lookout platform and the Scotts Bay picnic area.
- \* The Service will investigate the need for road speed signage at the camping ground.
- \* The Bournda Island walking track system will be rationalised to reduce impacts.
- \* That section of the Sandy Beach Creek track near the swinging bridge will be relocated further upstream to avoid the need for regular replacement of the bridge after floods.

### **4.3.3 Research**

Research into the area's resources, their maintenance requirements and the impacts of visitors is important for development of appropriate management practices. Important research topics have been included in other relevant sections of this plan.

The park and reserve also provide opportunities for research by outside organisations, particularly for student projects. It is important for the results of research to be provided to the park and reserve managers to assist improvement of management programs.

#### ***Policy***

- \* Bournda National Park and Bournda Nature Reserve will be available for appropriate research.
- \* Researchers will be encouraged to design programs to provide information directly useful for management purposes.
- \* Liaison will be maintained with researchers to obtain as much mutual information and assistance as possible. The results of research will be required to be provided to park and reserve managers.

#### 4.3.4 Professional Fishing

Professional fishing is carried out on Wallagoot Lake over a six month fishing 'season'. Presently access for professional fishing is being gained through the park 150 metre west of the Wallagoot Boat Club at 'Rocky Point' and a cement table has been placed here for cleaning fish. This use is resulting in vegetation damage. Professional fishermen may use the ramp at the boat club.

Licensed eel fishing is carried out on Wallagoot Lake and Bournda Lagoon. The eel fishing operation on Bournda Lagoon has environmental impacts and creates conflicts with recreational users. The Service will seek to have it terminated.

Beach haul fishing is not undertaken along the park's beaches. Vehicle access for fishing would cause vegetation damage and dune instability and create conflict with recreational users.

Professional prawning has been limited on Wallagoot Lake and Bournda Lagoon because of conflicts with recreational use and the environmental impacts of access.

No recreational or professional fishing is allowed on Bondi Lake due to its significant hydrological and environmental features.

#### ***Policy***

- \* Vehicle access for beach haul fishing and other forms of commercial fishing will not be provided in the park.
- \* The Service will liaise with NSW Fisheries over the management of Wallagoot Lake and Bournda Lagoon to ensure that there is a consistent and co-operative approach to its management.

#### ***Action***

- \* The Service will seek to have the eel fishing operation on Bournda Lagoon terminated.
- \* Access to Rocky Point will be closed and rehabilitated and the cement table will be removed.

#### 4.3.5 Management Operations and Non Park Management Facilities

Management facilities located in the park are a meeting/training centre, two residences, a storage area, management tracks (the Trig Fire Trail and Sandy Beach Management Track) and a negotiable route (former Games Bay track).

The nature reserve contains several management tracks and negotiable routes. There is no formal legal vehicle access into the nature reserve from public roads. As the main reason for entry into the reserve is for fire suppression (when entry may be made under the Rural Fires Act) this does not create a problem. Legal access should be obtained, however, if the opportunity arises.

Several of the roads in the park are public roads. The Service is developing a management arrangement with Bega Council regarding maintenance of these roads and those leading to the park. It would be preferable for the public roads within the park to be reserved as part of the park, in order to ensure that road standards are appropriate for a national park and to allow faster closure during fire periods. At present the Service



must approach the Council regarding temporary public road closure and carry out the closure in conjunction with the police. In particular, the public road dedication along the western side of Bondi Lake is inappropriate because of the importance of the lake for wildlife habitat. The road has been closed to use for many years following provision of an alternative route but permanent closure and addition to the park are needed. Public vehicle access to Bournda Lagoon will be maintained.

Access to Bournda Trigonometrical Station is provided via the Trig Fire Trail. A platform above the trig station permits fire observation.

Given the high natural, scenic and recreational values of the park and reserve, no construction of new facilities by other authorities would be appropriate unless they were for purposes of conservation or public enjoyment as provided for in the National Parks and Wildlife Act.

During periods of high rainfall, Wallagoot Lake is opened by the Bega Valley Shire Council to prevent the public road to the Wallagoot Boat Club from flooding. The Service will seek to establish a Wallagoot Lake and Bournda Lagoon Management Committee comprising government stakeholders and interested groups. This committee will develop a lakes management plan to establish an estuary opening plan, and to manage boating, fishing and activities and processes that subject the lake to environmental degradation.

### ***Policy***

- \* Existing management facilities will be maintained.
- \* The two houses will continue to be used as staff residences or for other management purposes.
- \* The area around Bournda Trig will be kept cleared to maintain sight lines for the trig station and observation of fires.
- \* No works or construction of facilities by individuals or other organisations will be permitted unless they are for purposes of conservation, education or public enjoyment of the natural and cultural resources of the park or reserve.

### ***Action***

- \* The Service will seek to have shire roads contained in the park added to the park.
- \* Full time formal management access will be sought for the nature reserve.
- \* The Service will initiate a Lake Management Committee comprising stakeholder groups which will develop a Wallagoot Lake and Bournda Lagoon Management Plan to address issues such as the preparation of an estuary opening plan, boating, fishing and activities and processes that subject the lake to environmental degradation.
- \* The operation of the storage area will be reviewed and it will be removed if no longer needed.

## 5. PLAN IMPLEMENTATION

This plan of management is part of a system of management developed by the National Parks and Wildlife Service. The system includes the National Parks and Wildlife Act, management policies, established conservation and recreation philosophies, and strategic planning at corporate, regional and district levels.

The implementation of this plan will be undertaken within the annual programs of the Service's Eden District. Priorities, determined in the context of district and regional strategic planning, will be subject to the availability of necessary staff and funds and to any special requirements of the Director-General or Minister.

District programs are subject to ongoing review, within which, works and other activities carried out in Bournda National Park and Bournda Nature Reserve are evaluated in relation to the objectives laid out in this plan.

The environmental impact of all development proposals will continue to be assessed at all stages of the development and any necessary investigations undertaken in accordance with established environmental assessment procedures.

Section 81 of the Act requires that this plan shall be carried out and given effect to, and that no operations shall be undertaken in relation to the park or reserve unless they are in accordance with the plan.

No term is proposed for this plan of management. If after adequate investigation, operations not included in the plan are found to be justified, this plan will be amended in accordance with section 75(7) and 76(6) of the Act.

As a guide to the implementation of this plan, relative priorities for identified activities are summarised below:

<b>Activity</b>	<b>Plan ref</b>
<u>High Priority</u>	
* Seek improved management of Merimbula tip	4.1.1
* Control blackberry, tree of heaven and other weeds	4.1.2
* Monitor and manage habitat of little terns	4.1.3
* Undertake fox and wild dog control at Wallagoot Lake	4.1.3
* Prepare fire management plan	4.1.3
* Carry out fuel management and trail maintenance	4.1.4
* Develop Aboriginal heritage management strategy	4.2.1
* Undertake Aboriginal site monitoring	4.2.1
* Provide new vehicle access to Turling Head, car parking, information shelters and beach access	4.3.1,4.3.2
<u>Medium Priority</u>	
* Update weed management plan	4.1.2

- \* Undertake comprehensive fox and rabbit control 4.1.3
- \* Seek protection of Wallagoot Lake islands and intertidal areas 4.1.3
- \* Identify historic sites and prepare management strategies 4.2.2
- \* Prepare conservation plan for Scotts Hut and Bay 4.2.2
- \* Interpret park through Discovery programs, media releases etc 4.3.1
- \* Review directional signage 4.3.1
- \* Close unnecessary tracks to the Boulder Bay area, provide parking and walking tracks 4.3.2
- \* Re-design access, parking and picnic area at boat club 4.3.2
- \* Replace wood barbecues with gas 4.3.2
- \* Work with the Tathra Mountain Bike Club to establish a mountain bike track on park (as shown on the Map 2) by linking Games Bay Fire Trail and White Rock Road with a single-track and paralleling White Rock Road with single-track linking up with adjacent mountain bike tracks on private property and vacant crown land. 4.4.2
- \* Ensure that use of the park for the Tathra Enduro Event or other similar events, is confined to White Rock Road, Games Bay Fire Trail and the two single tracks for mountain bikes. Parking and staging areas will be located outside the park boundary and organisers will be required to comply with the consent and the environmental assessment to be undertaken for this activity. 4.3.2
- \* Monitor the condition of the single tracks by mountain bike riders. If these trails start to show signs of heavy use and erosion, consider temporary or permanent closure. 4.3.2
- \* Investigate need for road speed signage at camp ground 4.3.2
- \* Provide disabled access to Scotts Bay picnic area 4.3.2
- \* Restore White Rock area and provide for carparking 4.3.2
- \* Rationalise Bournda Island walking track system 4.3.2
- \* Close Rocky Point access and remove fish cleaning table 4.3.4
- \* Seek Wallagoot Lake & Bournda Lagoon management plan 4.3.5

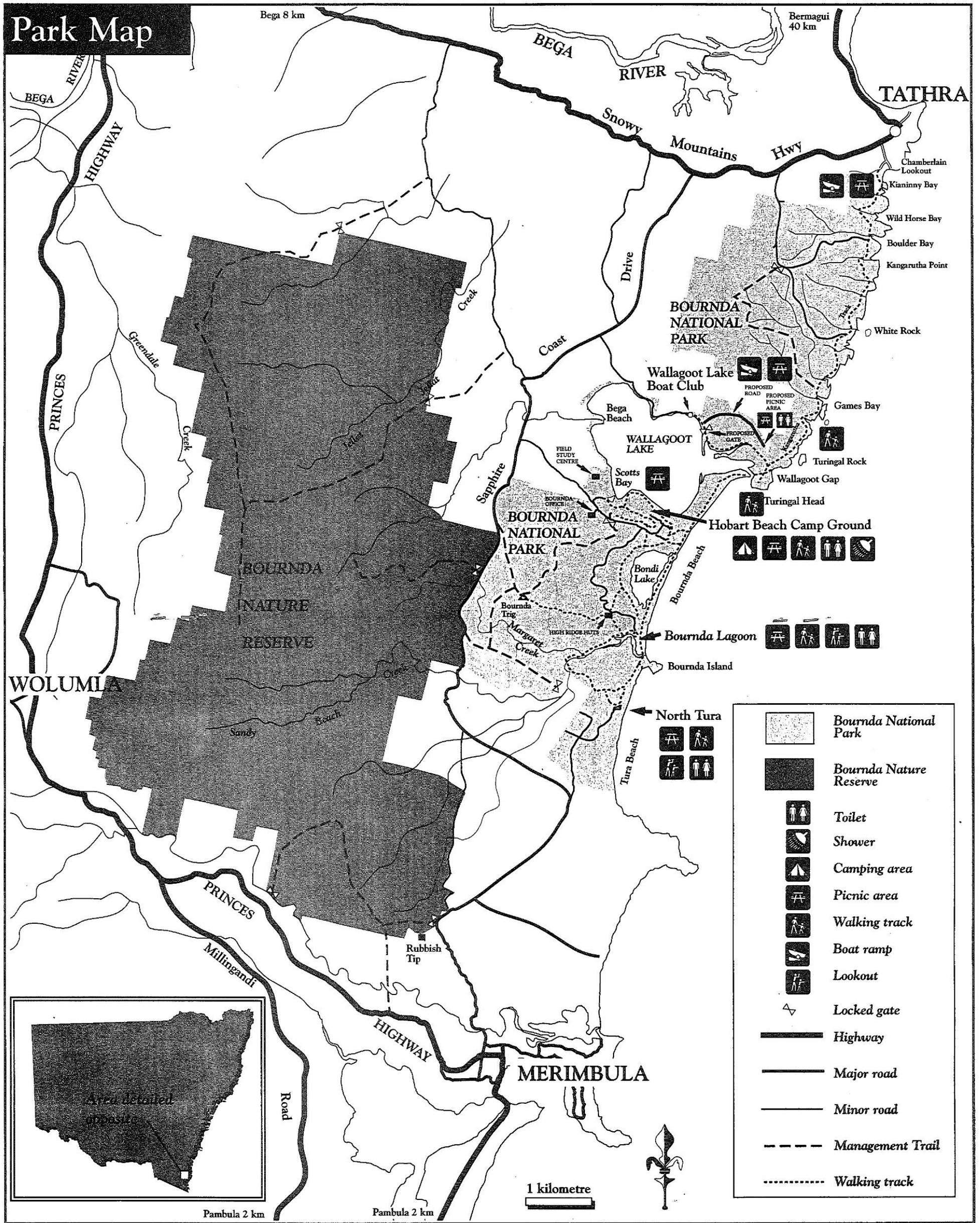
#### Low Priority

- \* Place sliprails on firetrails near Merimbula Tip 4.1.1
- \* Participate in native animal research 4.1.3
- \* Include articles about domestic pets in neighbours newsletter 4.1.3

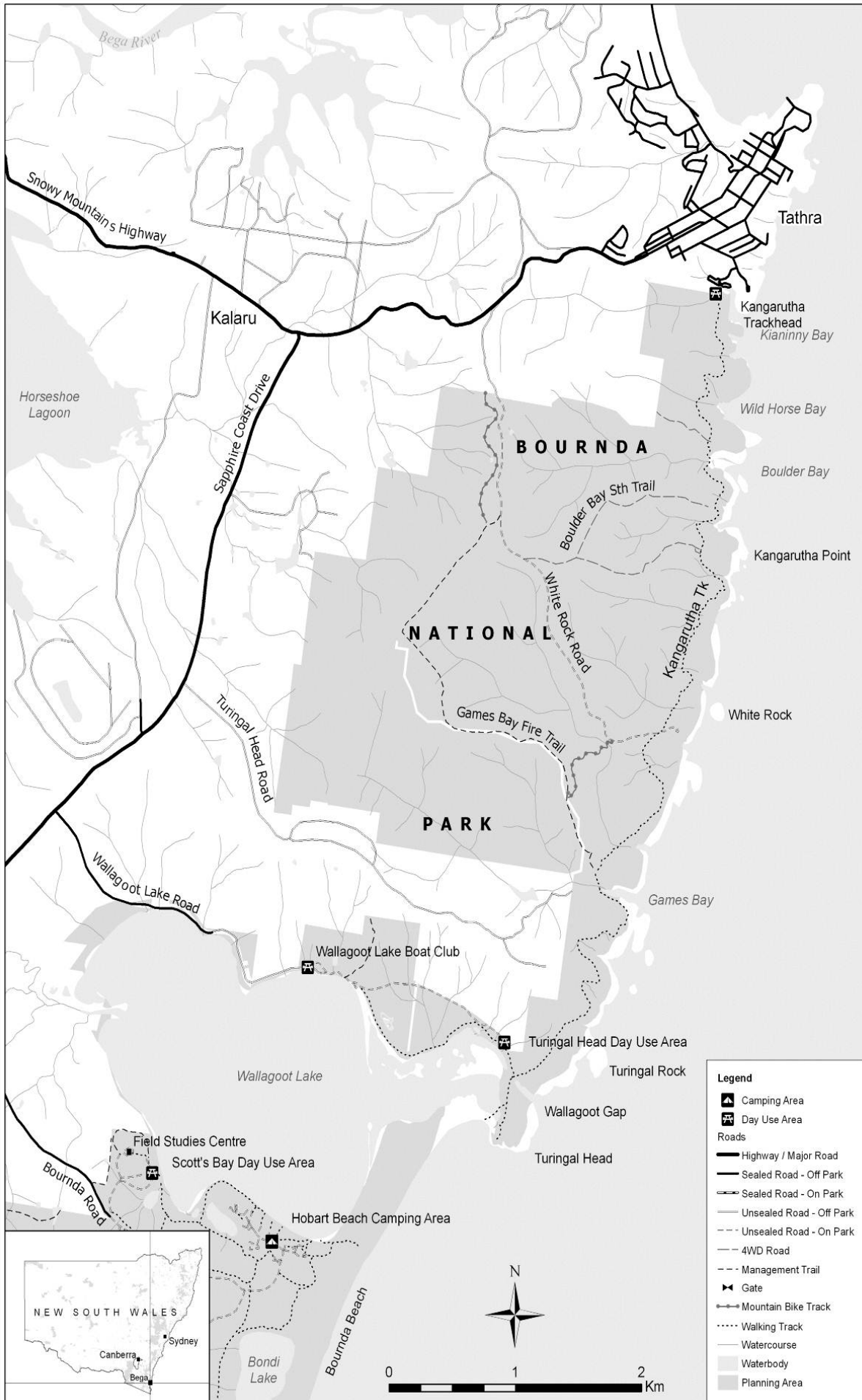
*	Remove plantings north of Scotts Hut	4.2.2
*	Review Scotts Hut and Scotts Bay interpretation	4.3.1
*	Arrange MOU with Field Studies Centre	4.3.1
*	Erect sign explaining origin of FSC	4.3.1
*	Review function and maintenance of High Ridge Hut	4.3.1
*	Re-design Hobart Beach camping area	4.3.2
*	Provide disabled access to North Tura lookout platform	4.3.2
*	Investigate feasibility of environmentally friendly toilets	4.3.2
*	Relocate Sandy Beach Creek track	4.3.2
*	Seek termination of eel fishing on Bournda Lagoon	4.3.4
*	Seek addition of shire roads to park	4.3.5
*	Seek formal management access to reserve	4.3.5
*	Review operation of storage area	4.3.4

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Map 1 – Bournda National Park and Bournda Nature Reserve



Map 2 – Mountain bike tracks in Bournda National Park