



NSW NATIONAL PARKS & WILDLIFE SERVICE

Ben Boyd National Park and Bell Bird Creek Nature Reserve

Plan of Management



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Contents

1.	Location, Gazettal and Regional Setting	2
2.	Management Context	2
2.1	Legislative and Policy Framework	2
2.2	Management Purposes and Principles	3
3.	Key Values and Management Directions	4
3.1	Statement of Significance	4
3.2	Specific Objectives for Ben Boyd National Park and Bell Bird Creek Nature Reserve	5
3.3	Overall Strategy	6
4.	Natural and Cultural Values	7
4.1	Geology, Landforms, Soils and Water Quality	7
4.2	Native Vegetation	9
4.3	Native Animals	11
4.4	Aboriginal Heritage	14
4.5	Historic Heritage	16
5.	Threats	19
5.1	Introduced Species	19
5.2	Fire Management	21
5.3	Climate Change	24
6.	Recreation, Education and Research	25
6.1	Promotion and Interpretation	25
6.2	Recreation and Tourism Opportunities	26
6.3	Monitoring and Research	37
7.	Management Operations	39
7.1	Access	39
8.	Plan Implementation	41
9.	References	45

List of tables

Table 1	Threatened fauna species recorded in the park	12
Table 2	Implementation Table	41

List of figures

Figure 1	Map of Ben Boyd National Park and Bell Bird Creek Nature Reserve	1
Figure 2	Green Cape Light Station Complex	32

Ben Boyd National Park and Bell Bird Creek Nature Reserve Plan of Management

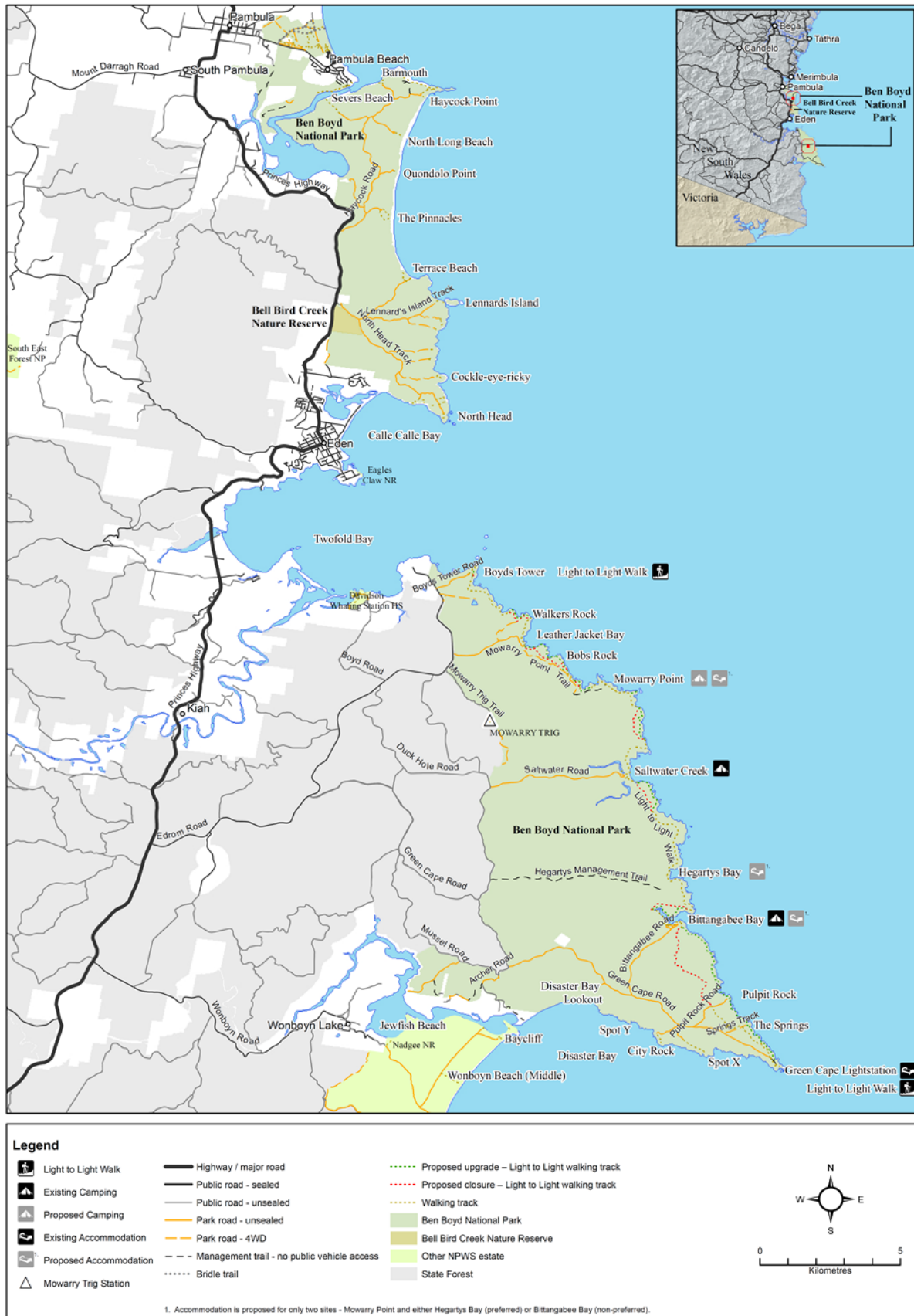


Figure 1 Map of Ben Boyd National Park and Bell Bird Creek Nature Reserve

1. Location, Gazetteal and Regional Setting

Ben Boyd National Park and Bell Bird Creek Nature Reserve are located on the far south coast of New South Wales. The national park is comprised of three sections: a large southern section located south of Eden, a large central area located north of Eden, and a smaller northern area located north of the Pambula River (see Figure 1). The park was first reserved in 1971. Since then there have been a number of additions, including the Pambula extensions in 1999 and 2004, the extension of the southern section of Ben Boyd down to mean low water mark in 2002, and the addition of the former lightstation reserve at Green Cape to the park in 2003. The park currently has an area of 10,485 hectares.

Bell Bird Creek Nature Reserve lies adjacent to the northern section of the park (see Figure 1). It was dedicated in 1965 as The Bell Bird Creek Faunal Reserve and has an area of 53 hectares.

Ben Boyd National Park and Bell Bird Creek Nature Reserve are part of a system of national parks and nature reserves which protect the coastline of southern NSW between Moruya and the Victorian border. These are, from north to south, Eurobodalla National Park, Mimosa Rocks National Park, Bournda National Park, Bournda Nature Reserve, Ben Boyd National Park and Nadgee Nature Reserve. Croajingalong National Park protects a large area of coastal land south of the border.

The park and reserve are bounded to the west by Nullica, Broadwater and East Boyd state forests, part of an extensive system of state forest on the far south coast of New South Wales.

The park and reserve are within the area of Bega Valley Shire Council.

The far south coast is an important holiday destination for visitors from New South Wales, Victoria and the ACT. The towns of Eden, Pambula, Pambula Beach, Merimbula, Wonboyn, Tathra and the nearby coastline receive large numbers of holiday-makers in the warmer months of the year, especially over Christmas and Easter.

A number of place names used in this plan of management (Terrace Beach, Walkers Rock, North Wonboyn Beach and City Rock) do not appear on topographical maps. Each of the sites is referred to by locally known names to facilitate understanding of the plan. Worang Point is referred to as North Head in the plan as it is the name used locally.

2. Management Context

2.1 Legislative and Policy Framework

The management of national parks and nature reserves in New South Wales is in the context of a legislative and policy framework, primarily the National Parks and Wildlife Act 1974 (NPW Act) and Regulation, the Threatened Species Conservation Act 1995 (TSC Act) and the policies of the National Parks and Wildlife Service (NPWS). The policies arise from the legislative background and internationally accepted principles of park management.

Other legislation, international agreements and charters may also apply to management of the area. In particular, the Environmental Planning and Assessment Act 1979 (EPA Act) may require the assessment and mitigation of the environmental impacts of works proposed in this plan.

A plan of management is a statutory document under the NPW Act. Once the Minister has adopted a plan, no operations may be undertaken within Ben Boyd National Park and Bell

Bird Creek Nature Reserve except in accordance with the plan. The plan will also apply to any future additions to Ben Boyd National Park and Bell Bird Creek Nature Reserve. Where management strategies or works are proposed for the national park or nature reserve or any additions that are not consistent with the plan, an amendment to the plan will be required.

2.2 Management Purposes and Principles

2.2.1 National Parks

National parks are reserved under the NPW Act to protect and conserve areas containing outstanding or representative ecosystems, natural or cultural features or landscapes or phenomena that provide opportunities for public appreciation and inspiration and sustainable visitor use.

Under the NPW Act, national parks are managed to:

- conserve biodiversity, maintain ecosystem functions, protect geological and geomorphological features and natural phenomena and maintain natural landscapes
- conserve places, objects, features and landscapes of cultural value
- protect the ecological integrity of one or more ecosystems for present and future generations
- promote public appreciation and understanding of the park's natural and cultural values;
- • provide for sustainable visitor use and enjoyment that is compatible with conservation of natural and cultural values
- provide for sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to conservation of natural and cultural values
- provide for appropriate research and monitoring.

2.2.2 Nature Reserves

Nature reserves are reserved under the NPW Act to protect and conserve areas containing outstanding, unique or representative ecosystems, species, communities or natural phenomena.

Under the Act, nature reserves are managed to:

- conserve biodiversity, maintain ecosystem functions, and protect geological and geomorphological features and natural phenomena
- conserve places, objects, features and landscapes of cultural value
- promote public appreciation, enjoyment and understanding of the reserve's natural and cultural values
- provide for appropriate research and monitoring.

Nature reserves differ from national parks in that they do not have as a management principle to provide for visitor or tourist use.

3. Key Values and Management Directions

3.1 Statement of Significance

Geological, geomorphological and landscape values

Ben Boyd National Park has been listed on the Register of the National Estate for its superb coastal scenery and coastal plant communities including areas of heathland.

The depositional, stratigraphic and structural features of the Upper Devonian rocks of much of the park and reserve are extremely well displayed along the coastline only in Ben Boyd National Park and Nadgee Nature Reserve. These are some of the oldest rocks on the NSW coast.

The Merimbula Bay barrier dunes found in the northern section of the park are regionally significant as one of only four major stationary barriers in southern NSW and an excellent example of this type of formation.

Specific features of geological interest are:

- caliche beds in mudstone west of Haycock Point
- the Pinnacles, a spectacular erosion feature in which soft white sand and its cap of red gravelly clay are actively eroding out of a steep gully
- a basalt dyke containing granite xenoliths south of Lennards Island
- complex extension gashes filled with vein quartz south of Lennards Island
- several sites of Devonian fossils
- folds and sedimentary structures in the cliffs and rock platforms at several locations.

Biological values

The park provides a diverse array of coastal habitats including forest, woodland, heathland, sandy and rocky coastline and estuaries. The dune dry scrub forest and estuarine and floodplain wetlands found in the northern section of the park were recognised as having very high conservation significance in the Eden Comprehensive Regional Assessment process. The Pambula Estuarine Wetland has been listed on the Directory of Important Wetlands compiled by the Commonwealth Department of Environment and Heritage.

A large number of biogeographically significant plant species are found in the park, many of them in the heaths at Green Cape. Saltwater Creek is another area of concentration of significant species.

The leafless tongue orchid *Cryptostylis hunteriana*, which is listed as vulnerable under the Threatened Species Conservation Act, has also been recorded.

Five endangered animal species (listed under the Threatened Species Conservation Act) and 25 vulnerable species have been recorded in the park. Endangered species include the southern brown bandicoot, the green and golden bell frog and the critically endangered hooded plover.

Cultural values

To Aboriginal people, the landscape of Ben Boyd is made up of many features that are interrelated. These include the lands and waters, plants and animals, special places and stories, historical and current uses, and people and their interactions with each other and

place. These features are seen as inseparable and make up what is known as 'Country' to Aboriginal people. Archaeological evidence confirms that Aboriginal people have had a long and continuous association with the Far South Coast region for thousands of years. A large and vibrant population remains in the region today with local Aboriginal communities actively working to maintain traditional knowledge and record and protect cultural heritage.

A large number of Aboriginal sites have been recorded in the park and reserve, mainly middens, but also campsites, rock shelters, scarred trees and long distance travel routes.

The Disaster Bay to Green Cape area is particularly significant for its large number of Aboriginal sites, and its historic, spiritual and contemporary values to local Aboriginal people.

A number of structures related to whaling, farming and lighthouse activities are located in the park.

Boyd's Tower and Green Cape Lightstation have been classified by the National Trust as sites of historical significance. Boyd's Tower is a local landmark. Green Cape Lightstation is listed on the State Heritage Register, as part of the Green Cape Maritime precinct.

Green Cape Lightstation is historically significant as part of a system of Australian lights and because of its association with the NSW Colonial Architect, James Barnet.

Tourism, recreation and educational values

Ben Boyd National Park is located in a relatively undeveloped section of the coastline of southern New South Wales. It provides a variety of recreational and tourism opportunities, particularly along its 47 kilometres of coastline. Tourism interest and visitation to the area is likely to increase in the wake of increased promotion following designation of the surrounding regions of New South Wales and Victoria as Australia's Coastal Wilderness National Landscape. Boyd's Tower and the Green Cape Lightstation are well-known tourist attractions.

Several locations in or adjacent to the park have widely known recreation value. Barmouth is said to have the longest surf break in Australia at certain times. Pulpit Rock is an important site for land-based game fishing as it is relatively close to the continental shelf. Green Cape is well known for scuba diving and snorkelling as it has deep water immediately offshore and has sheltered sites in most wind conditions.

The Light to Light Walk in the southern section of the park provides one of few opportunities for extended walking along a natural coastline. This feeling of being undeveloped is the major attraction for visitors and should be protected.

The two camping areas in the park are very popular as they provide opportunities for basic camping in a natural setting, a different experience to caravan parks in nearby towns.

The park is used for educational visits by schools and tertiary institutions, community organisations and individuals. It provides opportunities for study of coastal processes, ecology, threatened animal species, Aboriginal and historic sites and the environmental impact of recreational use. Whale watching is increasingly popular as is bird watching.

3.2 Specific Objectives for Ben Boyd National Park and Bell Bird Creek Nature Reserve

In addition to the general management principles (refer section 2.2), the management of Ben Boyd National Park and Bell Bird Creek Nature Reserve will be managed in accordance with the following more specific objectives:

- protection of Aboriginal sites from disturbance

- protection of the park and reserve as a sample of the coastal landforms and vegetation communities of the far south coast of New South Wales
- protection of areas of heathland, dune dry scrub forest, estuarine and floodplain wetlands, moist forest communities and old growth areas, and their habitat value for native animals
- protection of habitat and populations of significant species, in particular the threatened southern brown bandicoot, ground parrot and biogeographically significant heathland plants
- protection of significant geological features from disturbance, particularly occurrences of Devonian fossils
- facilitation of Aboriginal cultural activities through the park's Aboriginal culture camps
- conservation of Boyds Tower, Green Cape Lightstation and the Bittangabee store and house ruins
- promotion of visitor, tourist and community appreciation of the natural and cultural values of the park and reserve, particularly geological significance, important historic features, the large number of threatened species and the value of the heathlands
- provision of a variety of sustainable, low impact recreational and educational opportunities along the coastline which encourage appreciation of the natural environment and do not significantly affect habitat values.

3.3 Overall Strategy

The primary management challenge in Ben Boyd National Park and Bell Bird Creek Nature Reserve is the conflict between pressure for recreational use of the coastline and the requirements of the many significant species, fragile vegetation communities and geological features in this area. Recreational use also impacts on Aboriginal sites at a number of locations. Fortunately, visitor numbers are relatively low compared to more heavily populated parts of the NSW coast and impacts can be minimised by planning now for future use.

The major management strategies and programs of this plan of management are:

- control of introduced plant and animal species, in particular pine trees, bitou bush, sea spurge, bridal creeper and other garden escapees, foxes and rabbits
- conservation of populations of threatened species of animals and plants by protecting relevant habitats and ecosystems
- closure of inappropriate vehicle tracks formed by unauthorised use on the coastline, particularly those which impact on heathland
- determination of the ecological burning requirements of the park's plants and animals and implementation of appropriate fire management strategies as outlined in the Ben Boyd Fire Management Plan
- protection and maintenance of Aboriginal sites by track interpretation, surfacing and other works, in consultation with the Aboriginal community and Traditional Owners
- conservation of significant historic sites through survey, assessment, maintenance programs and interpretation and reuse
- promotion of minimal impact recreation use practices
- retention of the low impact and unobtrusive nature of access and facilities
- maintenance of existing recreation facilities, including camping at Saltwater Creek and Bittangabee Bay

- management of the Light to Light Walk and environs as a sustainable, high quality walking experience in keeping with the natural and generally undeveloped feel of the southern coast of the park
- provide conditions on the Light to Light Walk conducive to optimising a wide range of walking experiences, including commercially operated tours
- provide camping and permanent hard-roofed accommodation and associated facilities such as kitchens and toilets, on the Light to Light Walk
- improve accommodation in the keepers' cottages and telegraph station at Green Cape Lightstation, adaptively re-use other buildings and construct new buildings to provide additional accommodation
- promotion of key visitor destinations, especially the Light to Light Walk and the historic precincts of Boyds Tower and Green Cape Lightstation.

4. Natural and Cultural Values

4.1 Geology, Landforms, Soils and Water Quality

Geology

The majority of the national park and nature reserve lies on heavily folded shales, sandstones, siltstones, conglomerates and quartzites of the Devonian Merimbula Group. These are exposed along the cliffs and headlands of the coast as far north as Terrace Beach and from Haycock Point westwards along the Pambula estuary. The folded, colourful Devonian strata are an important landscape feature of the coastline.

Superimposed on the Devonian strata are much younger and softer Tertiary deposits. Sands, gravels, clays, ironstones and quartzites of the Long Beach Formation and Quondolo Formation cover much of the central section of the park and have formed the long sand ridges of Long Beach. Relatively small areas of Tertiary deposits are scattered along the coastline of the southern section.

The northern section covers part of the southern extent of the Merimbula Bay barrier dunes which began accumulating 7000–8000 years ago and stabilised in their present form about 5000 years ago.

Fish fossils have been found in several places along the coastline. The fossils are of a previously unknown species of air breathing lobe-finned bony fish, up to 1.5 m long and a plate covered fish now entirely extinct. They appear to be the remains of schools of fish which were trapped in the mud following drying out of a delta/floodplain system during the Devonian period (360 million years ago). The fossils are of international scientific significance. They are a relic of the era when marine animals were just beginning to leave the ocean to evolve into land-dwellers. These are vulnerable to damage and their locations will not be publicised.

Landform

The landform of the park rises gradually from the coast to a ridgeline along the western boundary. Most of the southern section of the park is below 160 metres above sea level (ASL) while the northern and central sections are below 100 metres ASL. The highest point is at Mowarry Trig (Haycock Hill) at 252 metres ASL. Slopes are steep in a number of locations, particularly east of Haycock Hill and along the fall into Disaster Bay.

Numerous watercourses drain from the coastal ridge within the park. Most are intermittent. Small estuarine lagoons have formed on Saltwater and Woodburn Creeks.

A number of freshwater wetlands have formed in poorly drained areas, primarily along Woodburn and Bittangabee Creeks and behind the dunes to the north of Pambula Beach. An ecologically important estuarine wetland is located adjacent to Pambula Wetlands and Heritage Reserve in the northern section of the park.

The northern coastline features long sandy beaches but south of Terrace Beach much of the park is edged by cliffs broken by small bays, with few beaches.

A small island, Lennards Island, is part of the park. The rock platform connecting the island to the mainland is exposed at low tide.

The Pinnacles is an erosion feature formed in the finely mottled well-lateritized Pinnacles Lens of the Quondolo Formation. It consists of cliffs of soft white sand capped with a layer of red, gravelly clay. The Pinnacles forms the side of a steep gorge that contains features typical of areas of high drainage density.

Soils

Most of the park's soils are shallow, sandy and contain large amounts of humus. They are relatively unstable and erodible when disturbed.

Soils formed on the Tertiary deposits are sandy or gravelly and of low fertility. These soils are also easily eroded.

Surface erosion is occurring at some recreation facilities. Minor works to correct this, such as track surfacing, are in section 6.2 of this plan.

A number of unauthorised vehicle tracks and clearings along the coastline are causing erosion. Some of these will be closed and rehabilitated (see section 6.2).

Water quality

Water quality is generally good as almost all watercourses are contained within the park or arise within state forest. Roads and tracks are the main source of sediment and other pollution. Park toilets must be designed to prevent groundwater pollution.

Groundwater in unconsolidated sand deposits in the central section of the park is potentially vulnerable to pollution from the Eden garbage tip. Other impacts of the tip are discussed in following sections of the plan.

Total catchment management provides an umbrella framework to aim for, amongst other matters, cleaner water, less soil erosion, improved vegetation cover, the maintenance of ecological processes and a balanced and healthier environment. It also provides a focus to balance conservation needs and development pressures and encourages a more aware and involved community. An important means of achieving these aims is the support of catchment management authorities at a local level. The park and reserve are within the area of the Southern Rivers Catchment Management Authority.

Desired outcomes

- All works are designed and undertaken in a manner which minimises impacts on fossils and other geological features, soil erosion and water pollution.

Management response

- A check will be made for fossils before and during activities that involve disturbance of Devonian rocks. Facilities, including walking tracks, will not be located close to fossil beds and the location of fossil sites will not be publicised.
- Ongoing liaison will be undertaken with Bega Valley Council regarding management of the Eden rubbish tip. The NPWS will seek management practices that minimise leaching, weed spread, wind blown paper and fire risk.
- All toilets will be environmentally friendly, self-contained systems.
- Where erosion has been accelerated by human activity or is threatening significant habitats or other values, appropriate control measures will be undertaken.

4.2 Native Vegetation

Most of the park is covered by open forest and woodland. Small areas of tall open forest occur. Dominant trees on the Devonian strata are red bloodwood *Corymbia gummifera* and blackbutt *Eucalyptus pilularis* in the central section, and silvertop ash *E. sieberi* in the south. Other trees include brown stringybark *E. baxteri*, mountain grey gum *E. cypellocarpa*, coast grey box *E. bosistoana*, swamp gum *E. ovata*, ironbark *E. tricarpa*, manna gum *E. viminalis* and woollybutt *E. longifolia*. The understorey includes black oak *Allocasuarina littoralis*, large-leaf hop-bush *Dodonaea triquetra*, coast tea-tree *Leptospermum attenuatum*, tree broom-heath *Monotoca elliptica*, Port Jackson pine *Callitris rhomboidea*, black wattle *A. mearnsii*, coast banksia *Banksia integrifolia*, grass tree *Xanthorrhoea australis*, shrubby velvet bush *Lasiopetalum macrophyllum* and blanket-leaf *Bedfordia arborescens*. Woollybutt commonly occurs in pure stands in the southern section of the park, with little understorey.

Deep sandy soils in the central section of the park support stands of rough-barked apple Angophora floribunda while the northern section contains large areas of dune dry scrub forest dominated by blackbutt and red bloodwood. There are also areas of woollybutt and forest red gum *E. tereticornis*, which is significant as this species is depleted in its naturally occurring range.

Close to the coast is a closed scrub/woodland dominated by giant honey-myrtle *Melaleuca armillaris* with a variety of other shrubs including large-leaf hop bush, burgan *Leptospermum phylloides*, coast banksia and Sydney green wattle *Acacia decurrens*.

Significant estuarine and floodplain wetlands near Pambula support a number of vegetation communities, particularly saltmarsh *Sclerostegia arbuscula* and *Sarcocornia quinqueflora* and mangrove woodland of *Avicennia marina*.

A number of perched swamps feed Woodburn and Bittangabee Creeks in the southern section. The swamp supports species including *Bauera rubioides*, *Xyris gracilis*, *Melaleuca squarrosa*, *Sprengelia incarnata* and *Mimulus repens*.

Small pockets of warm temperate rainforest can be found in moist gullies adjacent to Disaster Bay and along Bell Bird Creek in the nature reserve. Trees include lilly pilly *Acmena smithii*, umbrella tree *Polyscias murrayi*, sassafras *Doryphora sassafras*, scentless rosewood *Synoum glandulosum*, cabbage tree *Livistona australis*, smooth mock olive *Notelaea venosa* and sweet pittosporum *Pittosporum undulatum* (Keith and Sanders, 1990). Shrubs and vines include bolwarra *Eupomatia laurina*, *Rubus hillii*, sandpaper fig *Ficus coronata*, muttonwood *Rapanea howittiana*, *Smilax australis* and *Marsdenia rostrata*. A number of ferns are common including tree fern *Cyathea australis*.

Areas of closed heath and closed scrub communities occur on most of the headlands and above clifflines, widening out south of Saltwater Creek. A particularly extensive area is at Green Cape. Typical plants include dwarf oak *Allocasuarina stricta*, silky hakea *Hakea dactyloides*, coast westringia *Westringia fruticosa*, common heath *Epacris impressa*, white

kunzea *Kunzea ambigua*, Bossiaea spp., hop bitter-pea *Daviesia virgata*, *Hibbertia* spp., daphne heath *Brachyloma daphnoides* and small crowea *Crowea exalata*.

The heathlands of the park are highly significant because of the restricted occurrence of coastal heaths and their importance for many plant and animal species including a number of threatened species. The park's heaths support good populations of the vulnerable striated fieldwren *Calamanthus fuliginosus* and may be a stronghold for this species (Baker, 1994).

Special attention will be given to protection of the heathlands through closure of unauthorised vehicle tracks, rehabilitation of redundant walking routes and the exclusion of new facilities from intact heathland unless no practical alternatives are available.

In circumstances where no practical alternatives are available to impacting on heath, mitigation and offset measures will be implemented. As a minimum these will include providing low impact ground treatments where possible (such as raised boardwalks) and/or rehabilitation of an equivalent amount of disturbed heath nearby. Additional conditions from environmental impact assessment and approval outcomes may apply. Where practicable, tracks and trails no longer required for public recreation or park management and not on the plan of management map will be closed. The natural habitat values of heathland will also be promoted to the visiting public (see sections 6.1 and 6.2).

A large number of plants are found at the limits of their natural distribution in the park. Blackbutt, plum pine *Podocarpus spinulosus*, *Daviesia acicularis*, *Daviesia corymbosa*, *Haemodorum planifolium*, *Zieria pilosa*, she-oak *Allocasuarina distyla* and *Lasiopetalum parvifolium* are at the southern limits of their ranges in the park. Brown stringybark, *Helichrysum obtusifolium*, furze hakea *Hakea ulicina*, *Laxmannia sessiliflora*, *Lepidosperma semiteres*, silk tea tree *Leptospermum myrsinoides*, *Restio tetraphyllus* ssp. *tetraphyllus* and *Xanthosia pusilla* reach their northern limits.

Baeckea ramosissima ssp. *prostrata*, sticky cassinia *Cassinia uncata*, *Cryptandra ericoides*, *Disphyma australe*, *Daviesia alata*, *Gleichenia rupestris*, *Isopogon prostratus*, *Isotoma fluviatilis* ssp. *australis*, *Goodenia humilis*, *Hibbertia serpyllifolia*, *Lepyrodia scariosa*, *Mazus pumilio*, *Notothixos subaureus*, olax *Olox stricta*, *Pultenaea paludosa*, *Plantago hispida*, bearded greenhood *Pterostylis plumosa*, *Schoenus moorei*, *Sticherus flabellatus*, *Symphionema paludosum* and *Villarsia reniformis* are regionally rare plants occurring in the park. The last is an unusual coastal occurrence.

As mentioned earlier, the leafless tongue orchid *Cryptostylis hunteriana*, which is listed as vulnerable under the TSC Act, has also been recorded. A Priorities Action Statement has been prepared that sets out strategies for the recovery of the leafless tongue orchid.

A large number of the biogeographically significant plant species occur in the heathlands. These are affected by unauthorised vehicle use on the heathlands. Fire at suitable frequencies is an important requirement of many plant species and of the heathlands but the precise requirements of the vegetation communities and significant species of the park are not well known. Research and development of a fire management plan are provided for in section 5.2.

Thirty to fifty percent of the northern section is mature forest, essential to many species of hollow dependant fauna. The central and southern sections, however, were formerly state forest and subject to logging. There are consequently few very large trees remaining in these areas, but a natural vegetation structure will gradually return. Removal of pines planted for forestry purposes is discussed in section 5.1.

Large areas at Haycock Point and Mowarry Point were formerly cleared for agricultural use. Some natural regeneration is occurring and has been assisted by planting programs.

The central and southern sections of the park lie adjacent to extensive areas of state forest. The small northern section, however, is fragmented and relatively isolated, with disturbed

links to other bushland areas. A wildlife corridor study will be undertaken to identify and enhance these links (see section 4.3).

Firewood collection for domestic purposes occurs illegally in the central and northern sections of the park adjacent to Eden and Pambula, resulting in vegetation damage. Vehicle entry into the park off Government Road near Eden is via a track on the park boundary. The agreement of the adjacent landowner will be sought to prevent entry by gating the track. At Pambula there are a number of old vehicle tracks that were not formally constructed and are used for illegal firewood collection. These tracks serve no recreation or management purpose and will be closed to public use.

Desired outcomes

- Native vegetation is managed to:
 - maintain floristic and structural diversity
 - conserve threatened or uncommon communities and species
 - maximise habitat values for native animal species.
- Emphasis will be placed on the protection of heathland, tall open forest and rainforest communities, and biogeographically significant plant species.
- Regeneration of areas previously cleared or grazed is encouraged where they are not needed for recreational or management purposes.
- Ecological integrity of estuarine and floodplain wetlands are maintained through cooperative management with adjoining neighbours and key stakeholders and through involvement in the local Catchment Management Authority.

Management response

- Ongoing weed control programs will be continued to help maintain the ecological integrity of the vegetation of the park.
- Research programs associated with the heathland areas of the park will be initiated to assist in management decisions, particularly in relation to fire management.
- The agreement of the adjacent landowner to gate the vehicle track that provides access into the park off Government Road, Eden will be sought.
- Vehicle tracks not essential to public access or management purposes will be closed and rehabilitated.
- Implement relevant actions in the Priorities Action Statement to protect the leafless orchid.

4.3 Native Animals

The national park and nature reserve support a diverse bird population. Nearly 150 species of birds have been recorded in the park and reserve. Of these 48 are waterbirds, including many seabirds observed offshore. Species include the critically endangered hooded plover *Thinornis rubricollis*, pied oystercatcher *Haematopus longirostris*, Australasian shelduck *Tadorna tadornoides*, great cormorant *Phalacrocorax carbo*, red-capped plover *Charadrius ruficapillus*, and white-fronted tern *Sterna striata*. Commonly observed terrestrial birds include the crimson rosella *Platycercus elegans*, white-throated treecreeper *Cormobates leucophaea*, brown thornbill *Acanthiza pusilla*, white-browed scrubwren *Sericornis frontalis*, New Holland honeyeater *Phylidonyris novaehollandiae* and eastern yellow robin *Eopsaltria australis*. Several raptors have been recorded including the white-bellied sea-eagle *Haliaeetus leucogaster*, peregrine falcon *Falco peregrinus*, whistling kite *Haliastur sphenurus* and nankeen kestrel *Falco cenchroides*.

Fifty native mammals are known to occur in the park or reserve. As well as the more commonly occurring mammals of the east coast, species recorded include the dusky antechinus *Antechinus swainsonii*, white-footed dunnart *Sminthopsis leucopus*, eastern pygmy possum *Cercartetus nanus*, sugar glider *Petaurus breviceps* and several species of bat.

Fifteen reptile and two frog species have been recorded within the park. Species include the eastern long-necked tortoise *Chelodina longicollis*, black rock skink *Egernia saxatilis*, white-lipped snake *Drysdalia coronoides*, diamond python *Morelia spilota* and common eastern froglet *Crinia signifera*.

All records of native animals (and plants) are collected and stored on the NSW Wildlife Atlas, a statewide data base established by the NPWS. Information is built up about locality, habitat and breeding records and used to assist management of native wildlife.

Threatened species

One critically endangered bird, four endangered animal species and 25 vulnerable species have been recorded in the park:

Table 1 Threatened fauna species recorded in the park

Common name	Scientific name
Critically endangered species	
Hooded plover	<i>Thinornis rubricollis</i>
Endangered species	
Southern brown bandicoot	<i>Isodon obesulus</i>
Green and golden bell frog	<i>Litoria aurea</i>
Regent honeyeater	<i>Anthochaera phrygia</i>
Gould's petrel	<i>Pterodroma leucoptera leucoptera</i>
Vulnerable species	
Ground parrot	<i>Pezoporus wallicus</i>
Striated fieldwren	<i>Calamanthus fuliginosus</i>
Square-tailed kite	<i>Lophoictinia isura</i>
Powerful owl	<i>Ninox strenua</i>
Sooty owl	<i>Tyto tenebricosa</i>
Masked owl	<i>Tyto novaehollandiae</i>
Olive whistler	<i>Pachycephala olivacea</i>
Glossy black cockatoo	<i>Calyptorhynchus lathami</i>
Pied oystercatcher	<i>Haematopus longirostris</i>
Sooty oystercatcher	<i>Haematopus fuliginosus</i>
Providence petrel	<i>Pterodroma nigripennis</i>
Wandering albatross	<i>Diomedea exulans</i>
Fleshy-footed shearwater	<i>Puffinus carneipes</i>
Great pipistrelle	<i>Falsistrellus tasmaniensis</i>
Common bent wing bat	<i>Miniopterus australis</i>

Common name	Scientific name
Large-footed mouse-eared bat	<i>Myotis adversus</i>
Eastern little mastiff bat	<i>Mormopterus norfolkensis</i>
Greater broad nosed bat	<i>Scoteanax rueppellii</i>
Yellow-bellied glider	<i>Petaurus australis</i>
Tiger quoll	<i>Dasyurus maculatus</i>
Koala	<i>Phascolarctos cinereus</i>
Long-nosed potoroo	<i>Potorous tridactylus</i>
Brush tailed phascogale	<i>Phascogale tapoatafa</i>
White-footed Dunnart	<i>Sminthopsis leucopus</i>

The threatened species tend to be concentrated in areas of tall open forest (powerful owl, masked owl, sooty owl, yellow-bellied glider), coastal heathlands (ground parrot and striated fieldwren) and along the coastline (pied oystercatcher, sooty oystercatcher, fleshy-footed shearwater, hooded plover). Other recordings are scattered through open forest and woodland areas.

The concentration of visitor use along the coastline creates a potential conflict with protection of threatened animal species through impacts such as infrastructure development (roads etc.) and associated clearing. Impacts can best be minimised by controlling vehicle access and ensuring that facilities are managed to be sustainable and small scale. Promoting appreciation of park values and use of minimal impact recreation techniques is also important. Other major requirements for conservation of threatened species are control of introduced predators (covered in section 5.1) and an appropriate fire regime (see section 5.2).

Under the Threatened Species Conservation Act a recovery plan may be prepared for endangered and vulnerable flora and fauna. The purpose of a recovery plan is to promote the recovery of a threatened species, population or ecological community to a position of viability in nature. In addition, a Priorities Action Statement has been prepared that sets out strategies for the recovery of threatened species, populations and ecological communities. Recovery plans and priority actions will be implemented in Ben Boyd National Park and Bell Bird Creek Nature Reserve where relevant.

The endangered eastern bristlebird *Dasyornis brachypterus* may be present in the heath and woodlands of the park. The eastern bristlebird is confined to three disjunct areas: in the vicinity of the NSW/Queensland border, the Illawarra region and the vicinity of the NSW/Victorian border. Surveys in 1994 and 1995 failed to detect the species in the park but it has been recorded nearby in Nadgee Nature Reserve and there is a 1980 record in East Ben Boyd State Forest two kilometres west of the park. Eastern bristlebirds may be present in the park in very low numbers.

A regionally significant population of the yellow-bellied glider *Petaurus australis* is found throughout the forests and woodlands of the northern section. Further, this section of the park provides habitat suitable for a variety of other threatened species such as the white-footed dunnart *Sminthopsis leucopus*, yellow-bellied sheath-tail-bat *Saccolaimus flaviventris* and Australasian bittern *Botaurus poiciloptilus*. Maintenance of wildlife corridors will be vital for conservation of threatened species in this section of the park.

Since 2010, the nationally endangered southern brown bandicoot *Isodon obesulus obesulus* has been widely recorded throughout the southern section of Ben Boyd National Park. The southern section of Ben Boyd is now not only considered to be the stronghold for the species in the region but also in the State.

Desired outcomes

- The diversity and high quality of habitats for native animals occurring in the park and reserve is conserved.
- Priority is given to management strategies or programs which 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.
- Scientific research is encouraged to provide additional information about species occurring in the park and to assist in guiding management decisions.

Management response

- Specific measures included in recovery plans or priority action statements for threatened animal species occurring in the park and reserve will be implemented.
- Periodic surveys will be undertaken for threatened species, such as the hooded plover, eastern bristlebird and southern brown bandicoot, to monitor populations in the park.
- Continue sandplot monitoring program to survey for presence/absence of critical weight range species and feral animals.
- A wildlife corridor and yellow-bellied glider study will be undertaken for the northern section of the park to identify wildlife corridors which provide important links between the park and adjoining bushland areas. These corridors will be enhanced where necessary and possible.
- The movement of native fish species will be considered and, if feasible and necessary, crossings will be upgraded during trail works to facilitate fish movement.

4.4 Aboriginal Heritage

The land and sea surrounding or including Ben Boyd National Park is important to past and present Aboriginal people. Aboriginal people from Twofold Bay and other parts of the south coast and hinterland, represented by language groups or clans such as the Dyirringan, Bidawal, Dthawa (or Thawa, Daura or Thau-aira), Maneroo, Kudingal (or Kunnerkwell), gathered to celebrate, trade, share resources or exchange marriage partners. Today Aboriginal people, including elders, community members from other areas, and the Eden Local Aboriginal Land Council, still recognise connections with the land in Ben Boyd National Park. They have an interest in management of the park's Aboriginal heritage and other aspects such as access for cultural activities and ecotourism purposes. In particular the Aboriginal community requires access to the coastline to undertake traditional practices, and to promote culture awareness by conducting tours.

Some 120 Aboriginal sites have been recorded in the park and reserve and further survey is likely to reveal more. Focused work in the southern section of Ben Boyd National Park has recorded around 70 new sites (Feary & Niemoeller 2019). Most known sites are middens but some surface campsites/artefact scatters, rock shelters, scarred trees and a stone arrangement have also been found. A site in the nature reserve has been tentatively identified as axe grinding grooves. A number of sites have research potential (Purcell, 1997, Feary & Niemoeller 2019).

The middens contain the shells of shellfish species collected by Aboriginal people from the rock platforms, reefs and estuaries along the park's coastline. Excavation of a midden on the Pambula River found as well as oyster and mussel shells, fish bones and the bones of sea mammals, kangaroos, wallabies, potoroos, bandicoots, possums and gliders. Radiocarbon dating indicated that the site had been used for over 3,000 years. From 2,300 years ago the range of fish resources used expanded to marine species which would have required the

use of canoes. This may have reflected increasing population and therefore pressure on resources. Bone tools and stone artefacts were found including cores, flakes and resharpening fragments, indicating that the mound was an occupation site (Sullivan, 1980).

The middens and campsites are concentrated on headlands and estuaries and are at risk from natural processes and recreational use in several locations, including from boat wash and boat landings. Works such as surfacing and track hardening or re-routing have been undertaken to protect threatened sites and are needed in a few more locations (provided for in section 6.2). Information will be provided in suitable locations to promote awareness of the importance of protecting Aboriginal sites.

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 NPWS 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 NPWS will be promoted and presented.

In order to cater for the aspirations of Aboriginal people for opportunities to carry out cultural activities in the park and along the coastline generally, an area at Haycock Point has been set aside as a cultural camp. The camp was one of the outcomes negotiated under the Eden Regional Forest Agreement, which commits the NPWS to providing access to reserve areas for traditional and contemporary activities. Haycock Point has been chosen to provide such an opportunity as it was a cleared area with existing vehicle access, has rich evidence of former Aboriginal use and has been used for fishing by Aboriginal people in modern times. A shelter shed, BBQs, water tanks, toilets, fireplaces have been provided. The camping area will be available for use by all Aboriginal people of the far south coast.

Whilst the entire landscape of the parks is culturally significant, the Disaster Bay to Green Cape area is particularly significant for its large number of Aboriginal sites, and its historic, spiritual and contemporary values to local Aboriginal people (Donaldson 2019).

Another cultural camp may be established in the southern section of the park following environmental impact assessment and development approval. The location will be determined in consultation with relevant community groups and Traditional Owners. Like the cultural camp at Haycock Point, the site would be available for use by all Aboriginal people of the far south coast.

The northern section of the park surrounds an area of naturally vegetated Aboriginal freehold land. Access to this area is through the park. Cooperative management arrangements with regard to issues such as pests and bushfire would be beneficial.

The park is named after Benjamin Boyd, who played an important role in the early development of the local area. The northern section surrounding Pambula Beach and the Pambula Lake river mouth had little association with Benjamin Boyd and will be assessed for a possible renaming or dual naming to reflect its past and present association with Aboriginal people.

Desired outcomes

- The NPWS supports the Eden Local Aboriginal Land Council, other relevant Aboriginal community groups and Traditional Owners in the preservation, continuance and promotion of their cultural lore. Aboriginal people will be able to carry out activities in the park related to maintenance of Aboriginal culture.
- Any such activities must comply with the NPW Act and policies and this plan of management and have minimal environmental impact.

- Aboriginal people of the far south coast are permitted to camp for short periods for cultural purposes in the park's cultural camping areas. Use of the areas will continue to be by agreement between NPWS and the Aboriginal people. Facilities at each site may include a shelter shed, BBQs, water tanks, toilets, fireplaces and delineated camp sites.
- Aboriginal sites are protected from disturbance or damage by human activities.
- All works with the potential to impact on Aboriginal sites are preceded by an archaeological assessment.
- The location of Aboriginal sites is not be publicised except where:
 - the agreement of the Eden Local Aboriginal Land Council and other relevant Aboriginal community organisations has been obtained
 - a conservation study has been prepared and any management works necessary to protect the site from damage have been implemented
 - the site will be interpreted to promote public knowledge and appreciation of Aboriginal culture.

Management response

- The Eden Local Aboriginal Land Council and other relevant Aboriginal community organisations and individuals will be consulted and actively involved in all aspects of management of Aboriginal sites and values in the park and reserve.
- Subject to the concurrence of the Aboriginal community, information will be included in brochures, and on signs at sites such as Haycock, Severs Beach, Disaster Bay, Pinnacles Saltwater and Bittangabee, about Aboriginal use of the area and the importance of protecting Aboriginal sites. Actual Aboriginal sites will not be identified unless consistent with the above outcome.
- Cooperative management arrangements will be developed with the Eden Local Aboriginal Land Council with regard to issues such as fire suppression, pest control and access to Aboriginal lands adjacent to the park in the Pambula Beach area.
- Midden sites located at Lennards Island, Haycock Point and along the Pambula River, particularly around Severs Beach, will continue to be monitored and mitigation works will be undertaken as required.
- Key boat landing sites that are affecting Aboriginal sites will be identified, impacts assessed, priorities determined, and protection works undertaken.
- Ways of promoting awareness of Aboriginal site protection amongst boaters will be investigated and liaison undertaken with NSW Waterways on means of controlling boating activities along the Pambula River and Pambula Lake to minimise the effect on Aboriginal sites.
- Options for renaming part of Ben Boyd National Park in the Pambula Beach area, to reflect its past and present importance to Aboriginal people, will be investigated.

4.5 Historic Heritage

It is said that George Bass landed on the northern boundary of the park near the mouth of the Pambula River in 1797. Matthew Flinders moored in Disaster Bay in 1802 and named the bay following the loss of eight of his men after they went ashore for water.

European occupation of the park area dates from the 1840s when the Imlay family began whaling and grazing. An unfinished house at Bittangabee Bay is thought to have been built by the Imlay brothers. Boats stationed here and at Mowarry Point could attack northward-migrating whales before the crews at Twofold Bay, giving the Imlay's a commercial advantage. Benjamin Boyd sent a whaling boat to Bittangabee in 1844 to compete with the

Imlay crews. He took over the site in 1848 after tragedy hit the Imlay family. Stone footings and a landing behind the beach at Mowarry Point may be a relic of whaling use.

Boyd was a London stockbroker who came to New South Wales in 1842 with visions of establishing a commercial empire. By 1844 he was one of the largest landholders in the colony, with extensive interests in the Monaro and Riverina. Boyd envisaged a bustling settlement at Twofold Bay and established Boyd Town as a port to serve his Monaro properties. This was followed by a whaling station at East Boyd. Boyd's financial empire collapsed after only seven years and he left Australia in 1849.

Boyd's Tower at Red Point on the southern shore of Twofold Bay stands as a monument to Boyd's brief reign. His name is inscribed at the top. The tower was originally built as a lighthouse from sandstone quarried in Sydney. Because of a dispute with the government, the lighthouse never came into official service and was mainly used for spotting whales. After Boyd's departure, George Davidson used the tower for whale watching. A conservation management plan was prepared for the tower in 1988 (Bickford, Blair and Freeman, 1988).

The Green Cape Lightstation complex at the southern end of the park consists of the lighthouse, head and assistant keepers residences, several sheds and nearby quarry and garden/tip site. Most of the buildings are in excellent condition. The lightstation was designed by Colonial Architect James Barnet. It is a major early example of the use of mass concrete and is significant for the architectural expression of its structural method through the adoption of an unusual form of an octagonal tower on a square base. It is also important for the display of corbelling, a domed oil store and distinctive balcony railing which are characteristic of James Barnet's lighthouse designs (Nelson, Miller & Sawyer, 1993). The lighthouse commenced operation in 1883 and, at 29 metres high, was the largest mass-concrete structure built in New South Wales up until that time. The complex came under the management of the NPWS in 1997 after an automated light tower replaced the original tower.

In 2013 the Green Cape Maritime Precinct was listed on the State Heritage Register. At the centre of the tightly knit complex of buildings is the Green Cape Lighthouse, described as a notable lightstation in the 'highway of lights' that were erected along the NSW coastline during the late nineteenth century. The curtilage of the listing encompasses not only the Green Cape Lightstation complex, but also the Ly-ee-Moon shipwreck (described below), the shipwreck cemetery and the southern shoreline of Bittangabee Bay and extends 0.5 nautical miles out to sea. The statement of significance supporting the listing states that although the 1880s were the most productive period for the construction of lighthouses in New South Wales, Green Cape was one of the earliest and most extensive concrete constructions ever attempted in Australia.

Construction of the lighthouse was possible because of the development of Bittangabee Bay as a trans-shipment point to receive materials, equipment and labour for the construction. A concrete storehouse at Bittangabee Bay serviced the lighthouse during construction and operation. Supplies brought by boat were transported to the lighthouse by a wooden tramway until 1920. Bridges remain from the tramway, including a timber and stone bridge across Te-Miti Creek, but much of its structure has been lost. Adjacent to the store are the foundations of the wharf. The roof of the store has been removed and the building is in poor condition. The Te-Miti Creek Bridge collapsed in recent years.

Many shipwrecks occurred around Green Cape before and after construction of the lighthouse. The best known is the wrecking of the steamer Ly-ee-Moon which sank in 1886 with the loss of approximately 76 lives. Some of the victims are buried in a graveyard near the lightstation.

Other remaining historic features in the park include:

- quarries and a ruined lime kiln associated with the house at Bittangabee

- benches, foundations, stone building blocks, stone well and other material remaining from agricultural use at Mowarry Point, and associated road and bridge remains
- remains from former farm buildings, a stone well and earth wall dam at Haycock Point, some dating from the late 19th century and others from the 1970s
- hut sites or ruins near North Head, Saltwater Creek, Hegartys Bay, Pambula Lake, Severs Beach and Green Cape (remains include clearings, chimney rubble, bricks, corrugated iron, litter, exotic plants)
- a corrugated iron shelter at Disaster Bay
- post and rail fences at Leather Jacket Bay and near Skelton Hill Trig; the former is in good condition
- the route of a telegraph line associated with the Green Cape Lightstation;
- evidence of an old coast road between Bittangabee and Mowarry Point, date uncertain but possibly to the 1840s
- a shell grit mining site at Barmouth; no physical remains
- a winch set in a concrete block at Mosquito Bight; possibly a 19th century wharf site
- a tree with remains of a platform at Barmouth, used by trawler crew as a fish lookout in the 1950s
- a possible timber mill site near the southern end of Long Beach and a bush mill site near North Head (heartwood, offcuts and sawdust heaps remain)
- the 1950 wreck of the freighter Empire Gladstone at Haystack rock, with debris strewn across the point.

Little is known about the former use of most of these features, particularly the hut ruins. Together, however, they illustrate the diverse history of the park for forestry, agriculture, whaling, lightstation and possibly retreat or recreational activities. Recording and assessment of each of the historic places is needed, followed by development of conservation strategies for significant features.

A new conservation plan has been prepared for the Green Cape Lightstation complex, including the Bittangabee ruins (Riddell Architecture, 2010). It sets out policies and works for maintenance of the station's heritage values (see sections 6.1 and 6.2 for further discussion).

Desired outcomes

- The historic places of the park and reserve are conserved and maintained in accordance with the Burra Charter (Australia ICOMOS).
- Boyds Tower is maintained in accordance with the approved conservation management plan.
- The house ruins and store at Bittangabee are conserved in accordance with the adopted conservation plan.
- The Green Cape lighthouse, residences, generator shed, workshop/garage (former stables), flag locker and former telegraph office are conserved in accordance with the conservation management plan, retaining the remaining early 1880s fabric and character where possible.
- The Ly-ee-moon cemetery, ruins immediately behind the telegraph office, the signal mast and fittings, evidence of quarrying below the lightstation and the remnant wreckage of the Ly-ee-moon are conserved in accordance with the conservation plan.

Management response

- Necessary conservation works will be carried out on the Green Cape Lightstation as set out in the conservation management plan and as per environmental and heritage impact assessment approvals.
- Conservation strategies will be prepared and implemented for the house foundations and lightstation store ruin at Bittangabee, including historical research, assessment and works, if appropriate, to prevent further deterioration.
- Other historic places will progressively be recorded, their significance assessed, and conservation strategies developed and implemented where necessary.

5. Threats

5.1 Introduced Species

An introduced species is defined in this plan as any plant or animal species not native to the park or reserve. Introduced species within the area and on adjoining land are of concern because they have the potential to have detrimental effects on ecological values and can spread to and from neighbouring land. The Noxious Weeds Act 1993 places an obligation upon public authorities to control noxious weeds on land that they occupy to the extent necessary to prevent such weeds spreading to adjoining lands.

Introduced plants occur in areas of the park previously subject to agricultural and forestry activities or adjacent to urban areas. Agricultural weeds occur principally at Haycock Point and Mowarry Point. Blackberry *Rubus fruticosus*, sweet briar *Rosa rubiginosa*, arum lily *Zantedeschia aethiopica*, century plant *Agave americana*, nightshade *Datura stramonium* and spear thistle *Cirsium vulgare* are subject to control programs. These have been reasonably successful, but follow-up work is required.

The Eden rubbish tip is potentially a source of weed introduction into the park and leachate from the tip may encourage weeds. Improved management of the tip would reduce the risk of weed invasion.

Abandoned pine plantations (*Pinus spp.*) are found in several areas of the park; primarily between Barmouth Beach and the Pinnacles, west of Leather Jacket Bay and adjacent to the Green Cape Road near Bittangabee Creek. Native species have established in many of the former plantations, but large numbers of pines remain. Pines have spread from the plantations into adjacent native communities. A program is underway to eliminate pines by felling, ringbarking and poisoning.

The northern section has a variety of weed species, in particular bitou bush *Chrysanthemoides monilifera*. Whilst still a small infestation, largely due to the work of the local Landcare group, this species has the potential to spread and threaten large areas of native vegetation. Other weeds identified in this area include some of the species listed above plus lantana *Lantana camara*, fireweed *Senecio madagascariensis*, stinging nettle *Urtica spp.* and bridal creeper *Myrsiphyllum asparagoides*.

The recent spread of sea spurge *Euphorbia paralias* is currently posing a threat to coastal dune systems. This species also has the potential to infest large areas of beach foreshores. Monitoring of beaches and appropriate control measures are needed to prevent its spread.

Weed species also have the potential to infest disturbed areas along riparian corridors and lake foreshore areas. Problem weeds, when identified will be incorporated into the Region's Pest Management Strategy and weed eradication programs.

Introduced animal species with greatest impact in the park are rabbits, foxes, cats and wild dogs. Rabbits are concentrated at locations previously cleared and grazed e.g. Haycock Point, Green Cape and Mowarry Point and at day use and camping areas. Control programs are undertaken at areas of highest rabbit populations and are being assisted by revegetation of former farm clearings. Foxes and cats occur throughout the park, although numbers are highest in the vicinity of the Eden tip. Fox baiting is undertaken, and ongoing control is important given the value of the park for ground parrots and other threatened species.

Wild dogs are occasionally reported in the park. Wild dogs can be divided into three groups - dingos, hybrids with domestic dogs, and feral dogs. Wild dogs, including dingoes, are declared a pest animal under the *Rural Lands Protection Act 1998* across all lands in New South Wales. Schedule 2 of the Pest Control Order lists national parks and reserves considered to be potentially important for the conservation of dingoes. The NPWS considers the dingo to be part of the native fauna of New South Wales, which it has a responsibility to conserve. Ben Boyd National Park is one of the parks listed on this schedule. Wild dog control will be undertaken in accordance with the Far South Coast Regional Pest Management Strategy. It is NPWS policy to remove feral dogs from its lands.

Wild populations of deer are becoming increasingly evident in areas around the park. Ben Boyd National Park will be monitored on an ongoing basis for the presence of deer. Control measures will be undertaken for animals found within the park.

Desired outcomes

- Introduced plant species are controlled and if possible eradicated. Priority for treatment will be given to those which:
 - have been declared noxious
 - are threatening species or communities of conservation significance
 - threaten the integrity of native communities
 - may affect neighbouring lands
 - have a high capacity for dispersal
 - are new isolated occurrences.
- Introduced animals are controlled where they have a significant impact on native species, particularly threatened species. Control programs will be designed to minimise impact on non-target species.
- The cooperation of other authorities, park neighbours and community groups is sought in implementing pest control programs where appropriate.

Management response

- A pine eradication program will be continued to eliminate pines from the park.
- A weed control plan will continue to be implemented, providing for survey, monitoring and treatment of noxious and environmental weed species.
- Control of the species listed above will be undertaken, with priority to blackberry, bridal creeper, sea spurge and bitou bush.
- Bitou bush control in the vicinity of Pambula Beach will continue to be undertaken in conjunction with local community groups and council. Other control programs will be undertaken with neighbours and/or volunteer groups where relevant.
- Periodic checks of beaches will be made for sea spurge and bridal creeper and appropriate control measures undertaken.
- An introduced animal species control program will be prepared and implemented for the park and reserve to reduce environmental damage caused by introduced species.

- The area of national park surrounding the Eden tip will be monitored for potential weed and feral animal invasion from the tip to the park. In the event there are escapes from the tip, the Bega Valley Shire Council will be contacted and an agreed control strategy developed and implemented.
- Rabbit and fox control will continue to be undertaken. Especially important is the continuation of landscape scale fox control which has enabled the survival and growth of key populations of southern brown bandicoot and long-nosed potoroo within the park. Targeted predator control programs should also be implemented along the Light to Light Walk and around the facilities located along it.
- Deer within the park and reserve will be controlled, with the aim of eradication.

5.2 Fire Management

Fire is a natural feature of the environment of Ben Boyd National Park and Bell Bird Creek Nature Reserve and is essential for the regeneration of some plant communities. Inappropriate fire regimes such as too 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 sites and recreation facilities and threaten visitors and neighbouring land.

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

Fire history

The pre-European fire history of the park and reserve is not known. Traditional fire practices of in New South Wales have not been well researched and are therefore poorly understood. Aboriginal people are likely, however, to have had burning regimes which encouraged grazing plants in areas in which they hunted game and kept corridors open in lands they travelled through.

The fire history following European settlement has not been well recorded. It is known that the heaths and woodlands were burnt by graziers to promote feed and that extensive and severe fires occurred in 1952 and 1964. Since then there have been numerous small fires along roads and walking tracks and ongoing hazard reduction, but parts of the park have not been burnt for a considerable period.

Arson, lightning strikes, escaped camp fires have been the main sources of unplanned fire in the park. Because of the coastal location of the park, large fires are more likely to travel towards the park under the influence of hot north-westerly winds rather than away from it. Under these conditions there is the potential of fire to pose a threat to campers and day users within the park, particularly if their access is cut off. Fires may also travel northwards under a southerly influence, with the potential to threaten property adjacent to the park, however, to date there are no records of fires escaping from the park.

Ecological considerations

Fire frequency, intensity and season of occurrence are major factors influencing the distribution and composition of plant and animal communities. A variety of fire regimes is needed in order to conserve floristic diversity and provide diversity of habitat for animals. Extinctions are most likely when fire regimes of relatively fixed intensity, frequency and extent prevail without variation. Fire management aims to maintain diversity by restricting planned and, if possible, unplanned fires to only a part of the distribution of a vegetation type

within the park and reserve at any one time. This approach will ultimately result in a mosaic of age classes for each of the vegetation types of the area.

The fire response of the threatened and biogeographically significant plants in the park and reserve is not 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. As recovery plans are prepared for threatened species, identified fire management needs will be addressed in management of the park and reserve.

Ben Boyd National Park has a Fire Management Strategy (2004, updated 2008) which incorporates ecological burning requirements for the various vegetation types found in the park and reserve. Particular attention is needed in the management of heathlands. Some of the Ben Boyd heaths have not been burnt for more than 20 years. Fire management in the park and reserve should be coordinated with fire management in Nadgee Nature Reserve to avoid a situation in which large proportions of a particular habitat are burnt at the one time. Nadgee contains extensive heathlands which have been burnt more frequently than those in Ben Boyd and it would be useful to compare the two areas.

The NPWS also recognises that these burning regimes may need to be compromised where blocks are important for the protection of life and property. These areas are identified in the Ben Boyd National Park Fire Management Strategy.

Provision of suitable habitat for the ground parrot, striated fieldwren, eastern bristlebird (if present in the park) and biogeographically significant plant species is an important consideration in fire management in the heath and woodland areas of the park. Insufficient information is known about the requirements of these species.

Maintenance of areas of tall open forest, tree hollows and a dense ground cover in the parks open forests and woodlands are important requirements for conservation of many of the other threatened animal species. Fire management strategies developed in recovery plans and in the fire management strategy will take the needs of these species into account.

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 reserve. In particular, close to boundary areas, fuel reduction programs and fire trail maintenance systems will be designed and implemented in cooperation with neighbours.

The reserve contains camping and day visitor areas that are a source of possible ignitions, and areas requiring protection for people's safety. Provision of refuge areas, evacuation plans and fire safety information is needed in these areas.

A fuel reduced zone is maintained around the Eden tip to reduce the risk of fire escaping from the tip into the park. Powerful owls, masked owls and sooty owls roost in trees in moist forest adjacent to the tip. It will be necessary to ensure that prescribed burning operations do not affect the habitat of this species and as far as possible fire protection measures should be located within the tip area rather than the park.

Under the Rural Fires Act 1997 the NPWS is a fire authority and is responsible for controlling fires on the park and reserve and ensuring that they do not cause damage to other land or property. An important part of NPWS fire management is participation in local cooperative fire management arrangements. Bega Valley Bush Fire Management Committee aims to coordinate fire management and fire control on a district basis.

Bushfire suppression operations may require the construction of temporary trails, helipads and fire lines. These will be closed and rehabilitated as part of post fire operations. In

relation to fire, Bell Bird Creek Nature Reserve is part of the fire management strategy developed for Ben Boyd National Park (DECC, 2008).

Desired outcomes

- Fire is 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
 - protection of the range of the park's biodiversity, including conservation of rare, threatened and biogeographically significant plant and animal species and communities
 - maintenance of plant and animal species and communities through the provision of fire regimes compatible with their conservation
 - maintenance of the stability of the sand dune areas
 - protection of Aboriginal sites, historic places, visitor facilities and management structures.
- As far as possible fire is excluded from areas of rainforest in Bell Bird Creek gully and gullies on the northern fall into Disaster Bay, and from coastal dune communities.
- Prescribed burning may be undertaken to achieve a variety of fire regimes in appropriate vegetation types, to produce habitat suitable for species with specific requirements, to meet fire thresholds for particular plant communities and to provide for conservation of individual species.
- Close contact and cooperation will be maintained with volunteer bush fire brigades, Council fire officers and Forests NSW. The NPWS will continue to actively participate in the Bega Valley Bush Fire Management Committee and the Wonboyn Village Protection Committee.
- As far as possible fuel management will be carried out in cooperation with neighbours for mutual protection.
- Land use planning and development authorities and private developers will be encouraged to incorporate boundary fire breaks and other fuel reduction measures in any development adjacent or in proximity to the park or reserve.

Management response

- The use of heavy machinery for fire suppression will where possible avoid rare plants, rainforest, Aboriginal sites, historic places, wetlands, sand dunes and heathland.
- As far as possible areas disturbed by fire suppression operations will be rehabilitated as soon as practical after the fire.
- Records and maps will be maintained of all fires as they occur.
- The Ben Boyd National Park and Bell Bird Creek Nature Reserve Fire Management Strategy will be implemented.
- Fire management in the national park and nature reserve will be coordinated with fire management in Nadgee Nature Reserve in order to provide a diversity of habitat and to link management of threatened species such as the ground parrot.
- Fire response plans will be prepared for day use and camping areas within the park.
- Programs will be prepared annually detailing fuel reduction burning and trail maintenance requirements in accordance with this plan and the fire management strategy.

- Research will be encouraged into the ecological effects of fire in the park and reserve, particularly the fire response of significant plant species and the requirements of threatened fauna species.
- A monitoring program will be established to record the response to fire of ground parrots, striated fieldwrens and eastern bristlebirds, if present.
- Vehicle tracks in Bell Bird Creek Nature Reserve will be closed.
- The park and reserve may be closed to public use during periods of catastrophic or extreme fire danger.

5.3 Climate Change

Anthropogenic climate change has been listed as a key threatening process under the TSC Act. Projections of future changes in climate for New South Wales include higher temperatures, increasing sea levels and water temperatures, more intense but possibly reduced annual average rainfall, increased temperature extremes and higher evaporative demand. These changes are likely to lead to greater intensity and frequency of fires, more severe droughts, reduced river runoff and water availability, regional flooding, increased erosion and ocean acidification.

Climate change may significantly affect biodiversity by changing population size and distribution of species, modifying species composition, and altering the geographical extent of habitats and ecosystems. The potential impact of climate change is difficult to assess since it depends on the compounding effects of other pressures, particularly barriers to migration and pressure from feral animals. Species most at risk are those unable to migrate or adapt, particularly those with small population sizes or with slow growth rates.

Programs to reduce the pressures arising from other threats, such as habitat fragmentation, invasive species, bushfires and pollution will help reduce the severity of the effects of climate change.

Desired outcomes

- Minimal impact of climate change on threatened species and their associated ecosystems by ensuring species expansion/redistribution.
- The park and reserve will be managed to ensure:
 - strategies are developed to reduce habitat fragmentation
 - biodiversity corridors for species distribution, expansion and migration areas are established as a high priority by various means including:
 - initiate discussions with private landholders, local government and NSW Forestry
 - encourage research so that strategy is science based.

6. Recreation, Education and Research

6.1 Promotion and Interpretation

Park facilities and services provide opportunities to enjoy, appreciate and understand our natural and cultural heritage. Only areas which can sustain use are promoted in this way. Information provision at such places and about the area in general assists the protection of natural and cultural heritage, promotes support for conservation and increases the enjoyment and satisfaction of visitors.

The park and reserve have a number of natural and cultural features of interest to visitors; primarily the colourful folded cliffs visible from Haycock Point and Red Point, the Pinnacles, varied vegetation communities, Pambula River and lake vistas, Boyds Tower, the Bittangabee Ruins, Green Cape Lightstation and the beautiful coastline. These features will be promoted and interpreted to visitors in a manner that protects their special values and encourages appropriate use.

Information and interpretive signs are currently provided at Haycock Point, Saltwater, Bittangabee, Green Cape, the Pinnacles carpark and Boyds Tower. As stated in section 4.4, it is intended to provide information about Aboriginal use of the area at several locations such as Haycock Point, Severs Beach, Disaster Bay, Pinnacles Saltwater and Bittangabee.

Green Cape Lightstation has an important association with maritime history and is a focus for regional tourism. Self guided visits of the site are permitted and there are also guided tours. There are a number of surrounding sites associated with the lightstation, such as the Ly-ee-Moon cemetery which are also of interest to visitors. The Green Cape area also has high natural values and is the most appropriate location for interpretation of the significance of the heathlands of the park

Existing information signs throughout the park are being progressively replaced in accordance with statewide standards for national park signs. Information signs are needed for walking tracks at Barmouth, in the new addition north of the Pambula River, and along the southern coastline.

The Light to Light Walk will be actively promoted as a high quality relatively easy coastal walking experience which contrasts with the more remote experiences offered in Nadgee Nature Reserve.

School holiday Discovery programs are undertaken in the park, providing a variety of activities designed to promote appreciation of its natural and cultural features. Local educational groups use the park, including the Bournda Environmental Education Centre, and school groups camping in the park.

Community and commercial operations such as guided tours and on-park accommodation that promote public understanding and appreciation of natural and cultural values, are appropriate in the area. Because of the potential for large groups to have greater environmental impact, it is very important for quality interpretive material and promotion of minimal impact measures to be included in educational programs. Limits would be set on group sizes and frequency of use where necessary.

Any applications for tourism operations will be assessed in terms of their environmental impact, effects on other visitors, the interpretation programs offered and other relevant factors.

It is most appropriate for local Aboriginal people to interpret Aboriginal sites and culture within the park. Proposals for tours or other educational activities by Aboriginal people will be encouraged. Specific proposals by Monaroo Bobberrer Gudu Aboriginal Cultural Centre are dealt with in section 6.2 as they involve facility construction.

Desired outcomes

- Visitor enjoyment, understanding and appreciation of the natural and cultural features of the park and reserve is promoted through provision of visitor facilities (see section 6.2), interpretive signs, brochures, web-based interpretive materials, media articles and Discovery programs. The degree and style of promotion of particular locations will be appropriate to the standard of access and the ability of the site to sustain use. Locations in the nature reserve will not be promoted.
- The following themes are emphasised in interpretation programs:
 - interesting geological features such as folded Devonian rocks and the Pinnacles
 - the importance of the heathlands, wetlands and the park generally for restricted and threatened plant and animal species
 - the diverse history of the park, particularly Aboriginal use, whaling, lightstation activities and maritime history.
- Educational, community and commercial tour operations may be permitted subject to licensing and/or consent conditions where appropriate. Joint initiatives will be undertaken with the local Aboriginal community and other stakeholders where possible.
- Aboriginal people, especially Traditional Owners, will be encouraged to undertake interpretation of Aboriginal sites and cultural values within the park through such means as tours and related activities.
- Opportunities for partnerships in the delivery of the Light to Light Walk are encouraged.

Management response

- Information signs in the park will be progressively upgraded. Priority will be given to upgrading interpretation at the Pinnacles area, Green Cape and the Light to Light Walk.
- Information signs will be provided for the walking track at Barmouth.
- Investigation will be undertaken into the feasibility of erecting information shelters near the entrances to the central and southern sections of the park, providing information for visitors about park access and attractions.

6.2 Recreation and Tourism Opportunities

This section deals with provision of access, day and overnight facilities to enable visitors to enjoy the special environments of Ben Boyd National Park and undertake appropriate recreational activities.

Bell Bird Creek Nature Reserve does not receive any known recreation use. The primary purposes of nature reserves are conservation of natural and cultural heritage and provision of opportunities for education and scientific research. Bell Bird Creek Nature Reserve contains a substantial area of gallery rainforest which would be vulnerable to damage by people. For this reason, as well as its classification as a nature reserve, recreational use of the nature reserve will not be encouraged.

Ben Boyd National Park is part of the 'Australia's Coastal Wilderness National Landscape' under the National Landscape Program. The Department of Environment, Climate Change and Water supports and is part of this initiative and has recommended the 'Coastal Wilderness Landscape' as a priority area for destination and product development, marketing and promotion (DECCW, 2008).

Overview

The park is close to the townships of Eden, Pambula, Pambula Beach and Merimbula. It is an important recreation resource for residents and receives a substantial number of holiday visitors during summer. It is estimated that approximately 150,000 people visit the park each year. A high proportion of visitors are Victorians.

Recreational and tourism use of the park is concentrated on the coastal fringe and consists primarily of beach-oriented activities, scenery viewing, fishing, snorkelling, scuba diving, camping, picnicking, walking and horse riding. The pattern of use was established prior to gazettal and the NPWS has progressively developed high quality facilities at popular locations.

Elsewhere in the district, similar facilities are provided in nearby coastal reserves at Wonboyn Beach in Nadgee Nature Reserve, at several locations in Bournda National Park and Mimosa Rocks National Park, at Davidson Whaling Station Historic Site and at Edrom Lodge in East Boyd State Forest. A number of picnic and camping areas are also provided in state forests and national parks in the coastal hinterland. Existing facilities in Ben Boyd National Park tend to be less crowded than in the other coastal national parks and those in the southern section of the park provide a sense of relative isolation.

It is essential for visitor use to be sustainable. This requires placing limits on the number of access points, design of facilities to ensure that numbers of visitors and activities or use are appropriate for the site. The provisions below are designed to maintain the low key, scenic, natural settings that are the special feature of the park and to provide for future use in a manner that protects the park's natural and cultural heritage values while providing high quality, memorable experiences for visitors. In particular, the plan aims to protect the highly significant coastal heathlands from the impacts of recreation use.

Access

Access to the park is by spur roads leading off the Princes Highway (see Figure 1). Most are good quality sealed or unsealed roads but those to Leather Jacket Bay, Terrace Beach and Lennards Island are suitable for 2WD vehicles during dry weather only. These tracks will be maintained at a rough 2WD standard in order to keep visitor numbers to a relatively low level and protect significant natural values in these areas. Some minor work is needed on the roads to Terrace Beach, Severs Beach and on the intersection of the Leather Jacket Bay Road and Edrom Road.

Haycock Road receives a relatively large amount of use as it is close to Merimbula and Eden and provides access to popular beach and riverside recreation facilities. It needs to be maintained in a relatively good condition.

The roads to Boyds Tower and the Pinnacles are maintained at a standard suitable for coach access. Bus parking is provided at Boyds Tower and will be constructed at the Pinnacles car park. Other roads in the park are of unsuitable width and surface for coaches.

The track between Leather Jacket Bay and the Mowarry Point carpark, which currently forms part of the Light to Light Walk, will be maintained to a 4WD standard for public vehicle access and this section of the Light to Light Walk will be relocated to avoid the vehicle track (see Section 6.2 Recreation and Tourism Opportunities – Light to Light Walk). Detailed track design should avoid the known Aboriginal sites in this area. A management trail provides access from the car park to Mowarry Point for park operations. Public vehicle access is prohibited beyond the Mowarry Point carpark to protect ground parrot populations resident in the area.

Park roads and management trails may be improved, within the limit of their classification, to service the planned Light to Light Walk (see Figure 1 for park roads and management trails). Commercial partners may be permitted to use park roads and management trails.

It is important in areas of high conservation values to maintain large areas free from vehicle tracks and associated disturbances, particularly where there is critical habitat for threatened species, coastal heathlands, or Aboriginal sites such as middens.

Over many years, a number of ad hoc tracks have been established leading to favoured fishing, surfing or diving sites. In most cases these tracks are in good condition, but some have resulted in damage to heathlands, creek lines and Aboriginal sites. Car parking areas will be delineated, damaged areas rehabilitated and walking only access will be provided to the coast near Walkers Rock, Bobs Rock, Pulpit Rock, Spot X and City Rock and between Lennards Island and North Head while minimising impacts to known Aboriginal sites and environmental values. The vehicle tracks to be retained are shown on Figure 1. All tracks will be monitored and if their condition deteriorates works will be undertaken to minimise further impacts. In some cases, tracks or sections of tracks may be closed or rerouted if they deteriorate significantly. The NPWS will continue to consult with users about the tracks in the park.

In all cases the vehicle and walking tracks access will be designed and located to protect sensitive areas and as best as is possible provide for convenient access to the coast for park visitors.

The northern section of the park around Pambula has a number of trails that will be closed and designated as management trails only, to preserve heritage values and deter illegal activities.

A large proportion of visitors to Severs Beach arrive by boat. This area provides safe swimming opportunities in the Pambula River and is a popular stop for boat users. However, there are issues with wave action from boat wash affecting important Aboriginal middens in the area.

Sea kayaking is becoming an increasingly popular activity on the South Coast. Kayakers and other boat users access a number of locations along the park's coastline and some seek to camp overnight. They will be able to do so on the same basis as other park visitors.

Day use facilities

Day use parking, picnicking, viewing and walking facilities are provided at a number of sites along the coastline. These provide access to a variety of features of interest and give a very good coverage of the park. The most heavily used sites are at the northern end of the park because of the surf beaches and easy access from Eden and Pambula.

Currently the area around Pambula has one formal walking track along the Pambula River with two lookouts. There are a number of informal tracks including a network of trails around Pambula Beach freshwater lagoon. These facilities will be formalised and improved, and track head information will be constructed.

Most existing day use facilities have been recently formalised or upgraded and are of good standard, although works are still required at some locations.

The feasibility of a walking track link from Aslings Beach to North Head will be investigated in conjunction with the local Eden community.

Tourism visitation to the Green Cape area is expected to increase as the NPWS promotes the lightstation. Carparking, accommodation, picnic facilities, toilets and walking tracks to the point have been provided combined with interpretive and information signposting.

The facilities at Disaster Bay lookout are inadequate for current visitation levels and more visitors are expected as a result of increasing visitation to the lightstation. Further works to extend the lookout's carpark, upgrade the lookout platform and provide a toilet are required to address this situation.

Other higher usage day recreation sites generally have toilets, apart from Severs and Terrace beaches. Provision of toilets may also be warranted at these locations in the future to limit environmental damage.

At present rubbish bins are provided at key locations, being Haycock Point, Bittangabee Bay, Saltwater Creek and Pulpit Rock. Bins are being removed from less visited locations.

Walking and pack camping

Short walking tracks are provided from car parks to visitor destinations and short to medium length walks take visitors to Severs Beach, to view the Pinnacles, around Bittangabee Bay and between Haycock Point and Barmouth Beach. Walking tracks are also provided in the northern section near Pambula Beach and the Pambula River as outlined above.

Pack camping is not permitted in the northern section of the park because of its smaller size, heavier day use and lack of long walking tracks.

Pack camping, including camping by sea kayakers, occurs in the southern section of the park, including on locations along the Light to Light Walk accessible by walkers and boats. Pack camping on the Light to Light Walk is restricted to purpose-built walk-in only camping sites at Mowarry Point and Bittangabee Bay. Dispersed pack camping is also permitted in other locations in the southern section of the park but must not occur within 500 metres of any roads, tracks and trails or other visitor facilities including the Light to Light Walk and its facilities. Concentrated pack camping can lead to degradation of sites and it will be necessary to monitor impacts and take action to address them if necessary.

The Light to Light Walk is a 31 kilometre track between Boyds Tower at Red Point and the Green Cape Lighthouse which provides a relatively easy walk through areas of spectacular coastal scenery, varied ecosystems and several locations of cultural heritage significance. The Walk may be conducted as an overnight walk of 2 or 3 days or as day walks. Camping facilities on the Walk are available at Bittangabee Bay and Saltwater Creek (which are both accessible by vehicles) and at Mowarry Point. Pack camping without facilities, either on foot or by boat can only occur away from the Light to Light Walk and its facilities. Accommodation is also available at Green Cape Lightstation.

The Light to Light Walk is becoming a major drawcard for the park and has the potential to attract more visitors, especially following the designation of Australia's Coastal Wilderness National Landscape and increasing promotion of the Walk and the Green Cape area.

Improvements to the Walk are required to cater for increasing visitation and to provide for a broader range of visitors to engage in the nature-based experience it offers. The Walk will continue to be managed as a high quality, sustainable walking experience that provides for a range of visitors and includes facilities and services compatible with the park's natural and cultural values and the area's relatively remote natural settings.

The Light to Light Walk Strategy (NPWS 2021) and designs for construction must be consistent with the plan of management but may be refined to account for the outcomes of the final environmental, cultural heritage and detailed site assessments. In broad terms, the improvement works proposed on the Walk include:

- constructing walkers' huts, other hard-roofed and/or tented accommodation and associated facilities (see Accommodation below)
- rerouting sections of the Light to Light walking track to more closely follow the coast, improve views and the visitor experience

- constructing several short spur tracks to better connect the Light to Light Walk with beaches, lookouts and other nearby points of interest.

Given increasing visitation, overnight walker numbers will be monitored and if necessary managed to ensure that environmental impacts are minimised and to protect the quality of the experiences of walkers and other park visitors. Consistent with other multi day walks, fees may be introduced as a contribution to management of the track and associated facilities and to ongoing conservation works.

In order to improve the walker experience and address environmental impacts associated with unregulated pack camping, purpose-built walk-in only camping sites will be developed at Mowarry Point and Bittangabee Bay. Pack campers on the Light to Light Walk will be required to use these facilities.

Opportunities for both independent walkers and commercially operated experiences will be provided on the Light to Light Walk subject to the above principles and section 6.1. The provision of sustainable, commercially operated opportunities on, or linked to, the Light to Light Walk that may be investigated include:

- guided day and overnight walks
- walker transport to trailheads
- incorporation of other park activities, including sea based experiences.

All users, whether they participate in commercial tours or are independent walkers, will have equity of access to the walk. If overnight walker numbers are restricted to protect the quality of the experience, an equitable proportion of numbers will be made available to independent walkers.

The Light to Light Walk will be rerouted in places to improve views and visitor amenity, and to protect environmental and cultural values. Rerouting of the track will be consistent with the Light to Light Walk Strategy.

Several short walking tracks will be constructed to provide new linkages, or in some cases to formalise existing linkages, between the Light to Light Walk and nearby points of interest. Impacts on Aboriginal cultural heritage, threatened species and the park's other natural heritage values will be minimised. Construction of these walking tracks will be consistent with the Light to Light Walk Strategy.

Car-based camping

Car-based camping areas are provided at Bittangabee Bay and Saltwater Creek, with 30 and 14 sites respectively. Most of the sites are suitable for tents only but a proportion provide for drive-on camping such as small vans and camper trailers. Access roads to the camping areas are not suitable for caravans or other large vehicles.

Demand for campsites during the summer holidays exceeds capacity, particularly at Saltwater Creek. There is some opportunity for a small expansion of camping without significant clearing and impact. Campers are informed about other camping opportunities in the region.

Both campgrounds are suffering vegetation loss and sheet erosion is evident at Bittangabee. Fencing and planting of small areas between camp sites is being undertaken and may be combined with introduction of a system of site rotation to permit recovery of degraded areas.

Facilities at both campgrounds consist of pit toilets and barbecues. The surrounding areas have little dead wood. Promotion of use of gas stoves is needed.

Car-based camping, including camping where equipment is carried in from a nearby vehicle, also occurs in the park at several other sites. To limit environmental impacts, and to protect the experience for day visitors and Light to Light walkers, these sites will be closed to this

activity. All car-based camping and near-car camping in the park will be restricted to the camping sites provided at Saltwater Creek and Bittangabee Bay. Low-key walk-in public camping facilities will be provided at Mowarry Point.

Disabled access

Access and facilities for disabled visitors are available at Green Cape Lightstation, Haycock Point picnic area and Boyds Tower. Provision or improvement of facilities to cater for disabled visitors will be investigated where practically achievable.

Aboriginal ecotourism facilities

An area owned by the Aboriginal community is located close to the park on Pambula Lake. It is known as Monaroo Bobberrer Gudu Aboriginal Cultural Centre. The Centre plans to run ecotourism operations and cultural activities in the future. It is proposed to use the Haycock Point Aboriginal cultural camp (see section 4.4) as a site for Aboriginal people to provide ecotourism activities and presentation of Aboriginal culture to tourists.

Associated with this is a proposal by the Monaroo Bobberrer Gudu Aboriginal Cultural Centre for a walking track from the centre around Pambula Lake to a location near Haycock Point, which would enable progressive presentation and experience of Aboriginal culture. Any construction of a walking track in this area would be subject to investigation of feasible routes and to environmental impact assessment. The proposed walking track would be available for use by all visitors to the park and to Monaroo Bobberrer Gudu Aboriginal Cultural Centre.

The cultural camp in the southern section of the park may also be used as a site for Aboriginal people to provide ecotourism activities and presentation of Aboriginal culture to visitors.

Accommodation

In order to diversify the range of visitor opportunities and assist ongoing conservation, the head lightkeeper's residence, the assistant lightkeeper's residence and the telegraph station at Green Cape Lightstation have been made available for visitor and staff accommodation.

Subject to heritage conservation requirements, this plan allows for the adaptive re-use of other buildings (see Figure 2) and construction of new buildings, either within or outside the lightstation complex, to provide for additional visitor and staff accommodation and for tourism related services.

New accommodation facilities will be constructed at Mowarry Point and Hegartys Bay and may be constructed at Green Cape to support Light to Light walkers. Accommodation facilities at Mowarry Point may include walkers' huts and other hard-roofed and/or tented accommodation and a low-key, walk-in public camping area with basic facilities. Accommodation facilities at Hegartys Bay may include walkers' huts and other hard-roofed and/or tented accommodation. If Hegartys Bay proves unviable, walkers' huts and other hard-roofed and/or tented accommodation may be built at Bittangabee Bay, or its surrounds, instead.

Associated facilities such as a communal kitchen, toilets and on-site manager/host accommodation and sustainably oriented power and water systems may also be provided. All facilities constructed will be consistent with the Light to Light Walk Strategy. Construction of all facilities will be subject to development planning and environmental and heritage impact assessment and approval processes.

Commercial partnerships may be sought to provide visitor services on the Light to Light Walk. NPWS will develop and manage all the provided accommodation.

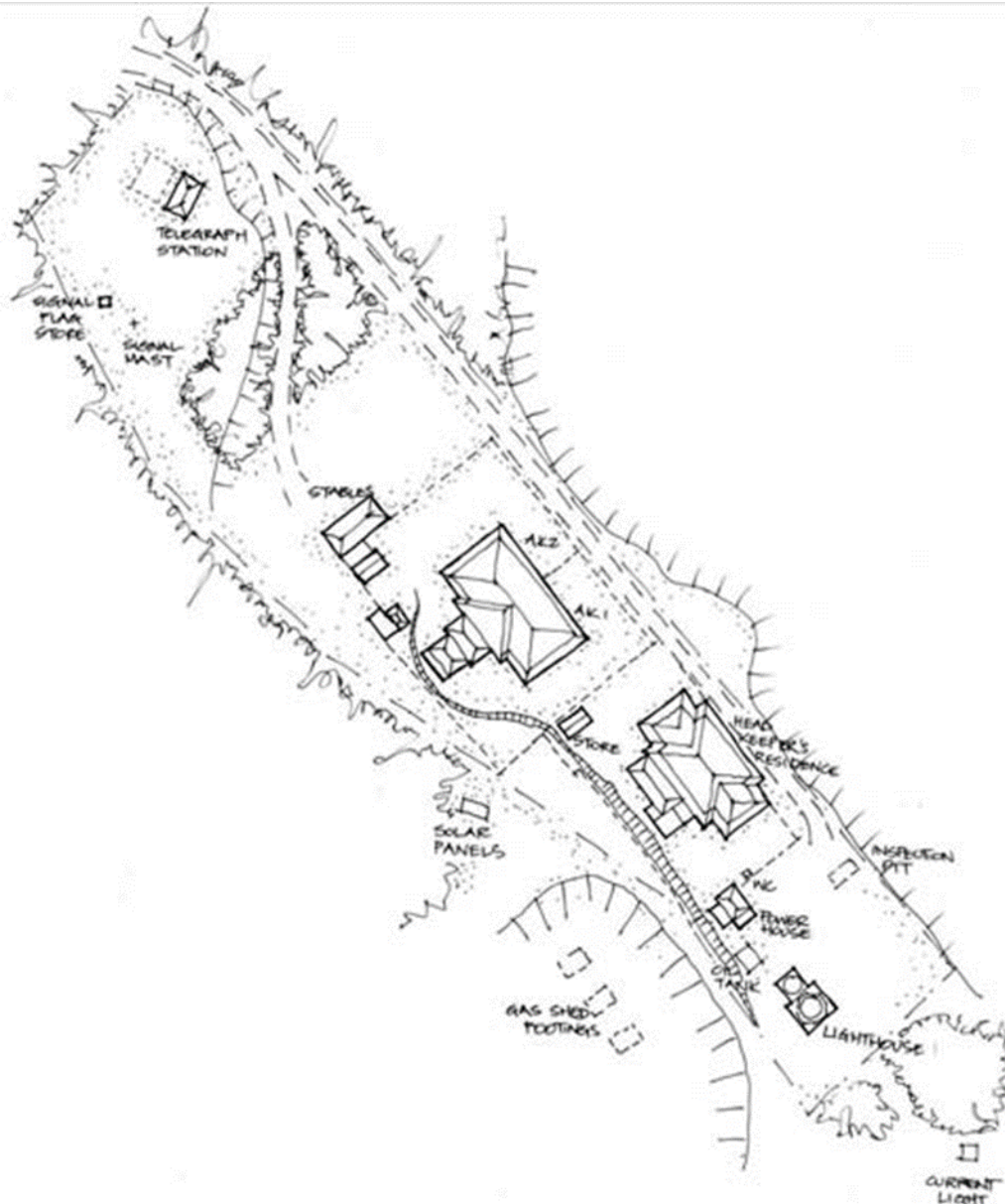


Figure 2 Green Cape Light Station Complex
(AK1 and AK2 are the Assistant keepers quarters). Map courtesy of Riddell Architecture

Horse riding, cycling and rock sports

Horse riding is permitted on the public access road system and a small area in the northern section, but not elsewhere in the park or reserve because of the impacts of riding on natural and cultural values and the potential conflicts with walkers.

Horse riding in the northern section occurs in an area north of Pambula Beach Road. Riding occurs along an informal network of tracks and trails and along the beach.

The NPWS will investigate the rationalisation of trails used by horse riders to access the beach. These trails will be subject to favourable environmental assessment of their impacts.

Where the opportunity arises the NPWS will increase awareness regarding the impacts of horse riding and will promote the use of the horse riding code of conduct.

Little cycling occurs in the park and no cycle tracks are provided. Use of walking tracks for cycling is not appropriate because of hazards to cyclists, hazards to walkers and the risk of erosion but the road network provides extensive cycling opportunities.

Rock faces in the park are generally crumbly and not suitable for rock climbing or abseiling. There are a number of locations where informal rock fishing anchor points have been set into the rock at well-used rock fishing spots. Fishing in circumstances where these are required is considered dangerous and the construction of anything in the park, including anchors, without permission is an offence under the NPW Regulation.

Desired outcomes

- Ben Boyd National Park is managed to provide a variety of sustainable and low impact recreation opportunities based on its natural and cultural features and low key sustainable facilities to provide high quality, nature and/or cultural experiences for visitors.
- Recreational use of Bell Bird Creek Nature Reserve is not encouraged, and no facilities are provided.
- The Barmouth/Severs Beach/Long Beach area of the park and the area adjacent to Pambula are managed as the main focus of day recreational use.
- Sustainable tourism use of Boyds Tower, Haycock Point, the Pinnacles, Bittangabee Bay, the Light to Light Walk and the Green Cape Lightstation is encouraged.
- The high landscape values of the park will be protected by such means as careful siting and design of developments and use of appropriate materials and planting.
- Day use facilities will be provided as follows:
 - Pambula River –walking track and river viewing area
 - Pambula Beach lagoon – self guided circular walking track
 - Barmouth Beach – carpark and walking tracks to Pambula estuary and Haycock Point
 - Severs Beach – carpark, walking track to river, small picnic area adjacent river, and toilets if warranted, in conjunction with Aboriginal midden protection
 - Haycock Point – picnic facilities with disabled access, disabled toilets, beach access
 - North Long Beach and Quondolo Point – parking close to beach
 - Pinnacles – picnic area, disabled toilets, walking track with viewing points, access to beach
 - Terrace Beach – carpark, stairs to beach, toilet
 - Lennards Island – small carpark, track to rocky beach
 - North Head – carpark, viewing point
 - Boyds Tower – lookout, disabled toilets, walking tracks to Red Point and Bittangabee (coast track), disabled access to Boyds Tower and lookout platform
 - Leather Jacket Bay – carpark
 - Mowarry Point – carpark, walking track
 - Saltwater Creek and Bittangabee – picnic facilities, toilets, coastal walking track linking the two areas
 - Pulpit Rock, City Rock and three other sites at Green Cape –walking tracks and stairs to fishing spots, toilets at City Rock

- Disaster Bay Lookout – lookout, carpark, accessible toilet
- Green Cape Lightstation – carpark, picnic area, toilets and lookout with disabled access, walk to historic features.
- The Light to Light Walk will be managed as a high quality, sustainable walking experience on which:
 - overnight and day walking opportunities are provided for a range of visitors
 - visitors are engaged in appreciating the natural and cultural values of the area
 - facilities and services are unobtrusive, high quality and compatible with the park's natural and cultural values and the area's relatively remote natural settings
 - overnight walkers enjoy quality experiences with minimal environmental impact
 - there are opportunities for sustainable, commercially operated experiences.
- Hard-roofed and/or tented accommodation options are provided for Light to Light walkers in a way that is appealing to a wide range of visitors and minimises impacts on the natural and cultural values of the sites and on the amenity of the area for other walkers and park users.
- Low key camping facilities will be maintained at Saltwater Creek and Bittangabee Bay. There may be small changes in campground layout and site numbers to assist the management of these areas. Sites will be subject to booking during periods of heavy use. All campers, whether arriving by boat, foot or vehicle, will be subject to the same booking and other requirements.
- The Green Cape Lightstation complex is managed to provide visitor accommodation.
- No new facilities are constructed within intact heathland unless no practical alternatives are available and mitigation and offset measures are implemented. Where practicable, tracks and trails no longer required for public recreation or park management are closed. The natural habitat values of heathland are promoted to the visiting public.
- Public vehicle use in the park will be permitted only on the park roads shown on Figure 1 and as described in the Access section of this plan. Park roads will be maintained to the standard shown on Figure 1.
- Roads to Boyds Tower and the Pinnacles will be maintained in a condition suitable for medium sized tourist coaches.
- Gates, fencing, bollards and other vehicle controls will be constructed where necessary to prevent vehicles driving off roads.
- The NPWS will maintain liaison with Forests NSW and Bega Valley Shire Council regarding maintenance of roads which provide access to the park, such as Green Cape Road.
- Pack camping will be subject to the following conditions:
 - no pack camping may occur in the northern section of the park or in the nature reserve
 - in the southern section of the park, dispersed pack camping by walkers and those arriving by watercraft, is permitted, but must be more than 500 metres from any roads, tracks and trails or other visitor facilities including the Light to Light Walk and its facilities
 - on the Light to Light Walk, pack camping will be restricted to purpose-built walk-in only camping sites at Mowarry Point and Bittangabee Bay
 - pack camping elsewhere in the park may be prohibited or regulated if unacceptable impacts occur
 - minimal impact walking and camping practices will be encouraged
 - ecologically sustainable toilet facilities and other low impact facilities may be provided as necessary to ensure environmental protection.

- In the northern section of the national park, horse riding will be limited to approved horse trails only. This will provide access to Pambula Beach through the park. Elsewhere recreational horse riding will be allowed on public access roads subject to impacts on the natural and cultural environment. No commercial horse riding will be permitted in the park.
- Adherence to the Horse Riding Code (as described by the DEC Draft Recreational Horse Riding Policy 2002) will be required.
- Rock climbing and abseiling will not be permitted in the park as there are no suitable safe places in which to conduct this activity.
- Provision of ecotourism activities in the park by Traditional Owners is supported. Registered groups may utilise the park's Aboriginal cultural camps for ecotourism operations, under a commercial licence. A walking track at Haycock Point for Aboriginal ecotourism may be constructed subject to investigation of feasibility and environmental impact assessment.
- Cycling will be permitted on all public access roads and trails within the park but will not be permitted on walking tracks.

Management response

- The carpark adjacent to Lennards Island will be formalised and erosion control work will be undertaken on the walking track.
- Works will be undertaken to improve car parking arrangements and barriers at Mowarry Point.
- The Barmouth carpark and beach access will be upgraded.
- The carpark at Leather Jacket Bay will be formalised to control vehicle movement and vegetation damage.
- The walking track to the Bittangabee Bay lightstation store will be upgraded to redress the erosion that is occurring.
- The following works will be undertaken on the access tracks in the park to protect the surrounding fragile areas:
 - Dry weather 2WD vehicle access to 'Walkers Rock' will be maintained to a car park area constructed at the heathland/forest interface. Vehicle tracks in the heath areas will be replaced by a walking track to the coast.
 - Similarly, at 'Bobs Rock', vehicle access will be retained as far as the forest/heath interface with a walking track to the coast.
 - Design and, following environmental impact assessment and approval, build a new car park on the road to Pulpit Rock and a walking track from the car park to the shoreline.
 - A fishing, surfing and diving destination known locally as 'Spot X' is located to the east of City Rock. A vehicle track branches east from City Rock road to points where users leave their cars and walk to sites around 'Spot X'. The areas where cars are parked are in very poor condition, are eroding in places and impacting upon heath areas. Access to Spot X' will be via the existing vehicle track that branches east from City Rock road to a car park in the heath, from where visitors will be able to walk to the coast around 'Spot X'. Other vehicle access to this area will be closed, including the informal track from Green Cape Road further east.
 - The existing vehicle track to 'Spot Y' is severely eroded, damaging two creeks and cutting through sensitive vegetation. This track will be closed. There will be a walking track from the City Rock carpark to near 'Spot Y'. Vehicle access closer to 'Spot Y' will be investigated and may be provided subject to practicalities and satisfactory environmental assessment.

- North of Eden between 'Cockle-eye-ricky' and just south of Lennards Island there are five vehicle tracks branching off the road to North Head leading to the coast. Each of these tracks will remain open to car parking areas moved inland from the current locations and off heathland areas. Walking tracks will replace these short sections of vehicle tracks.
- Between just south of 'Cockle-eye-ricky' and North Head car park, there are three tracks through the heathland which are used to access the coast on the east side of the North Head peninsula. These tracks will be closed and replaced with walking tracks from parking spaces located on the North Head road.
- On the western side of the North Head road there are two tracks which lead to the north shores of Calle Calle Bay. Car parks on these tracks will be located at less sensitive areas and walking tracks will replace the eroded vehicle tracks.
- Tracks not shown on Figure 1 will be closed and rehabilitated.
- Currently a rough fishing track exists from Aslings Beach to North Head. Investigation will be undertaken as to the suitability of upgrading this track to provide walking access to the North Head area. The track will be constructed subject to favourable environmental assessment and funding being available.
- The informal network of walking tracks around the Pambula Beach freshwater lagoon will be rationalised and a suitable route will be upgraded to form a circular walking track around the lagoon. Construction of a bird hide will be investigated in association with the track.
- Review where horse riding is allowed or the conditions under which horse riding can be undertaken north of Pambula Beach should there be unacceptable environmental damage. Undertake such a review in consultation with interest groups.
- The feasibility and impacts of constructing a walking track from Monaroo Bobberrer Gudu Aboriginal Cultural Centre through the park will be considered. If found to be acceptable and funds are available, the track will be constructed.
- Re-establish access to Pinnacles Beach. Bus parking will be provided at the Pinnacles car park if feasible. The walking track to the lookout will be upgraded to provide for disabled access, subject to funds being available.
- The boardwalk around Boyd's Tower and to a viewing platform will be maintained. Works will be carried out as necessary to make the toilets suitable for disabled visitors.
- Design and develop purpose-built walk-in only camping sites at Mowarry Point and Bittangabee Bay subject to environmental impact assessment.
- A system for managing overnight walker numbers on the Light to Light Walk will be introduced (e.g. via bookings, permits or local policies).
- Design and develop hard-roofed and/or tented accommodation and associated facilities, consistent with the Light to Light Walk Strategy, at Mowarry Point, Hegartys Bay (or Bittangabee Bay and surrounds) and, if required, at Green Cape.
- The feasibility of commercial partnerships in support of the Light to Light Walk will be investigated and engaged, if appropriate. These may include guided day and overnight walks and tours, servicing, maintenance, provision of supplies, transfers and links to other park activities and experiences.
- Opportunities for adaptive re-use of buildings and structures within the Green Cape Lightstation complex to provide for additional visitor accommodation and tourism related services, including through commercial partnerships, will be investigated and implemented if appropriate.
- Realign the Light to Light Walk at several locations, consistent with the Light to Light Walk Strategy.

- Close and rehabilitate those sections of the Light to Light Walk that are rerouted in accordance with the Light to Light Walk Strategy and which are no longer required for public recreation or park management.
- Consistent with the Light to Light Walk Strategy, construct new short walking track spurs from the Light to Light Walk to nearby points of interest.
- The Saltwater Creek and Bittangabee camping areas will continue to be redesigned and organised to address wear and tear and maintenance of native vegetation. Planting of trees and shrubs will be undertaken to ensure replacement of existing tree cover, provide screening between sites and improve amenity.
- Monitor Aboriginal sites along the Light to Light Walk to ensure impacts are not increasing as a result of implementing the Light to Light Walk Strategy
- The Disaster Bay lookout will be upgraded, and the car park extended to cope with increasing visitation. Access will be provided to the lookout for people with disabilities. An accessible toilet will be installed to provide visitor amenity and limit environmental impacts.

6.3 Monitoring and Research

Ben Boyd National Park and Bell Bird Creek Nature Reserve will be managed within a bioregional landscape framework, in accordance with the principles of ecological sustainability developed for the Eden Regional Forest Agreement of 1999. Under the Eden Regional Forest Agreement (RFA) all forest managers including State Forests of NSW, Department of Infrastructure and Planning and Natural Resources and the NPWS 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.

ESFM is an overriding management principle but will be implemented primarily through monitoring to provide feedback on management programs. Performance indicators of ecologically sustainable forest management are identified in the ESFM report. Monitoring programs developed in association with the indicators 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.

Research priorities identified under the RFA will be pursued along with topics identified in this plan of management. Key areas of research will be:

- ecological fire requirements for the plant communities and significant species of the area;
- ground parrot, striated fieldwren and eastern bristlebird survey and their fire management needs;
- wildlife corridor and yellow-bellied glider study at Pambula;
- survey for Aboriginal sites;
- the historical background of historic places and buildings; and
- monitoring visitor use and impact.

Additional research programs will be considered where they complement ESFM criteria and indicators.

Only a small amount of research has been carried out in the area to date, related to fauna survey, Devonian fossils, Aboriginal sites and fungi eaten by long-nosed potoroos. Some of the considerable amount of research in nearby Nadgee Nature Reserve is relevant to the park.

The availability of the Green Cape Lightstation for accommodation may encourage researchers to undertake projects in the park.

Desired outcomes

- The principles of ESFM guide management operations in the park and reserve and monitoring and research are carried out in accordance with ESFM requirements.
- The NPWS undertakes research as needed to provide information about natural and cultural heritage and human use in order to improve management. Priority will be given to those topics listed above and others developed under ESFM programs.
- Researchers from other organisations are encouraged to design programs to provide information which is directly useful for management purposes.
- Liaison is maintained with researchers to obtain as much mutual information and assistance as possible. The results of research will be required to be provided to the managers of the area.
- Research structures and long term markers are placed in locations which will minimise their visual impact and removed upon completion of the research.

7. Management Operations

Several management trails are located in the park. These provide access for park management including fire management, weed control and revegetation works. They also provide access to Mowarry Trig station and to walker accommodation and associated facilities at Mowarry Point and Hegartys Bay. Helipads may be constructed to facilitate NPWS management access and emergency access to Hegartys Bay and Mowarry Point.

A second trig station, Skelton Trig, is accessed from the Green Cape Road. Mowarry Trig is in a trigonometrical reserve, excluded from the park.

A NPWS caretaker is currently accommodated at one of the buildings in the Green Cape Lightstation complex to provide for security and maintenance of historic buildings and management of visitor use. Arrangements for management of the Green Cape Lightstation will need to be considered when more buildings are converted for visitor accommodation or when there is a need to engage commercial support for operations of the Lightstation and the Light to Light Walk. This might require licensing arrangements with the private sector and/or the construction of new caretaker accommodation in the southern part of the park. A NPWS radio tower is also located at the lightstation which requires maintenance and upgrades from time to time.

Small areas around the automated light and helipad at Green Cape continue to be managed by the Australian Maritime Safety Authority. There is also a small area at the point leased to the Bureau of Meteorology to maintain a fully automated weather station.

A number of electricity easements, a sewerage easement and a navigation beacon easement are located within the boundaries of the park north of the Pambula River. The electricity easements have been gazetted as part of the park and are maintained by Great Southern Electricity. The navigation beacon and sewerage easement have been excluded from the park and are maintained by Bega Valley Shire Council.

7.1 Access

Access to private property on the southern side of Pambula Lake is located through the park off Haycock Road. Public vehicle access to the Pambula Pool near Pambula Beach is located in an extension to Ben Boyd National Park. These roads are the only practical means of access to these properties.

The access road and associated dams near the Harris Daishowa woodchip mill were added to the park in December 2004. Formalisation of arrangements for use and maintenance of this road by the mill are needed.

Desired outcomes

- Management tracks and other management facilities mentioned above are maintained.
- Effective day to day management of the Green Cape Lightstation and visitor facilities in the southern part of the park is maintained.
- Access for maintenance of trigonometrical stations will continue to be permitted.
- New works, facilities or operations proposed by any organisation or individual (including NPWS) will not be permitted unless they are in accordance with this plan of management.
- The NPWS will liaise with relevant authorities regarding any management issues that may arise associated with easements through and adjacent to the northern section of the park.

Management response

- Maintain park roads and management trails as shown on Figure 1.
- Management arrangements for the Green Cape Lightstation will be reviewed and new arrangements implemented to suit the accommodation provided on the Light to Light Walk and at the Lightstation to best deliver the Light to Light Walk Strategy. NPWS will manage the accommodation but may engage commercial support for servicing the operation.
- Easement arrangements with Harris Daishowa chip mill and access to their water supply dams will be formalised.

8. Plan Implementation

This plan of management establishes the scheme of operations for Ben Boyd National Park and Bell Bird Creek Nature Reserve. Section 81 of the NPW Act requires that this plan shall be carried out and given effect to, and that no operations shall be undertaken in relation to the national park or nature reserve unless they are in accordance with the plan.

Implementation of this plan will be undertaken within the annual program of the NPWS Far South Coast Region.

Relative priorities for identified activities are set out in the table below. These priorities are subject to the availability of necessary staff and funds and to any special requirements of the Director-General or Minister. The implementation of the plan will be monitored and its success in achieving the identified objectives will be assessed.

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.

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 may be amended in accordance with section 73B of the NPW Act.

Table 2 Implementation Table

Action	Plan Ref
High priority	
Implement control measures where erosion has been accelerated by human activity or is threatening significant habitats or values.	4.1
Close and rehabilitate unnecessary vehicle tracks.	4.2
Implement PAS actions to protect the leafless orchid.	4.2
Undertake periodic checks for threatened species.	4.3
Implement recovery plans and PAS actions for threatened animal species.	4.3
Continue sandplot monitoring for native and feral animals.	4.3
Consult and involve the Eden LALC and the Aboriginal community in management of Aboriginal sites and values.	4.4
Develop cooperative management arrangements re adjacent Aboriginal lands.	4.4
Undertake protection works on Aboriginal middens located at Lennards Island, Haycock Point and the Pambula River, particularly Severs Beach.	4.4
Undertake periodic checks for weeds and continue to implement control measures, particularly for blackberry, bitou bush, sea spurge, bridal creeper and other species.	5.1
Undertake rabbit, fox and deer control. Especially important is the continuation of landscape scale fox control which has enabled the survival and growth of key populations of southern brown bandicoot and long-nosed potoroo within the park. Targeted predator control programs should also be implemented along the Light to Light Walk and around the facilities located along it.	5.1
Implement Ben Boyd National Park and Bell Bird Creek Nature Reserve Fire Management Strategy.	5.2

Action	Plan Ref
Coordinate fire management with Nadgee Nature Reserve, avoid use of heavy machinery in fragile areas and rehabilitate disturbed areas as soon as possible after fires.	5.2
Undertake fuel reduction and fire trail maintenance programs.	5.2
Establish ground parrot, eastern bristlebird and striated fieldwren monitoring program.	5.2
Formalise Lennards Island carpark and undertake erosion control on walking track.	6.2
Construct car parking areas and stabilise walking tracks to the coast near Walkers Rock, Bobs Rock, Pulpit Rock, Spot X and City Rock and between Lennards Island and North Head.	6.2
Close and rehabilitate tracks not shown on Figure 1.	6.2
Upgrade car parking and barriers at Mowarry Point carpark.	6.2
Upgrade Barmouth carpark and beach access.	6.2
Upgrade carpark at Leather Jacket Bay.	6.2
Upgrade walking track to the Bittangabee lightstation store.	6.2
Re-establish access to Pinnacles Beach.	6.2
Progressively develop the Light to Light Walk as a sustainable high quality walk.	6.2
Design and develop purpose-built walk-in only camping sites at Mowarry Point and Bittangabee Bay subject to environmental impact assessment.	6.2
The feasibility of commercial partnerships in support of the Light to Light Walk will be investigated and engaged if appropriate. These may include guided day and overnight walks and tours, servicing, maintenance, provision of supplies, transfers and links to other park activities and experiences.	6.2
Realign the Light to Light Walk at several locations, consistent with the Light to Light Walk Strategy.	6.2
Close and rehabilitate those sections of the Light to Light Walk that are rerouted in accordance with the Light to Light Walk Strategy and which are no longer required for public recreation or park management.	6.2
Consistent with the Light to Light Walk Strategy, construct new short walking track spurs from the Light to Light Walk to nearby points of interest.	6.2
Design and develop hard-roofed and/or tented accommodation and associated facilities, consistent with the Light to Light Walk Strategy, at Mowarry Point, Hegartys Bay (or Bittangabee Bay and surrounds) and, if required, at Green Cape.	6.2
Maintain park roads and management trails as shown on Figure 1.	6.2
Medium priority	
Undertake ongoing liaison with Council regarding management of Eden tip.	4.1
Check for fossils before and during activities in Devonian rocks.	4.1
Initiate research programs associated with fire in heathland.	4.2
Seek gating of track off Government Road, Eden.	4.2
Undertake a wildlife corridor and yellow-bellied glider study, and identify and enhance wildlife corridors where possible.	4.3

Action	Plan Ref
Seek concurrence of the Aboriginal community and include information on Aboriginal culture in brochures and on signs.	4.4
Identify, assess and undertake protection works for areas where boat landing is affecting Aboriginal sites.	4.4
Liaise with NSW Maritime to minimise impacts of boating activities on Aboriginal sites and promote awareness amongst boaters.	4.4
Investigate options for renaming part of Ben Boyd National Park in the Pambula Beach area to reflect its past and present importance to Aboriginal people.	4.4
Carry out necessary conservation works on the Green Cape Lightstation.	4.4
Continue pine eradication program in the park.	5.1
Prepare and implement a weed control plan.	5.1
Prepare and implement an introduced animal control plan.	5.1
Monitor the area around the Eden tip and undertake weed and feral animal control if necessary.	5.1
Close vehicle tracks in Bell Bird Creek Nature Reserve.	5.2
Prepare fire response plans for day use and camping areas.	5.2
Upgrade information signs at the Pinnacles area, Green Cape and on the Light to Light Walk.	6.1
Provide information signs for Barmouth walking track.	6.1
A system for managing overnight walker numbers on the Light to Light Walk will be introduced (e.g. via bookings, permits or local policies).	6.2
Maintain the boardwalk around Boyds Tower and make toilets suitable for disabled visitors.	6.2
Redesign Saltwater Creek and Bittangabee camping areas and undertake planting.	6.2
Consider feasibility and impacts of a walking track from Monaroo Bobberrer Gudu Aboriginal Cultural Centre.	6.2
Monitor Aboriginal sites along the Light to Light Walk to ensure impacts are not increasing as a result of implementing the Light to Light Walk Strategy.	6.2
Management arrangements for the Green Cape Lightstation will be reviewed and new arrangements implemented to suit the accommodation provided on the Light to Light Walk and at the lightstation to best deliver the Light to Light Walk Strategy. NPWS will manage the accommodation but may engage commercial support for servicing the operation.	7
Formalise access arrangements with Harris Daishowa.	7
Low priority	
Consider fish movements and upgrade crossings where necessary.	4.3
Progressively record, assess, and develop and implement conservation strategies for historic places.	4.5
Encourage research into the ecological effects of fire.	5.2
Investigate erection of information shelters for northern and southern sections of park.	6.1
Investigate, and if feasible construct, walking track from North Eden (Aslings Beach) to North Head.	6.2

Action	Plan Ref
Provide walking track around Pambula Beach lagoon.	6.2
Provide bus parking at Pinnacles carpark and disabled access to lookout.	6.2
Formalise Severs Beach carpark.	6.2
Upgrade the Disaster Bay lookout and extend the car park to cope with increasing visitation. Provide access to the lookout for people with disabilities. Install an accessible toilet to provide visitor amenity and limit environmental impacts.	6.2
Upgrade intersection of Leather Jacket Bay and Edrom Road.	6.2
Establish a formal bridal trail in the northern section of the park.	6.2
Provide circular walking track around Pambula Beach freshwater lagoon.	6.2
Complete day use facilities at Green Cape Lightstation.	6.2
Monitor horse riding north of Pambula Beach and review access if there are unacceptable impacts.	6.2

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