GIBRALTAR RANGE GROUP OF PARKS (Incorporating Barool, Capoompeta, Gibraltar Range,

Nymboida and Washpool National Parks and Nymboida and Washpool State Conservation Areas)

PLAN OF MANAGEMENT

NSW National Parks and Wildlife Service

Part of the Department of Environment and Conservation (NSW)

February 2005

This plan of management was adopted by the Minister for the Environment on 8 February 2005.
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This draft plan of management was prepared by the Northern Directorate Planning Group with assistance from staff of the Glen Innes East and Clarence South Areas of the NSW National Parks and Wildlife Service. The contributions of the Northern Tablelands and North Coast Regional Advisory Committees are greatly appreciated.
Cover photograph: Coombadjha Creek, Washpool National Park.
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FOREWORD

The Gibraltar Range Group of Parks includes Barool, Capoompeta, Gibraltar Range, Nymboida and Washpool National Parks and Nymboida and Washpool State Conservation Areas. These five national parks and two state conservation areas are located on the Gibraltar Range half way between Glen Innes and Grafton, and are transected by the Gwydir Highway. They are considered together in this plan because they are largely contiguous and have similar management issues.

The Gibraltar Range Group of Parks encompasses some of the most diverse and least disturbed forested country in New South Wales. The Parks contain a stunning landscape of granite boulders, expansive rainforests, tall trees, steep gorges, clear waters and magnificent scenery over wilderness forests. Approximately one third of the area is included on the World Heritage list as part of the Central Eastern Rainforest Reserves of Australia (CERRA).

The Gibraltar Range Group of Parks provides a large range of nature-based recreational opportunities. Large sections have been declared as wilderness; other sections provide opportunities for walking on formed tracks, car touring, camping and picnicking.

A draft plan of management for Gibraltar Range Group of Parks was placed on public exhibition from 27 July 2002 until 13 January 2003. The exhibition of the plan of management attracted 14 submissions which raised 17 issues. All submissions received were carefully considered before adopting this plan of management.

This plan of management establishes the scheme of operations for Barool, Capoompeta, Gibraltar Range, Nymboida and Washpool National Parks and Nymboida and Washpool State Conservation Areas. It replaces the 1981 plan of management for Gibraltar Range National Park. In accordance with sections 75 and 75A of the *National Parks and Wildlife Act 1974*, this plan of management is hereby adopted.

BOB DEBUS

MINISTER FOR THE ENVIRONMENT

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TABLE OF ABBREVIATIONS

BNT Bicentennial National Trail.

CERRA The World Heritage Central Eastern Rainforest Reserves of

Australia, a World Heritage property which includes some 50 separate reserves in north east New South Wales and south east

Queensland.

EPBC Act Commonwealth's Environment Protection and Biodiversity

Conservation Act (1999).

IUCN The World Conservation Union (International Union for the

Conservation of Nature and Natural Resources).

LPI Land and Property Information, New South Wales.

MOU Memorandum of Understanding.

NPW Act NSW National Parks and Wildlife Act, 1974.

NPWS NSW National Parks and Wildlife Service.

ROTAPs Rare or Threatened Australian Plants.

RTA NSW Roads and Traffic Authority.

SFNSW State Forests of NSW.

TSC Act NSW Threatened Species Conservation Act, 1995.

1. INTRODUCTION

1.1 THE PLAN AND PLANNING PROCESS

A plan of management outlines how an area will be managed during the life of this plan. The *National Parks and Wildlife Act* 1974 (NPW Act) requires that a plan of management be prepared for each national park in NSW. A plan of management prepared for a national park under the NPW Act is a legal document that provides a scheme of operations for the park. Most of the operations proposed for a park will be undertaken by or on behalf of the NSW National Parks and Wildlife Service (NPWS). Some activities however, such as bee keeping and guided tours, can be approved by the NPWS to be undertaken by other authorised individuals or organisations.

A plan of management, and the proposed operations, must be consistent with the purpose and objectives of the NPW Act. It is prepared within the context of existing legislation and NPWS policies as well as the values, condition and proposed future use of each park. A plan of management guides the NPWS and informs the community about management directions for a park.

Once the Minister has adopted a plan of management, only operations that are consistent with the plan may be undertaken within the planning area. This plan will also apply to any future additions to the parks and reserves that comprise the planning area. Where management strategies or works are proposed for the planning area or any additions to the planning area that are not consistent with this plan, an amendment to the plan will be required.

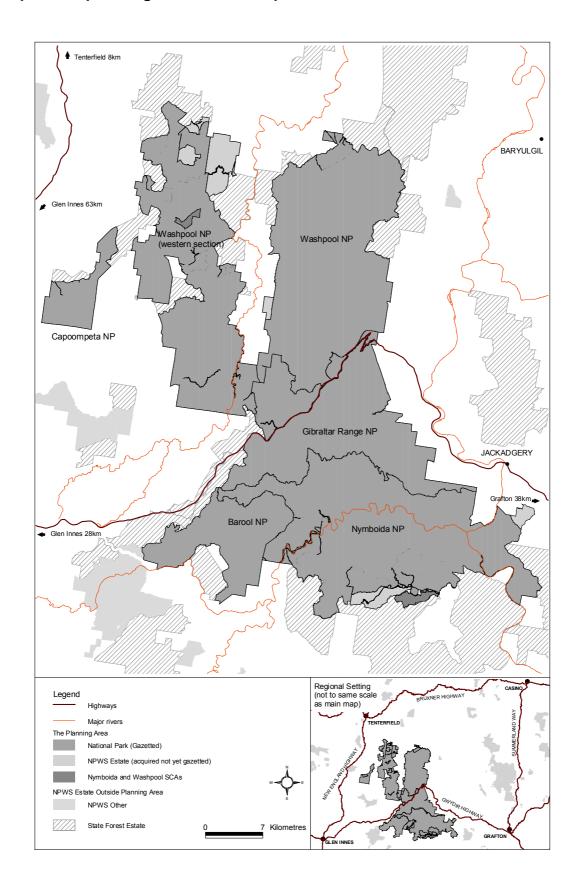
1.2 THE PLANNING AREA

The Gibraltar Range Group of Parks are located on the Gibraltar Range half way between Glen Innes and Grafton, and bisected by the Gwydir Highway. The planning area totals approximately 150,620 hectares and extends from the Great Dividing Range and the New England Tablelands in the west, across the Demon Fault to the base of the Great Escarpment in the east. Altitudes range from approximately 200 to 1,490 metres above sea level. The parks are located within Tenterfield, Severn, Copmanhurst and Pristine Waters local government areas.

The Gibraltar Range Group of Parks comprises the following national parks declared under the NPW Act:

- Barool National Park;
- Capoompeta National Park;
- Gibraltar Range National Park;
- Nymboida National Park;
- Washpool National Park;
- Nymboida State Conservation Area; and
- Washpool State Conservation Area.

Map 1: The planning area's national parks and state conservation areas.



In addition, the planning area includes roads vested in the name of the Minister for the Environment (referred to as 'Ministerial roads').

Collectively, these lands are referred to as the "**planning area**" in this document and are shown on map 1.

Under section 72A of the NPW Act, a single plan may be prepared for a combination of related protected areas. The five national parks and two state conservation areas are considered together in this plan because they are largely contiguous and have similar management issues.

The planning area encompasses some of the most diverse and least disturbed forested country in New South Wales. The planning area contains a stunning landscape of granite boulders, expansive rainforests, tall trees, steep gorges, clear waters and magnificent scenery over wilderness forests.

Approximately 109,105 hectares (72% of the planning area) is declared as wilderness. In addition, 45,200 hectares (30% of the planning area) within Washpool and Gibraltar Range National Parks is included on the World Heritage list as part of the Central Eastern Rainforest Reserves of Australia (CERRA).

The parks within the planning area provide a large range of nature-based recreational opportunities. Large sections of the planning area have been declared as wilderness; other sections provide opportunities for track-based walking, car touring, camping and picnicking.

1.3 PARK DEDICATION

Gibraltar Range National Park was proposed following the opening of the Gwydir Highway in 1960, with the park being reserved in 1963. Recent additions occurred in 1999 as part of the Regional Forest Agreement (RFA) process (see below), when the Visitor Information Centre on the Gwydir Highway and adjoining former highway depot were added to the Park. In 2003 the Boundary Creek Falls area (61 hectares) of Moogem State Forest was incorporated into Gibraltar Range National Park.

Washpool National Park was initially reserved in 1983. The section of the park west of the Timbarra (Rocky) River, referred to as "west Washpool" in this plan, was initially reserved in 1997 with subsequent additions. Further lands that link these two areas have been purchased but not yet gazetted as park.

Nymboida National Park was declared in 1980. The wilderness core of the park along the Mann River was added in 1990. Recent RFA additions include the Nymboida River camping area which was formerly state forest, and leasehold land on the Mann River and Cunglebung Creek areas.

Barool and Capoompeta National Parks were formerly state forest declared as national parks in 1999 as an outcome of the RFA.

Nymboida State Conservation Area was reserved on 1st January 2003 through the CRA process. It has an area of 528 hectares.

Washpool State Conservation Area was reserved on 1st January 2003 through the CRA process. It has an area of 246 hectares.

Regional Forest Agreements

The North East NSW Regional Forest Agreement covers the region from the Queensland border to the Hunter Valley, thereby including the planning area. The process leading up to the RFA provided for major additions to the reserve system, including establishment of Barool and Capoompeta National Parks and additions to other parks in the planning area.

RFAs are one of the principle means of implementing the National Forest Policy Statement of 1992. Under this Statement Commonwealth, State and Territory governments agreed to work towards a shared vision for Australia's forests. This aimed to maintain native forest estate, manage it in an ecologically sustainable manner and develop sustainable forest-based industries. The Statement provided for joint comprehensive assessments of the natural, cultural, economic and social values of forests. These assessments formed the basis for negotiation of RFAs that provide, amongst other things, for Ecologically Sustainable Forest Management.

1.4 LANDSCAPE CONTEXT

Natural and cultural heritage and on-going use are strongly inter-related and together form the landscape of an area. Much of the Australian environment has been influenced by past Aboriginal and non-Aboriginal land use practices, and the activities of modern day Australians continue to influence bushland through recreational use, cultural practices, the presence of introduced plants and animals and in some cases air and water pollution.

Both Aboriginal and non-Aboriginal people place cultural values on natural areas, including aesthetic, social, spiritual, recreational and other values. Cultural values may be attached to the landscape as a whole or to individual components, for example to plant and animal species used by Aboriginal people. This plan of management aims to conserve both natural and cultural values. For reasons of clarity and document usefulness natural and cultural heritage, non-human threats and on-going use are dealt with individually, but their inter-relationships are recognised.

1.5 PREVIOUS PLANS IN THIS AREA

This plan replaces the 1981 plan of management for Gibraltar Range National Park. This is the only plan that has been adopted under the NPW Act for the planning area.

A draft plan of management for Gibraltar Range and Washpool National Parks was placed on exhibition in early 1990, generating 24 submissions. The previous draft plan of management and the public submissions it generated were considered in the preparation of this new draft plan.

2. MANAGEMENT CONTEXT

2.1 WORLD HERITAGE

Australia ratified the International Convention for the Protection of World Cultural and Natural Heritage (the World Heritage Convention) in 1974. As part of its framework for international cooperation in the protection of cultural and natural heritage, the Convention provides for the listing of properties of outstanding universal value. Arising from the World Heritage Convention are management principles that apply to the management of those sections of the planning area that are World Heritage listed (refer to appendix 4).

Approximately 45,200 hectares of the planning area has been included on the World Heritage list as part of the Central Eastern Rainforest Reserves of Australia (CERRA) World Heritage Area (refer to map 2). CERRA comprises over 40 separate reserves including Barrington Tops, Oxley Wild Rivers, Werrikimbe, New England, Dorrigo, Border Ranges, Mt Warning, Lamington and Springbrook National Parks.

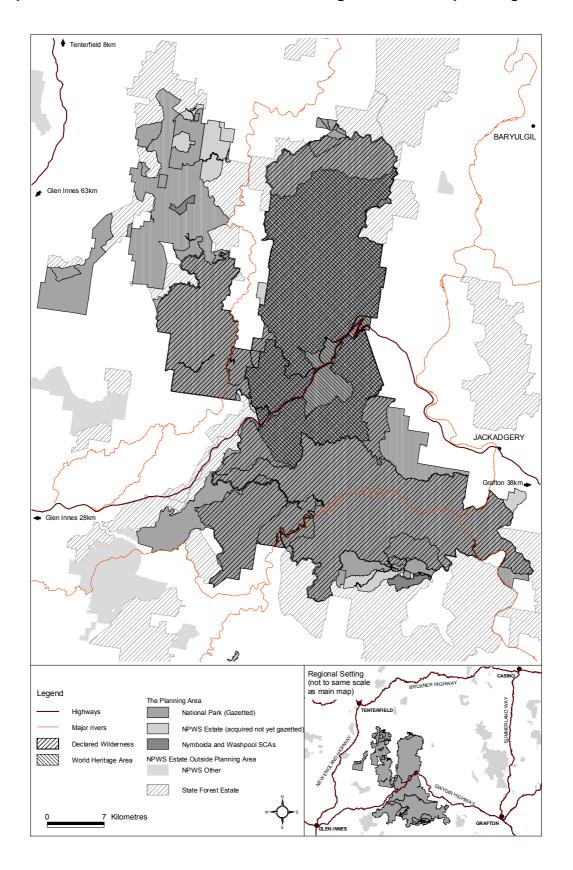
The CERRA World Heritage Area was inscribed on the World Heritage list in 1986 because of its ancient and isolated refugia of rainforest communities with a great variety of plant and animal species. It satisfies three of the four criteria for natural values of outstanding universal significance:

- a record of the Earth's evolutionary history (criterion I);
- outstanding examples of ongoing geological and biological processes (criterion II); and
- significant areas for the conservation of biodiversity, including threatened plants and animals (criterion IV).

Under the World Heritage Convention, Australia has obligations to ensure the identification, protection, conservation and presentation of its areas of outstanding universal value, so that these areas can be appreciated by future generations. Management principles, based on World Heritage Convention are regulated under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In order to provide a management overview for the fragmented CERRA property, a strategic planning document has been prepared jointly by the NSW NPWS, Queensland Parks and Wildlife Service and the Commonwealth Environment Australia. This document, a "Strategic Overview for Management of World Heritage CERRA" (CERRA, 2000) will guide management of the planning area at a strategic level.

Map 2: Declared wilderness and World Heritage areas in the planning area.



2.2 NATIONAL PARK OBJECTIVES

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 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; and
- provide for appropriate research and monitoring.

2.3 STATE CONSERVATION AREA OBJECTIVES

State conservation areas are reserved under the NPW Act to protect and conserve areas that contain significant or representative ecosystems, landforms or natural phenomena or places of cultural significance; that are capable of providing opportunities for sustainable visitor use and enjoyment, the sustainable use of buildings and structures or research; and that are capable of providing opportunities for uses permitted under other provisions of the Act.

Under the Act, state conservation areas are managed to:

- conserve biodiversity, maintain ecosystem functions, protect natural phenomena and maintain natural landscapes;
- · conserve places, objects and features of cultural value;
- provide for the undertaking of uses permitted under other provisions of the NPW Act (including uses permitted under section 47J such as mineral exploration and mining), having regard to the conservation of the natural and cultural values of the state conservation area:
- provide for sustainable visitor use and enjoyment that is compatible with conservation of the area's natural and cultural values and with uses permitted in the area;
- provide for sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to conservation of the area's natural and cultural values and with other uses permitted in the area; and
- provide for appropriate research and monitoring.

The NPW Act also requires review of the classification of state conservation areas every 5 years to determine whether they should receive either a national park or nature reserve classification. The classification review for state conservation areas is described in section 47M of the NPW Act and is undertaken in consultation with the Minister administering the *Mining Act 1992*.

2.4 WILDERNESS MANAGEMENT PRINCIPLES

Wilderness identification and management principles are determined by the *Wilderness Act 1987*. A wilderness area is defined as an area where:

- Plant and animal communities are in a substantially unmodified state, or can be restored to such a state;
- It is of sufficient size to make its maintenance in such a state feasible; and
- It offers opportunities for solitude and appropriate self-reliant recreation.

In accordance with section 9 of the Wilderness Act, wilderness areas will be managed according to the following wilderness management principles:

- to restore (if applicable) and to protect the unmodified state of the area and its plant and animal communities;
- to preserve the capacity of the area to evolve in the absence of significant human interference; and
- to permit opportunities for solitude and appropriate self-reliant recreation.

Three small wilderness areas were declared in the planning area in 1982. These were among the first wilderness areas legally protected in NSW. Two of these wilderness areas (Dandahra and Cooraldooral) within Gibraltar Range National Park now form part of the much larger Bindery-Mann Wilderness, which also includes most of Nymboida National Park. The third (Haystack) forms part of the Washpool Wilderness, which encompasses much of the Washpool National Park. Separated by the Gwydir Highway, the Bindery-Mann and Washpool Wilderness cover 93,100 hectares of the planning area (see map 2).

2.4 SPECIFIC MANAGEMENT OBJECTIVES FOR THE GIBRALTAR RANGE GROUP OF PARKS

- To integrate management and to promote the planning area as a single management unit;
- To identify, protect, conserve, present and, where appropriate, rehabilitate the World Heritage values of the Gibraltar Range Group of Parks.
- To pass on the heritage and wilderness values to future generations in as good or better condition than at present.
- To maintain or restore natural diversity and processes in the rainforests, and significant species and vegetation communities (refer to lists in appendices 1 and 2).
- To maintain or enhance water quality and aquatic habitats in the catchment of all rivers, dry escarpment creeks and tributaries of the Mann River valley.
- To minimise disturbance of highly erodible granitic soils and maintain or enhance landscape quality.

- To liaise and work in partnership with the Aboriginal community to protect and conserve Aboriginal objects and places of significance.
- To assist visitors to appreciate and enjoy the planning area by providing a range of ecologically sustainable, nature-based recreation settings.
- To encourage and facilitate research into biodiversity, and control of threatening processes within the planning area.
- To present the parks in ways that foster community understanding and appreciation of its values.
- To initiate and maintain close liaison, education and participation with park neighbours regarding fire, pest, cultural heritage and boundary management.

3. CONSERVATION AND MANAGEMENT OF NATURAL HERITAGE

3.1 WORLD HERITAGE

Background information

The planning area forms a major component of CERRA which contains the largest remaining stand of coachwood dominated warm temperate rainforest and a unique mosaic of eucalypt and rainforest communities, much of which is in a wilderness state (refer to section 2.1 and appendix 4).

The following value statements identified for this World Heritage property are directly relevant to the planning area (Hunter 1999).

 CERRA rainforests are an outstanding example of ecosystems and taxa from which modern biota are derived. These rainforests are exceptionally rich in primitive and relict species, many are similar to fossils from Gondwana.

The planning area contains examples of many major plant evolutionary strands. Good examples of warm temperate rainforest indicate the important refugial nature of the area. The planning area provides significant habitat for threatened species, such as the rufous scrub-bird, parma wallaby and spotted-tailed quoll, which are considered Gondwana relic species.

 CERRA includes an outstanding range of ecosystems and taxa, which demonstrate the origins and rise to dominance of cold adapted/dry adapted flora.

The unusual mosaic pattern of rainforest, sclerophyll forests, heathlands and their ecotones support the thesis that sclerophyll species and the ancestors of eucalypts are believed to have first arisen in rainforests.

• CERRA contains significant centres of endemism where ongoing evolution of flora and fauna species is taking place.

The planning area constitutes an important centre of endemism for plant and animal species. The rocky outcrops, heathlands and shrubby forests within the planning area contain 14 endemic plant species such as the waratah (*Telopea aspera*) and several grevilleas. In the rainforests, endemic species of fauna include the local sphagnum frog (*Philoria* sp. nov. B), velvet worm and spiny cray.

 CERRA includes the principal habitats of a large number of threatened species of plants and animals. These species are of outstanding universal value from the point of view of science and conservation, including relict and primitive taxa.

A list of rare and threatened flora and fauna species is included in appendices 1 and 2. The planning area provides the principal or major habitat for several of these, including the parma wallaby, spotted-tailed quoll, stuttering frog, rufous scrub-bird and powerful owl.

Desired outcome

• The World Heritage areas of the planning area are *identified*, *protected*, *conserved*, *presented* and, where necessary, *rehabilitated* in accordance with the principles of the World Heritage convention.

Management strategies

Identification

- In consultation with the World Heritage Branch of Environment Australia, assess the whole planning area to ascertain its suitability for nomination on the World Heritage list on the basis of both the rainforest and eucalypt themes.
- Facilitate appropriate research that adds to the knowledge of World Heritage values in the planning area (refer to section 5.3).
- Maintain data bases on plant and animal records, including invertebrates, and incorporate new location information in a systematic and timely manner (refer to sections 4.3 and 4.4).

Protection

- Ensure that the management of the World Heritage listed component of the planning area is managed in a manner consistent with the World Heritage Management Principles (refer to appendix 4) and the strategic planning document "Strategic Overview for Management of World Heritage CERRA" (CERRA, 2000).
- Ensure the environmental assessment of proposals addresses the potential impacts on World Heritage values.
- Consult with local Councils on impacts of developments proposed for adjacent lands to ensure World Heritage values are not threatened by these proposals.
- Liaise with the RTA and Severn Shire Council to ensure roadside management of the Gwydir Highway corridor enhances and contributes to the presentation of World Heritage values (refer to sections 3.5 and 3.9).

Conservation

- Promote the conservation of World Heritage values in the preparation and implementation of the following management programs:
- Recovery Plans and Threat Abatement Plans for threatened species (refer to sections 4.3 and 4.4);
- Fire Management Strategies, promoting the exclusion of fire from rainforest (refer to section 4.6); and
- Pest Management Strategies, particularly to prepare Restoration and Rehabilitation Plans for rainforest communities including the targeted control of invasive rainforest weeds (refer to section 4.7).
- Develop a program to assess the condition of World Heritage values.
- Provide training opportunities for NPWS staff to improve understanding of World Heritage values and corresponding threatening processes.

Rehabilitation

- Promote the rehabilitation of World Heritage values in through the following:
- Restoration and rehabilitation of degraded plant communities (refer to section 4.7);
- Rehabilitation of disturbed sites and former logging tracks (refer to section 4.2);
- Control of pest animals (refer to section 4.8).

Presentation

- Promote and provide information and education on CERRA including the following:
- Emphasise the World Heritage theme for interpretation of CERRA (refer to section 5.2);
- World Heritage status and values of all areas that are part of the World Heritage CERRA via signage and brochures at a level commensurate with their use ie high promotion for day use/ camping areas (refer to section 5.2);
- Promote the parks of the CERRA as a single entity through consistent information and design of signage;
- Information to the tourism industry and tour operators to assist in presenting the World Heritage values of the area (refer to section 5.1.8).

3.2 LANDSCAPE AND GEOLOGY

Background information

The planning area includes a dramatic landscape of steep-sided valleys, broad ridges and escarpments covered with natural vegetation. The altitude in the planning area ranges from less than 200 metres in the Nymboida River valley to 1490 metres along the Great Dividing Range in Capoompeta and west Washpool National Parks. Numerous lookouts are located in the parks of the planning area, including Raspberry, Granites, Vinegar Hill, Four Mile Trig and Billyrimbra Lookouts, and offer extensive views over the surrounding parks.

The dominant landform features of the planning area are:

- a series of high ridges and plateaux which form the Gibraltar Range;
- the Demon Fault which intersects the planning area and forms the main course of the Timbarra (or Rocky) and Mann Rivers, and Boundary, Raspberry and Cooraldooral Creeks;
- the Great Eastern Escarpment;
- steep-sided valleys and steeply inclined creek courses, dissecting and draining the planning area;
- cascades, clear running streams and waterfalls, including the Dandahra Falls, Little Dandahra Creek and Coombadjha Creek;
- dramatic granitic rock formations, including outcrops and balancing tors; and
- the "Morven monument" which is a volcanic dyke.

The landforms of the planning area are a legacy of ancient volcanic activity, followed by faulting and uplift. The ancient igneous complex east of the Demon

Fault is in stark contrast with the even older underlying meta-sedimentary rocks that dominate the western half of the planning area. The Demon Fault marks sharp boundaries between geologies. Although now inactive, slippage along the fault in the Triassic era is thought to have been approximately 20 kilometres (McPhie & Ferguson 1983).

Most of the igneous units date from the late Permian (approximately 250 million years ago) and include the following broad groupings of rock (Fox 1983, Barnes *et al.* 1995):

- andesite and rhyodacites which underlie much of the eastern half of Washpool National Park;
- an intrusion of adamellite in the south-east of Washpool National Park;
- granites, which cover the Dandahra Plateau of the Gibraltar Range; and
- Emmaville volcanics occurring in isolated peaks in the western section of Washpool National Park and Barool National Park.

The tors, which are major features of the landscape of Gibraltar Range National Park, arise from granite, rhyodacite and adamellite. The most spectacular have been weathered from the Dandahra Creek granites.

Desired outcomes

- The integrity of landscape and geological values in the planning area are preserved.
- Disturbed sites are rehabilitated.

Management strategies

- Locate and design management infrastructure and visitor facilities to minimise their visual impact from locations within and outside the planning area.
- Identify any significant areas of disturbance and where practicable and in consultation with relevant agencies implement measures to stabilise disturbance.
- Encourage research into the geology and geological features of the planning area.

3.3 NATIVE VEGETATION

Background information

The planning area is one of the most important and floristically diverse areas in NSW. This is due to a range of factors including the natural isolation of the area, the variation in geology and the large range of elevation, topography and soil types.

Detailed floristic surveys have been conducted in the planning area over the past 20 years (Fox 1983, Floyd 1990, Hunter 1998 & 2000, Sheringham & Hunter 2002, Benwell and Kooyman 2000). A total of 61 Rare or Threatened Australian Plant Species (ROTAPs) have been recorded in the planning area. This includes 9 species listed as either endangered or vulnerable under the TSC Act and 14 species endemic to the planning area and adjacent lands (refer to appendix 1 for ROTAP flora list). Over 30 different plant communities have been identified in the planning area, several of which only occur within or immediately adjacent to the parks.

The complex mosaic distribution of rainforests and wet sclerophyll forests in the planning area are of global significance (Adam 1987). The major areas of rainforest are in the eastern section of Washpool National Park. Rainforest also occurs in Gibraltar Range, Nymboida and Barool National Parks. Some of the rainforest in Gibraltar Range National Park was logged before the park's dedication. Small but important refugial stands of rainforest are also found in the western section of Washpool National Park. Despite the high altitudes no cool temperate rainforest is known to occur in the planning area, though some characteristic species are present and the area is likely to be important for bird migration between the cool temperate rainforests of the Border Ranges and Dorrigo Plateau.

The warm temperate rainforests in the planning area include the Willowie Scrub in Washpool National Park which is the largest coachwood forest remaining in the world. Stands of lowland subtropical rainforest are located along Coombadjha Creek below 400 metres. Cool subtropical rainforest is restricted to moist aspects of gully heads with deep soils or as islands within the warm temperate rainforest. Dry rainforest is also very limited, with stands located in the middle and lower reaches of Washpool Creek. These forests contain the best remaining example of a stand of large red cedars in NSW.

Tall open forest is another major feature of the planning area. These forests can have a well-developed rainforest understorey or a more open, grassy understorey featuring grass-trees and/or tree-ferns and, in some places, cabbage-tree palms. Dominant canopy species include New England blackbutt (*Eucalyptus andrewsii*), tallowwood (*E. microcorys*), Sydney blue gum (*E. saligna*) and brush box (*Lophostemon conferta*). Dry sclerophyll forest with a heathy understorey also occurs. Six rare or threatened species of eucalypt have been recorded, two of which are endemic to the planning area. Several eucalypt species, such as coastal blackbutt (*E. pilularis*) and needlebark stringybark (*E. plachaniana*) are at distributional or altitudinal limits.

Vegetation communities on rock outcrops, wet and dry perched heathlands and grasslands are particularly important as they contain the greatest concentration of significant species including rare, threatened or geographically restricted species, or species found in the planning area at the limits of their distribution. These communities are among the most northerly examples of sub-alpine vegetation in Australia. Restricted to islands of shallow soils in rocky areas, heathlands tend to be a continuation of the shrubby understorey in surrounding dry forests. They are species rich and spectacularly colourful during the flowering season. The local species of waratah (*Telopea aspera*) is a feature of the dry forests and heathlands in late spring/early summer.

Desired outcomes

- Conservation of native plant species and communities.
- Vegetation structural diversity and habitat values are conserved.
- Increased ecological knowledge of rare plants and communities.
- Increased knowledge of fire ecology requirements for vegetation communities.

Management strategies

 Identify and map sensitive vegetation communities and locations of rare or threatened plant species.

- Develop a program to monitor selected sample sites within each community for species composition and abundance and response to fire.
- Promote research into the ecology of significant species and their response to fire and other potential threats (refer to section 5.3).

3.4 NATIVE ANIMALS

Background information

The planning area is significant for its faunal biodiversity and is at the junction of three biogeographic regions (Smith *et. al.* 1992). The parks provide habitat for 331 vertebrate species, including 179 species of birds and 10 species of fish. This is more than half of the species which are known to occur in north-east NSW (RACAC 1996). A total of 34 threatened species, and 29 species of conservation concern have been recorded in the planning area (refer to appendix 2).

A recent report has been prepared for the invertebrate fauna of the CERRA (Williams 2002). Endemic species of velvet worm (*Nodocapitus inornatus* type locality Gibraltar Range) and spiny cray (*Euastachus suttoni*) have been previously described from the planning area.

The Nymboida and Mann Rivers within Nymboida National Park contain part of the only remaining wild breeding population of the critically endangered eastern freshwater cod (*Muccullochella ikei*). Cod are restricted to clear flowing streams with gravel or rocky substrate, and prefer deeper parts of the river with large amounts of in-stream cover such as snags, rocky islands and large boulders (Rowland 1993, 1996).

The rufous scrub-bird (*Atrichornis rufescens*) is found in the warm temperate rainforests and ecotones of the planning area, with records from Gibraltar Range and Barool National Parks. This species is a member of an endemic relict family of songbird (*Atrichornidae sp.*) which arose at the time of Gondwana. Populations have been declining over the past 200 years and the planning area is now a stronghold for this vulnerable species. The records from the Gibraltar Range form a large proportion of the total known remaining population of the species.

The endangered Hastings River mouse (*Pseudomys oralis*) is known to inhabit open sclerophyll forest in Washpool National Park. This species has recently been re-recorded in the western section of Washpool National Park following an absence of 16 years. This absence was triggered by a severe wildfire event that occurred in 1986. Another population of Hastings River mice is known to be secure in a recent addition to the north-eastern section of Washpool National Park.

Records of common wombats (*Vombatus ursinus*) from the planning area and nearby Butterleaf National Park and State Forest are considered highly significant. This population represents the most northerly distribution of the common wombat in Australia. Sarcoptic mange has been identified as a serious threat to wombats and is likely to be adversely affecting the population in the planning area.

The locally endemic species of sphagnum frog (*Philoria sp.nov.B*), is currently being formally described and named. It has been recorded from all parks in the planning area except Capoompeta National Park and is found in rainforests and wet open forest, near streams and seepage lines. The planning area also

contains populations of the pouched frog (*Assa darlingtoni*), a curious rainforest-dependent species whose tadpoles are raised under skin flaps on the males' thighs.

Two high order predators found in the planning area, and considered to be at possible risk of extinction, include the powerful owl (*Ninox strenua*) and spotted-tailed quoll (*Dasyurus maculatus*). Both require large territories. The powerful owl has been recorded throughout the planning area. The extensive areas of tall open forest, with their abundance of hollow-bearing trees, are considered optimal habitat. The spotted-tailed quoll has been widely recorded through much of the planning area except Capoompeta National Park, with a relatively large concentration in Washpool and Gibraltar Range National Parks. Further research is required to determine the status of this species in the planning area.

The planning area is also important for the protection of small to medium-sized marsupials, such as the rufous bettong (*Aepyprymnus rufescens*), long-nosed potoroo (*Potorous tridactylus*) and parma wallaby (*Macropus parma*). Considered extinct in the wild until its rediscovery in 1960, the parma wallabies in Washpool, Gibraltar Range and Barool National Parks constitute a significant percentage of current known populations of the species. The rocky outcrops and escarpment cliffs provide important habitat for brush-tailed rock wallabies (*Petrogale penicillata*), which are widespread throughout the planning area.

The NPWS has an obligation to prepare recovery plans for threatened species and endangered populations listed on the TSC Act. To date, no recovery plans have been adopted for any threatened species that occur in the planning area, however, plans for 24 of the species within the planning area are currently in preparation (refer to appendix 2). A recovery plan is also in preparation for the eastern freshwater cod under the *Fisheries Management Act 1994*.

Monitoring of threatened species is required to ensure recovery actions are assisting the recovery of the species. Monitoring programs are currently in place within the planning area for the rufous scrub-bird, Hastings River mouse and giant barred frog (*Mixophyes iteratus*).

The planning area includes lands identified as containing high quality dingo habitat. Although unprotected under Schedule 11 of the *NPW Act*, the dingo is a native animal and is regarded as an integral part of the planning area's natural systems. The continued survival of the dingo is endangered by cross breeding with feral dogs as well as eradication by humans.

Wild dogs, including feral dogs, dingoes and their hybrids, are declared pest animals under the *Rural Lands Protection Act 1998* (RLP Act) throughout NSW. Hence, the NPWS has a statutory obligation to control wild dogs on its estate, "to the extent necessary to minimise the risk of the pest causing damage on any land". Under the RLP Act public lands which are identified as significant habitat for dingoes in Schedule 2 of the Wild Dog Control Order will be managed with the dual objectives of managing wild dogs while at the same time conserving dingoes in core areas.

The planning area contains areas which are Schedule 2 areas, requiring public land managers, such as the NPWS, to assist in the preparation of a local wild dog management plan in accordance with the RLP Act. These plans are to identify methods for the control of wild dogs and the conservation of dingoes in core

areas of the (park or reserve). Before adoption and implementation the plans require the approval of all parties, including the NPWS.

In working with planning area neighbours in protecting their stock from attack by either wild dogs or dingoes, the NPWS will focus on reducing the numbers of wild dogs or dingoes in the vicinity of stock, especially sheep, thereby reducing the chances of attack. The NPWS will not attempt to eliminate the dingo from its core conservation areas within the planning area.

The number of pied currawongs (*Strepera graculina*) scavenging for food at the Mulligans visitor area and Bellbird camping area have escalated in recent years. The currawong is also known to predate on other species of birds. NPWS has erected signage to discourage feeding of the birds.

Desired outcomes

- The diversity of native animal species in the planning area is conserved.
- The habitat and populations of all threatened fauna species and significant species, including endemic invertebrate species, are protected and maintained.
- Increased knowledge of the ecology and distribution of species including understanding effects of fire on small mammals and the impact of weeds.
- Reduction in currawongs scavenging in visitor areas and therefore an expected reduction in impacts on other bird species.
- Sustainable management of dingos in Dingo Management Areas.

- Maintain current monitoring programs and promote research into the distribution, relative abundance, population dynamics, genetics and habitat requirements of significant fauna, or those likely to suffer population decline and/or potential threats, in the planning area (refer to section 5.3).
- Maintain appropriate signage to discourage visitors from feeding currawongs and other native wildlife.
- Encourage community awareness of the significance of the local common wombat population.
- Promote research into strategies to control and limit the effect of sarcoptic mange in common wombats.
- Liaise with NSW Fisheries and local fishing clubs about installing interpretive signs at the Nymboida River camping area and other strategic locations along the Nymboida and Mann Rivers about the significance of, and legislative protection afforded to, the eastern freshwater cod (refer section 5.2).
- Support NSW Fisheries in their implementation of regulations aimed at protecting the eastern freshwater cod, such as seasonal fishing closures and other restrictions.
- Identify core conservation areas for dingos and prepare the necessary strategy under the *Rural Lands Protection Act* to protect pure breed dingos whilst managing potential impacts from wild dogs on neighbouring agricultural lands (refer to section 5.3).

- In the proposed MOU with the RTA and Severn Shire for the Gwydir Highway corridor, address fauna protection devices and wildlife warning signage (refer to section 3.9).
- Promote research into the genetics, movement, population dynamics and distribution of dingos so as to define core Dingo Management Area boundaries.

3.5 CATCHMENT AND RIVER PROTECTION

Background information

The natural vegetation and undisturbed nature of much of the planning area contributes to the maintenance of high water quality. The high water quality and catchment values of the planning area are reflected in the importance of the area as habitat for a diversity of frog species and the endangered eastern cod. Downstream of the parks, rural communities also rely on this clean water for domestic and stock use.

Most of the planning area is at the head of the catchment with the exception of the Timbarra (Rocky) and Mann Rivers which flow into and through the planning area. Almost all of the planning area drains into the Clarence River system, mostly via the Timbarra River, the Mann River or Washpool Creek. The western extremities of the planning area lie to the west of the Great Dividing Range and drain into the Deepwater River being part of the Murray-Darling catchment

The planning area is also important for the maintenance of rivers which, together with their sub catchments, have significant scenic, nature conservation, recreation and scientific values (Helman 1981, Hughes 1981, Cameron-McNamara 1987). Washpool Creek is the largest and longest watercourse in north-east NSW with an essentially undisturbed catchment and a riparian corridor dominated by rainforest vegetation (Hughes 1981). In addition to Washpool Creek, the Timbarra, Mann and Nymboida Rivers and Coombadjha Creeks have been identified as having wild river values.

Lantana is a significant threat in terms of obstructing river and creek valleys at the lower elevations and displacing native vegetation understorey (refer section 4.7).

Desired outcomes

- The parks' catchment values are maintained and the water quality and health of park streams is as high as possible.
- The wild river values in the planning area are protected, and investigation of the declaration of wild rivers is pursued.

- Seek the development of a MOU with the RTA and Severn Shire Council for the maintenance of drainage and incident management (accidents with the potential to contaminate the parks) of the Gwydir Highway (refer to section 3.9).
- Assist in maintaining water quality in the adjoining Nymboida River by managing the impact of visitor use and infrastructure at the Nymboida River camping and day use area.

- Improve the effectiveness and quality of catchment values through pest control programs that target invasive flora and fauna that degrade ecosystem and stream functions.
- Ensure park management activities minimise impacts on the water quality in the streams of the planning area.
- The investigation of wild rivers in the planning area, pursuant to Section 61 of the NPW Act, will be undertaken. The highest priority for investigation are Washpool and Coombadjha Creeks.

3.6 FIRE MANAGEMENT AND PROTECTION

Background information

Fire is regarded as a natural phenomenon and one of the physical factors of the Australian environment essential for maintaining some native flora, fauna and habitat diversity. NPWS recognises that protection of life and property and prevention of native plant and animal extinction is also dependent on effective fire management.

Fire frequency, intensity, season of occurrence and the subsequent path of fire, are major factors influencing distribution and composition of plant and animal communities. Development of appropriate fire regimes requires an understanding of the fire ecology of native flora and fauna species. An inappropriate regime could threaten the parks' natural and cultural values. Fire has the potential to threaten human life and damage park recreational facilities and neighbouring property.

Available fire history records for the period 1964/65 to 1997/98 show escapes from burning off activities and arson are the main causes of wildfire, with occasional fires caused by lightning.

Large areas within the parks have a history of high fire frequency. Historically, areas used for grazing were burnt on a regular basis to encourage growth of young grasses for cattle production. In the past 10 years, 35% of moist forests have experienced high fire frequency and the boundaries of rainforests within the parks have been burnt. Frequent fires may have also caused a decline in species diversity within the planning area.

Primary NPWS objectives in fire management are to:

- Reduce the bushfire threat to human life and property both within and immediately adjacent to areas where the NPWS has a statutory responsibility;
- Effectively manage bushfires in order to maintain species and habitat diversity, and to conserve the natural, cultural and recreational features of NPWS areas; and
- Cooperate with other organisations in fire management planning and suppression within any given area.

Under the *Rural Fires Act 1997*, NPWS is a recognised fire authority and is responsible for the control and suppression of all fires on NPWS estate. This responsibility extends to the implementation of fuel management programs designed to protect life and property, as well as the natural and cultural heritage of its reserves. NPWS may also assist with the control and suppression of fires adjacent to or threatening its reserves.

An important part of NPWS fire management is its participation as a member of the local bush fire management committees. These committees are responsible for the preparation of operation plans and bush fire risk management plans under section 52 of the *Rural Fires Act*.

The NPWS also prepares fire management strategies for the parks it manages. North Coast Region has prepared draft fire management strategies for the eastern section of Nymboida National Park. Northern Tablelands Region is currently preparing draft fire management strategies for the remainder of the planning area.

Desired outcomes

- Protection of human life and property within and adjacent to the planning area.
- Maintenance of species habitat and diversity to avoid local extinction of native flora and fauna species, with priority given to rare and threatened native species.
- Protection of cultural values.
- Protection of catchment values.

- Finalise and implement fire management strategies for the planning area with a focus on fire protection along park boundaries and cooperative management with neighbours and the conservation of biodiversity, wilderness, World Heritage and catchment values.
- Develop fire protection strategies for the Mulligans visitor area to ensure there
 is adequate fuel reduction and fire breaks to protect visitors to the area.
 These strategies will provide for the evacuation of visitors in the event of
 wildfire or other emergency situations.
- In order to complete the protection of Mulligans visitor area, a short section of trail will be constructed between Mulligans Drive and Little Dandahra Creek so as to complete the loop fire trail surrounding the visitor facility area.
- Avoid all rainforest communities and habitats of endangered flora and fauna species known to be fire sensitive (such as granite refugia and alpine woodlands) in prescribed burning and wildfire operations.
- Maintain records of fire occurrence, with particular emphasis on mapping and recording the area, frequency, seasonality and intensity of fire events.
- Prescribed burning and/or mechanical methods used to reduce fuel loads may be used where necessary to reduce fuel to protect assets and/or protect neighbouring properties. Prescribed burning may also be used to maintain appropriate fire regimes for vegetation communities and species diversity.
- Maintain a system of fire trails where necessary for protection and prescribed fire purposes as identified in the Fire Management Strategies (refer to sections 5.1.4 and 6).
- Promote increased community awareness about management of fire within the planning area through park information and interpretation material as appropriate (refer to section 5.2).
- Undertake research that can enhance fire management in the planning area (refer to section 5.3).

- Undertake fire management and control to ensure minimal environmental impact.
- Rehabilitate any areas disturbed by machinery following suppression of fires.
- In order to minimise weed invasion following fire, undertake post fire
 monitoring and implement appropriate weed control strategies and
 rehabilitation using plant species indigenous to the area.

3.7 INTRODUCED PLANTS

Background information

Introduced plants, commonly referred to as weeds, are species that are not native to an area. These species have a range of impacts on natural and cultural values and can reduce the economic viability of agricultural enterprises on adjoining properties.

Introduced plants are considered to be only a minor problem in much of the planning area. The low number of weeds is related to the largely undisturbed nature of the planning area. Most exotic species are associated with disturbance such as the Gwydir Highway corridor, tracks, recent logging, old stockyards and other sites of increased nutrients.

Table 1 lists weed species known to occur within or immediately adjacent to the planning area while table 2 indicates the control priority, locality and noxious weeds category for each species (based on the shire in which it occurs).

Table 1 - Priority weed species in the planning area

Reserve	Blackberry	Lantana	Giant Parra. Grass	Crofton Weed	Coolatai Grass	Whisky Grass	African Love Grass	Honey Locust	Willow (Salix spp.)	Bathurst Burr (Xanthium spp.)
Barool NP	•	•	•	•	-	•	•	0	-	0
Capoompeta NP	-	-	-	-	-	-	0	-	-	-
Gibraltar Range NP	-	•	•	•	-	•	•	-	-	-
Nymboida NP	•	•	•	•	•	•	•	•	•	•
Washpool NP	0	•	•	•	-	•	•	-	0	-

Key to table 1:

- Significant pest subject to control
- o Minor pest limited or no control
- Absent or not recorded in the reserve

Table 2 – Priority control and noxious weed categories for the planning area

Weed Species	NPWS Priority	Noxious Weeds Category (refer to appendix 5)	Shire/Municipality
Blackberry	1	W 3	S, T
Blackberry	1	W 2	P, C
Lantana (red flowered)	1	W 2	P, C, S, T
Giant Par. Grass	1	W 2	S, T
Giant Par. Grass	1	W 3	P, C
Whisky Grass	3		Not declared
Bathurst Burr Xanthium spp.	2	W 2	P, C, S, T
Willows Salix spp	2	W 4 g	P, C
Coolatai Grass	1		Not declared
Crofton Weed	2	W 2	P, C, S, T
African Love Grass	1		Not declared
Honey Locust	2	W 2	P, C

Key to table 2: Priorities – 1 = High, 2 = Medium, 3 = Low

Shire/Municipality - P - Pristine Waters

C - Copmanhurst

S - Severn

T - Tenterfield

Lantana is the most significant weed threat in the planning area (Taws 1996) and occurs at lower elevations in the planning area. It diverts and can arrest natural succession of the forest following disturbance. It physically chokes access along the bottom of river and creek valleys. It also changes the structure, fire dynamics and nutrient cycles of forests and other ecosystems. Crofton weed occurs in similar habitats to lantana, but its recorded distribution is much smaller.

Blackberry is also a significant weed, and is mainly located along the edges of the Mann River in Nymboida National Park and on former grazing properties in west Washpool National Park. Blackberries can be difficult to eradicate from an area and, once established, harbour feral animals.

Giant Parramatta grass is a serious perennial weed, with the ability to persist and invade native grasslands. This plant produces a large number of seeds that are easily spread by vehicles and machinery, and remain viable in the soil for several years.

Honey locust is a woody weed that poses a serious threat to catchment areas and riparian communities. It is currently located in Barool National Park and Nymboida National Park, where it is confined to the verges of the Mann River. A serious infestation is located at the Wytaliba community on the Mann River, and the downstream effects of this infestation pose a serious threat to vegetation communities on the Mann River.

Weeping willow is another woody weed located along river systems, and is located on the Mann River. This weed is not as aggressive as other willow species, but control is warranted to prevent further spread.

In 1983 a 20 hectare remote trial plantation of *Pinus* species was established adjacent to the Old Mill site in what is now west Washpool National Park. This

plantation, along with the Mt Mitchell pine plantation could be a source of *pinus* wildings that spread into the parks.

An assessment of plantations in the Northern Directorate is currently being undertaken to determine appropriate removal and rehabilitation programs for plantations in parks and reserves. This will include time frames and methods for rehabilitation.

Other weeds of importance in the planning area are all annuals and their distribution is closely linked to the floodlines of major waterways and areas of disturbance.

The main problem areas for weeds within the planning area are:

- along the lower reaches of Washpool, Coombadjha, Desert, Oorooroo and Willowie Creeks in Washpool National Park;
- in the Middle Creek basin of Gibraltar Range National Park;
- along the Mann River valley and on the slopes of Mt Gundahl in Nymboida National Park;
- along the margins of the Gwydir Highway; and
- in the lower valleys along the Timbarra River.

Following fire there is the potential for the invasion and establishment of weeds. There are also concerns about the potential spread of weeds in the dry escarpment creeks of west Washpool National Park, either through vehicle crossings or downstream travel of weeds from neighbouring properties.

The *Noxious Weeds Act 1993* provides for the declaration of weeds by local government. The NPWS is required to control all noxious weeds to the extent necessary to prevent their spread to adjoining lands.

Desired outcomes

- Reduced threat to natural, cultural and catchment values from introduced plants.
- Introduced plants are controlled and where practicable eradicated.
- Disturbed areas are restored.

- Prepare and implement a plan for the control of introduced plants giving priority to those species listed in table 2 that:
 - are declared noxious:
 - have a significant environmental impact, including damage to wilderness and World Heritage values;
 - may affect neighbouring lands;
 - are new isolated occurrences:
 - have the potential to be spread through internal access systems; and
 - that block access routes such as fire tracks and river valleys.
- Map the distribution of priority weed species.
- Use weed control techniques that have minimal environmental impact.

- Introduce management techniques, such as washing down plant and equipment before moving to new areas, to reduce the spread of weeds.
- Encourage neighbours to prevent introduction of weeds into new areas and to become involved in cooperative weed control programs on a broader scale basis.
- Develop a riparian rehabilitation program for lantana infested areas adjacent to the Nymboida River camping area and Ringers hut.
- Liaise with the RTA and Severn Shire Council regarding roadside management of the Gwydir Highway and other public roads within the planning area to limit weed spread into the parks (refer to sections 2.1, 3.5 and 3.9).
- Removal and rehabilitation of the pine plantation in Washpool National Park
 will be in accordance with the NPWS Northern Directorate strategy for the
 management of plantations, which is currently in preparation. A time frame for
 the removal of the pine plantation should assess the feasibility of
 commercially harvesting the pines while ensuring optimal conditions for
 regeneration of native vegetation (including seed bank viability at the site).
- Monitor the spread of pines from adjacent forestry plantations and remove any seedlings that germinate within the planning area.
- Remove the willow trees at Four Bull in Washpool National Park.
- Undertake post fire monitoring and implement appropriate weed control strategies and rehabilitation using locally indigenous species as required.
- Pursue cooperative management arrangements with community groups and government agencies for the control of aggressive weed species that are currently outside the planning area, such as cats claw creeper and honey locust, that have the potential to significantly impact on the planning area.

3.8 PEST ANIMALS

The most significant pest animal species known to occur in the planning area are listed in table 3.

Table 3 - Priority pest animal species within the planning area

Reserve	Feral pigs*	Feral goats	Foxes	Feral Cats	Wild Dogs*	Feral Cattle	European Rabbits*	Deer
Control priority	1	1	2	3	1	2	3	2
Barool NP	-	-	0	0	•	-	-	-
Capoompeta NP	•	-	•	0	•	-	0	•
Gibraltar Range NP	-	-	0	•	•	-	0	-
Nymboida NP	-	-	0	0	0	-	-	-
Washpool NP	•	•	0	0	•	0	0	0

Key:

- Significant pest subject to control
- o Minor pest limited or no control
- Not applicable
- * Declared noxious under the RLP Act

Within the planning area exist wild dog populations comprising pure dingoes (considered native - refer to section 3.4), and mixed breed feral dogs. Feral dogs are a problem because hybridisation with dingoes and possible impacts on native species.

Wild dogs, including dingoes, have been declared as pest animals under the *Rural Lands Protection Act 1998* (RLP Act) throughout NSW. Hence, the NPWS has a statutory obligation to control wild dogs on its estate. Under the RLP Act, however, public lands which are identified as significant habitat for dingoes in Schedule 2 of the Wild Dog Control Order will be managed with the dual objectives of managing wild dogs while at the same time conserving dingoes. The parks comprising the planning area are Schedule 2 areas requiring public land managers, such as the NPWS, to assist in the preparation of a local wild dog management plan in accordance with the RLP Act. These plans are to identify methods for the control of wild dogs and the conservation of dingoes and are to be approved by the local Rural Lands Protection Boards (RLPB).

Feral pigs have been increasing in distribution and density on a statewide basis and are now established in several areas in the planning area as well as on neighbouring properties. Feral pigs are also a potentially significant vector of exotic agricultural disease. Strategies need to be implemented to minimise new incursions of pigs, and to reduce the impacts and density levels of this pest.

Feral goats occur in isolated pockets in the planning area, competing with native animals such as the brush-tailed rock-wallaby for food and habitat resources. The browsing nature of feral goats can also alter the composition of vegetation towards more perennial species. In addition, goats act as a vector for exotic diseases. Feral goats have been recorded within the park mainly around the Morven Creek area in west Washpool National Park.

Feral fallow deer populations are increasing in the planning area. The control of this species is difficult due to its extremely wary nature. Deer have the potential to impact on native vegetation and have the potential to spread exotic diseases.

Foxes are absent from most of the planning area and in low numbers where they do occur. Smith *et al.* (1992) suggests that this low population level may be related to active exclusion by dingoes, low numbers of rabbits and the presence of dense forest cover. Foxes are more likely to occur on cleared land adjoining the planning area where sheep are grazed.

Feral cats occur throughout the planning area and prey upon native fauna species including small and medium sized mammals, reptiles and birds.

Rabbits have been sighted in several locations in the planning area, but their numbers are currently low.

Desired outcome

 The threat to natural ecosystems, native fauna populations, catchment values and neighbouring properties and livestock from pest animals is minimised.

- Prepare a pest species management plan for the control of pest animals.
- Monitor the occurrence and undertake control programs for wild dogs, feral pigs, goats, deer, foxes, cats and rabbits.

 Assist in the preparation and implementation of a local wild dog management plan in accordance with the RLP Act.

3.9 DISTURBED AREAS

Background information

Soils in the planning area, especially those derived from granites, are highly erodible and highly erosive torrential rainfall is common in summer. When influenced by cyclonic activity, these episodes can last several days, resulting in rapid creek level rises erosion of unsealed roads and movement of sediment. These rainfall events may also trigger mass movement and landslides usually confined to the Gwydir Highway road reserve.

Although small in total area, a range of clearings and bare earth sites occur within the planning area. These include numerous gravel dumps adjacent to the Gwydir Highway; disused quarries; old logging dumps; and the on-park road and trail system. Mapping and rationalisation of the number of gravel storage sites is required along the Gwydir Highway within the planning area.

Desired outcomes

- Park maintenance and works do not impact on the natural rates and magnitudes of soil erosion and sedimentation in the planning area.
- All redundant bare earth sites are revegetated.
- Vegetation structural diversity and habitat values are conserved and regenerated where affected by past logging and grazing.

- Assess all areas where operations are proposed for their soil erosion hazard prior to undertaking works and ensure management activities are carried out in a manner that minimises soil erosion, siltation and water pollution.
- Undertake appropriate erosion prevention and sedimentation control in association with all developments and road maintenance works.
- Liaise with the RTA and Severn Shire Council to develop a MOU for the Gwydir Highway where it traverses the planning area. The MOU should consider environmental impacts and rehabilitation requirements; hazardous substance spills and incident procedures; requirements for gravel dumps, equipment storage sites and other clearings, and aesthetic considerations.
- Identify the extent of each disturbed area along roads and trails in the
 planning area (many being former gravel pits or dumps) and determine the
 future management requirements for these sites or revegetation requirements
 for those sites no longer required. Install barriers where necessary to limit use
 of, or expansion to, disturbed sites.
- Review the former gravel pit near the Gibraltar Range workshop, retaining only a minimal area for storage of essential materials (refer to section 6).
- Undertake research to determine the most effective methods of assisted regeneration and, where possible, assist natural revegetation of modified landscapes.
- Only plants indigenous to the local area are to be used for landscaping or rehabilitation.

4. CONSERVATION AND MANAGEMENT OF CULTURAL HERITAGE

4.1 ABORIGINAL CULTURAL HERITAGE

Background information

The planning area encompasses parts of the former countries of the Bundjalung and Jukumbal tribes of the Bundjalung, the Ngarrabul and the Gumbaingirri people (RACAC 1996).

The planning area falls within four Local Aboriginal Land Councils: Glen Innes; Grafton-Ngerrie; Baryugil; and Tenterfield. The planning area lies within the Northern NSW Regional Land Council. In addition to the above there are also Elders' Groups and Aboriginal Cooperatives in these areas.

The mountainous sections within the planning area were rarely occupied for long periods at a time due to the rugged and harsh nature of the terrain. The area was primarily used for ceremonial or sacred purposes and as a route between the coast and tablelands. At particular times of the year, the area was used as a place to gather a range of resources such as rainforest fruits (Longdin 2000).

With displacement of Aboriginal people following European occupation, the rugged country of the Gibraltar Range became important as a refuge and resulted in intermingling of different tribes.

Local Aboriginal people maintain strong links with the land. NPWS acknowledges the importance of the planning area to local Aboriginal communities, and the wealth of information they retain about the area.

Evidence of past occupation include open campsites in the lower, flatter sections of the planning area such as along the Mann and Nymboida River terraces, axegrinding grooves, scarred trees, rock shelters and stone artefact sites.

To the Aboriginal people, the landscape has a spiritual quality. The Bundjalung used the area for thousands of years for ceremonial purposes. There is a mystical significance of the forests, mountains and other landscape features, such as the Sugarloaf and Waratah. Two Aboriginal places, Sugarloaf ('Gwydir') and Waratah Trig, nominated by traditional owners and a local Aboriginal Cooperative (Riebe 2000), have been declared under the NPW Act. The traditional owners and the Collum Collum Aboriginal Cooperative will be involved in the management of these Aboriginal places.

A concentration of cultural areas occurs in the northern section of Washpool National Park. The NPWS has recommended the area be declared as Goagun Aboriginal Place under the NPW Act (NPWS 1990a, 1990).

Three Native Title Claims have been registered for sections of the planning area. The claims are registered to: Malera Bandjalan (NC 97/31); Buryulgil Bundjalung (NC 96/8), and Gumbaingirri People (NC 97/34).

Desired outcomes

 Conservation and interpretation of Aboriginal heritage within the planning area.

- Involvement of local Aboriginal people in the Aboriginal cultural heritage management of the planning area.
- Development of guidelines by Aboriginal people for the management of Aboriginal places and other locations of importance to Aboriginal people.

Management strategies

- Work in collaboration with the appropriate Aboriginal Land Councils, Native Title claimants, Elders Groups and relevant interested individuals regarding Aboriginal cultural heritage issues in the planning area.
- Undertake cultural heritage surveys and where appropriate the recording of oral histories in collaboration with relevant Aboriginal communities and individuals.
- Collaborate with the appropriate Aboriginal people about interpretation of Aboriginal Cultural Heritage.
- Prepare guidelines for the cooperative management of Sugarloaf ('Gwydir') and Waratah Trig Aboriginal places in collaboration with the traditional owners (refer to section 5.1.1).
- Pursue declaration of Goagun Aboriginal Place in consultation with appropriate Aboriginal people.

4.2 HISTORIC CULTURAL HERITAGE

Background information

The extremely rugged terrain and low productivity soils limited use of the majority of the area by European settlers for farming purposes. However, past forestry, grazing, mining and the construction of the Gwydir Highway have impacted on the planning area.

Forestry commenced in the area with cedar cutting in the 19th and early 20th centuries. The first state forests in the area were created in 1917. Most accessible sections of the western part of the planning area had been logged for hardwood by the 1970s. General purpose rainforest logging occurred in the former Gibraltar Range State Forest in the 1940s, 1950s and 1970s and in the former Cangai State Forests between 1973 and 1982. Evidence of forestry activity within the planning area consists mainly of old stumps, trails, log dumps, saw mill sites and structural vegetation changes within parts of the forest. Wade's Mill at Boundary Creek was one of the major bush sawmills of the district, until its closure in 1968. A number of pieces of machinery, tools and other relics of the sawmill remain at the site. A trial pine plantation is also located in the western section of Washpool National Park (refer to section 4.7).

Grazing of cattle occurred in the forests on the more fertile and accessible areas in the Capoompeta and west Washpool National Parks, as well as in the Timbarra, Cooraldooral, Mann and Nymboida Rivers. Generations of families undertook seasonal mustering of these large, rugged bush blocks, sometimes camping in huts. Some of the huts used for mustering in west Washpool and Cooraldoral Gorge were still in use up until the time of the recent additions to the parks. The condition and historical value of the huts vary.

Mining, mainly for tin and gold, was undertaken in areas to the west of Gibraltar Range National Park, in the extreme north east of Washpool National Park (part

of the Timbarra goldfield) and along the Mann River valley in Nymboida National Park (part of the Nymboida and Chambigne Creek Goldfield). Gold leases and prospecting licences were issued up to 1986, however no intensive mining activity was carried out during the 20th century.

In the 1920's Bill Mulligan proposed a hydro-electric scheme to rework mine tailings. In the 1920s, Mulligan studied water flows on both branches of Dandahra Creek and designed a network of pipes to supply water to a power station located at the base of the escarpment. He also built a hut and stables on the travelling stock route linking Cangai and Glen Elgin, the only route over the range at that time. The Government did not give approval for the scheme and it did not prove to be economically viable.

The creation of Gibraltar Range National Park in 1963 is linked to the increased access to the area as a result of the opening of the Gwydir Highway in 1960. The highway has historical interest because it was the first road in New South Wales surveyed using aerial photographic interpretation and it marked a significant achievement in road building.

A cultural heritage assessment was completed for Washpool and Gibraltar Range National Parks (NPWS 1998). Approximately 100 historic places have been recorded in the planning area, including:

- The Old Mill (also known as Mangleson's Mill) on Spirabo Trail in west Washpool National Park. Two steam boilers, various pieces of machinery and tools, and a few exotic trees remain. The buildings were relocated to Tenterfield following the mill closure.
- Wade's Mill at Boundary Creek, which was one of the major bush sawmills of the district until its closure in 1968. A number of pieces of machinery, tools and other relics of the sawmill remain.
- Evidence of past mining, such as water races, a tunnel and boilers at Grassy and Pheasants Creek in Gibraltar Range National Park, as well as a tunnel and boilers at Cherry Tree Creek in Nymboida National Park.
- Mulligan's weirs and hut/stables in Gibraltar Range National Park. The hut/stables were largely rebuilt following fire damage in 1967 and a fireplace was added. Little of the original structure remains, although restoration works following the 1967 fire mimicked building techniques and materials used in its original construction.
- The highway workers' huts and exotic cypress pines in front of the Gibraltar Range National Park visitor centre. The RTA huts were built as temporary accommodation, initially for highway workers and then later used to house staff employed at Gibraltar Range National Park. These huts are now unused, in a state of disrepair and are not required for management purposes. The cypress pines were planted by highway workers and are a prominent entry point to Gibraltar Range National Park The pines are on the Gwydir Highway road reserve, not the park.
- Slab huts previously built and used by stockmen are located in Nymboida National Park, Cooraldooral Gorge and the western section of Washpool National Park.

Desired outcomes

- Historic heritage resources are recorded and assessed, and where appropriate protected, conserved and interpreted.
- Further investigation is undertaken into the history of the planning area.

- Liaise with the RTA to retain the cypress pines adjacent to the Gibraltar Range Park Information Centre only for as long as they remain healthy and safe. When they become senescent and/or unsafe, the pines should be replaced with indigenous species.
- Develop and implement conservation plans to protect and, where appropriate, interpret Nymboida, Cooraldooral and west Washpool huts.
- The RTA huts adjacent to the Information Centre in Gibraltar Range National Park are considered to be of local historic significance (Austral Archaeology 2003). However, due to their dilapidated condition, limited significance, public safety considerations and costs associated with their retention, it is recommended that the RTA huts be recorded and demolished. The cookhouse could be retained because it is a more stable structure, although minimum ongoing maintenance would be provided. Prior to any works being undertaken, a Statement of Heritage Impact and Conservation Plan will be prepared.
- Subject to the outcome of the above assessment, huts not considered worthy
 of conserving may be recorded and removed.
- Encourage the involvement of local historians, historical societies and interested members of the community in the identification and assessment of historic items within the planning area.
- Provide interpretive and educative material on historic items (refer to section 5.2).

5. PARK USE

5.1 RECREATION OPPORTUNITIES

Background information

The planning area's location between the New England Tablelands and NSW North Coast and its bisection by a major highway make it highly accessible for recreation. Current visitation is concentrated at five sites with visitor facilities close to the Gwydir Highway, co-named the "World Heritage Way" tourist drive (see maps 4 and 5). The camping grounds, picnic areas, walking tracks and lookouts offer outstanding opportunities for outdoor and nature-based recreation. Several developed lookouts provide opportunities for visitors to enjoy the spectacular landscape values of the planning area.

Visitor surveys, covering seasonal patterns, were undertaken during 1999 – 2000 (Griffin and Archer 2001). Surveys of the planning area indicate that most visitors to the planning area come to undertake passive recreation activities such as nature observation, scenic driving, and for short walks on the graded walking track system. Levels of visitor satisfaction were very high. Any alteration to visitor facilities should be cognisant of not changing recreational settings to the point that existing visitors become dissatisfied or displaced from the planning area. The planning area, however, is large enough to provide for a wide range of recreation settings and, in turn, diverse recreation opportunities.

Any new visitor infrastructure development undertaken in the planning area will be subject to appropriate environmental assessment and must comply with NPWS Northern Directorate infrastructure guidelines. The management of visitor facilities will be in accordance with relevant NPWS policies and guidelines (eg. Guidelines for assessment and maintenance for trees).

Desired outcomes

- A range of visitor facilities are provided that are safe, accessible and contribute to a positive visitor experience.
- Existing recreation settings are protected as far as practicable.
- A range of nature based appropriate recreation opportunities are provided in the planning area with minimal impact on the natural and cultural values.
- Visitor facilities are developed in accordance with appendix 3.

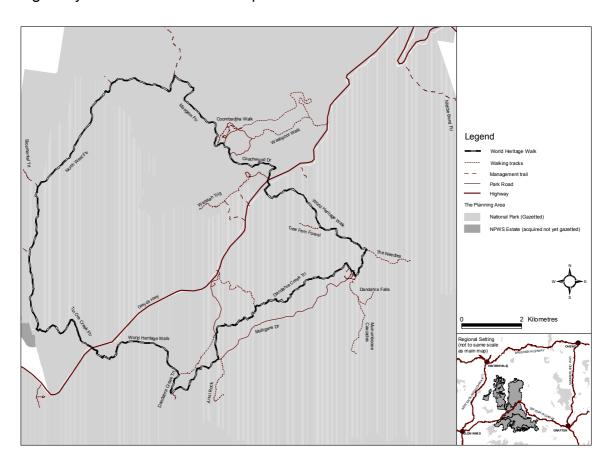
Management strategies

- Visitor facilities and infrastructure will not be developed in declared wilderness areas.
- Visitor use is regularly monitored, especially vehicle numbers using the main park roads.
- Risk assessment of visitor facilities shall be ongoing. Checks shall be made of all visitor facility sites and preventative action taken to maintain visitor safety. Frequency of the inspections will depend upon the perceived level of, and exposure to, risk. Preventative actions may include the de-limbing or removal of trees at high-risk sites, or the modification to, or exclusion of, use by visitors.

 Where new sites are to be planned for possible future visitor use or development that are not included in appendix 3, an amendment will be required to this plan before works can be undertaken.

5.1.1 Bushwalking

Due to the proximity of the planning area to regional centres such as Grafton and Glen Innes, as well as the growing population of the Gold Coast and Brisbane, demand in the planning area for short, and especially loop, formed walking tracks is expected to increase in the next 10 years. Similarly, demand for wilderness walking away from facilities is also expected to increase.



Map 3: Walking tracks in the central section of the planning area.

Bushwalking is a popular activity in the planning area. The track network includes approximately 50 kilometres of graded walking tracks in addition to management trails and the Bicentennial National Trail (see map 5).

The well publicised "Walk on the Edge of Wilderness" (to be renamed "World Heritage Walk"), which links Gibraltar Range and Washpool National Parks, follows existing walking tracks and management trails. The 8.5 kilometre Washpool Walk is a very popular half-day walk within Washpool National Park. The opportunities for wilderness walking in the planning area are of regional significance because of the diversity of landscapes and vegetation types, and their proximity to one of the fastest growing population regions in Australia. Wilderness walking in the planning area requires a high level of experience and planning.

A "Walking Track Repair and Development Plan for the Washpool and Gibraltar Range National Parks" (NPWS 2000) details essential maintenance and upgrade works required for existing tracks. A review of recreation opportunities was also undertaken and recommendations were made for modifications to existing tracks to create a wider range of walking opportunities.

There are some walking tracks in Gibraltar Range National Park that have been identified for repair, maintenance, realignment or upgrading in the above mentioned walking track study (NPWS 2000). The creation of a loop track is proposed by extending the existing Tree Fern Forest Walk in the Mulligans area to the day use area along Dandahra Creek.

There is also a proposal for some improvements, including minor track realignment, to the Dandahra Crags and Anvil Rock Tracks that are within declared wilderness. Before works can commence these proposals will need to address wilderness and public safety implications and potential environmental impacts.

Desired outcome

 A range of bushwalking opportunities is maintained that are sustainable, complement other opportunities nearby and provide a high quality experience.

Management strategies

- Promote walking opportunities in the planning area through publicity, displays and brochures.
- Maintain the walking tracks shown on map 4 (inside back cover).
- Implement the maintenance component of the "Walking Track Repair and Development Plan for the Washpool and Gibraltar Range National Parks" (NPWS 2000).
- Based on the above study, and only if in accordance with wilderness provisions, realign the Dandahra Crags and Anvil Rock Tracks in Gibraltar Range National Park.
- Provide a loop walking track by linking the existing Tree Fern Forest Walk with the Dandahra Creek walk in Gibraltar Range National Park.
- Signpost and upgrade the "hidden pool" walking track from the Mulligans terraced area along Little Dandahra Creek to the management trail.
- Investigate the feasibility of constructing a short, self-guided interpretive loop walk behind the Gibraltar Range Visitors Centre that focuses on the granite and heath environment.
- Investigate the feasibility of creating walking tracks to Mt Bajimba summit, Billyrimbra Falls, and from the proposed Old Mill camping area to Little Mt Spirabo, to class a 4 or 5 Australian Standards walking track.
- Rename the "Walk on the Edge of Wilderness" as the "World Heritage Walk" (refer to section 5.1.5).
- In consultation with relevant Aboriginal people, investigate future management options for the walking track to Waratah Trig (a declared Aboriginal Place) so as to protect Aboriginal cultural heritage values in the area (refer to section 4.1).

- Signpost and indicate on park brochures the Highland Home Management Trail as a walking opportunity in Capoompeta National Park.
- Construct an Australian Standards Class 1 (All Access Path) from the day use visitor area to Mulligans Hut.

5.1.2 Camping

Camping facilities currently exist at Mulligans, Bellbird, Coombadjha, North Washpool and Nymboida River, as well as on neighbouring State forest at Boundary Creek Falls. Camping fees are payable at Mulligans, Bellbird and Coombadjha camping areas in conjunction with park use fees. Management of existing and new facilities are aimed at providing a range of recreation opportunities (refer to section 5.1). Appendix 3 summarises the existing and proposed visitor facilities for the planning area.

Gibraltar Range National Park

The Mulligans visitor area was established in the 1960s and is the oldest recreation node in the planning area. It is located at the end of Mulligans Drive, 9 km from the Gwydir Highway (see maps 3 and 4). Recent works undertaken at the site have included terracing of the day use area, separation of camping and day use areas, and provision of a separate camping area for large groups. The Mulligans camping area currently has 19 sites and the group camping area has six sites.

The Mulligans day use and camping area is potentially at risk during extreme fire conditions because the surrounding forest has a heath understorey and the site is 9 km from the main road. The area may be closed to the public during times of high fire risk as a precaution to protect public safety.

Currently there is a low-key camping site at Grassy Creek for visitors using the long distance "Walk on the Edge of the Wilderness" (proposed "World Heritage Walk"). The site is within declared wilderness but the existing clearing will be maintained.

The Boundary Creek Falls Day Use and Camping Area (see map 4, inside back cover), formerly part of Moogem State Forest, is a recent addition (encompassing 61.77 hectares) to the NPWS estate and will be incorporated into Gibraltar Range National Park. The Falls area is important in the overall strategy of visitor use in the planning area, but its facilities are dilapidated and unacceptable in a national park. The visitor facility area, however, will remain as a low-key destination with basic facilities to reflect this low-key recreational setting, which will complement the more developed setting and facilities provided at Mulligans, Bellbird and Coombadjha Camping Areas. Visitor capacity will not be substantially increased when the facilities at Boundary Creek Falls are upgraded (refer to appendix 3).

Washpool National Park

Bellbird and Coombadjha camping areas, on the south-eastern edge of Washpool National Park, provide a rainforest setting which contrasts with the heathy dry forest at Mulligans visitor area. These camping areas often reach capacity at peak visitation times. The moist vegetation in the Washpool area tends to encroach into the cleared camping areas. Edge clearing needs to be maintained to preserve existing campsites. A system of site reservation may need to be considered for these areas in the future.

A low-key camping area is maintained in the north east corner of Washpool National Park, accessed via Baryulgil. The existing toilet at this North Washpool camping area is close to the creek and needs to be upgraded to a sealed unit.

There are currently no visitor facilities in west Washpool National Park. The clearing at Four Bull will be developed as low-key day use and/or camping area offering a semi-remote recreation setting.

At Four Bull, road conditions necessitate four wheel drive access. Restricted access under a permit system will apply to this area.

The Old Mill site lends itself to low-key camping.

Nymboida National Park

Nymboida River camping area is the only camping area in Nymboida National Park.

Barool National Park

Barool National Park has no formal recreation areas, although informal camping is known to occur in some areas of the park. The area is currently the subject of a wilderness assessment. There are no plans to develop camping facilities in Barool National Park.

Capoompeta National Park

Capoompeta National Park has no formal camping facilities, however, the Highland Home area provides remote camping opportunities. There are no proposals to provide camping facilities.

Desired outcome

 Camping areas are managed in accordance with the plan of management so as to provide a range of camping opportunities.

Management strategies

- Maintain visitor facilities, and ensure that new developments and upgrades to existing facilities and infrastructure are consistent with the visitor infrastructure detailed in appendix 3.
- Introduce recycling bins in camping areas.
- Implement a booking system at Gibraltar Range and Washpool National Parks for peak visitation periods if required.
- Record and monitor visitor use at key camping areas.
- Remote or backpack camping, where no facilities are provided, is permitted in the planning area but must not occur within 200 metres from a road or trail, or 500 metres from a visitor facility node (eg. camping or day use areas or the Park Information Centre in Gibraltar National Park).

Gibraltar Range National Park

 A booking system will be introduced for the Mulligans camping area for peak periods. Signs will be erected on the Gwydir Highway when the camping area is full (signs should also provide a telephone number for booking). Based on the outcome of this system, and if there is a demonstrated need, up to 10 additional campsites may be provided subject to an amendment of this plan.

- In order to prevent potential contamination to Dandahra Creek, the remaining unsealed pit toilets within the Mulligans area will be upgraded to appropriate closed systems.
- Develop a plan covering fire protection at Mulligans visitor area (refer to section 4).
- To prevent scavenging of firewood from the surrounding forest, firewood and/or gas barbecues will be provided at Mulligans camping area.
- Visitor facilities at the Boundary Creek Falls Camping and Day Use Area will be upgraded, but the low-key development and existing recreation setting will be preserved. The day use and camping areas will be better separated; new toilets provided; bollards used to control vehicle movement; existing walking track to the falls upgraded; provision made for caravans/campervans; and improved walking and vehicle access provided to nearby Lyrebird Falls (refer to appendix 3).
- Maintain the clearing at Grassy Creek camp area. Remove picnic facilities as they become dilapidated but do not replace them (refer to appendix 3).

Washpool National Park

- Maintain current capacity of camping areas at Bellbird, Coombadjha and North Washpool, and control rainforest encroachment as necessary.
- Improve directional signage to North Washpool camping area.
- Upgrade all pit toilets in the park (two at Bellbird and one each at Coombadjha, Coachwood, Granites, and North Washpool camping areas) to an appropriate sealed system.
- Through a permit system, allow low-key camping in west Washpool at Four Bull. A maximum of 10 vehicles (4WD only due to road conditions) and 30 people will be permitted at Four Bull at any one time. Permits will be issued for stays of up to 7 days duration.
- Provide low-key camping in west Washpool National Park at the Old Mill site.

Nymboida National Park

- Maintain the Nymboida River camping area at its current capacity as a lowkey visitor facility area.
- Monitor camping and vehicle use along the Nymboida River adjacent to the formal camping area and implement restrictions on camping and vehicle access if necessary.

Barool National Park

No camping facilities will be provided in the park.

Capoompeta National Park

No camping facilities will be provided in the park.

5.1.3 Day Use Areas

Day use visitor facilities such as picnicking, toilets and lookouts are provided at several locations within the planning area. Self-registration park use fees are applicable at Mulligans, Bellbird and Combadjha picnic areas. Management of existing and new facilities are aimed at providing a range of recreation

opportunities (refer to section 5.1). Appendix 3 summarises the existing and proposed visitor facilities for day use areas in the planning area.

Gibraltar Range National Park

The existing day-use visitor nodes in the park occur at Mulligans, the Visitor Centre at Dandahra Creek, Platypus picnic area, Vinegar Hill and Raspberry lookout. The Boundary Creek Falls Day Use and Camping Area is a recent addition to the NPWS estate and will be incorporated into Gibraltar Range National Park. It will complement day use facilities provided elsewhere in the planning area (refer to section 5.1.2 Camping, *Gibraltar Range National Park*).

During periods of high fire danger, Mulligans and Raspberry Lookout may be closed to ensure public safety (refer to section 5.1.2).

A number of walking tracks radiate out from Mulligans (refer to section 5.1.1).

Washpool National Park

There are currently two recognised day use areas in Washpool National Park at Granites and Coachwood. Day use facilities are also provided at the Bellbird and Coombadjha visitor areas. The use of the former Hakea picnic area has been discouraged through removal of facilities because of poor visibility on the Gwydir Highway when accessing or leaving the area.

There are currently no visitor facilities provided in the west Washpool National Park, however, appendix 3 identifies new proposals to be developed under this plan.

The Billyrimbra lookout along Billyrimbra Management Trail consists of a cleared area for viewing and car parking. It is accessible by 4WD only and is currently a Crown Lease purchased by NPWS with State Forest declared over it. The clearing at this site needs to be maintained to ensure visibility as a lookout.

Nymboida National Park

There is limited potential for visitor facility development in Nymboida National Park because most of it is within the declared Bindery-Mann Wilderness. Additions to this wilderness area over Nymboida National Park are currently under assessment. The only day use facilities are provided in conjunction with the Nymboida camping area.

Barool National Park

Barool National Park has no visitor facilities. Key visitor focal points include Peregrine Point and Four Mile Trig. These proposed visitor facility areas are outside the declared Binderay-Mann wilderness area (see map 2).

Capoompeta National Park

Capoompeta National Park has no visitor facilities, however there is an opportunity to provide a low-key day use facility along the Deepwater Forest Way.

Desired outcome

 Day use areas are developed and managed to provide sustainable day use opportunities.

Management strategies

- Development of new facilities, capacity and upgrading of day use visitor facilities and infrastructure will be as detailed in appendix 3.
- Garbage receptacles will not be provided in day use areas. Information will be provided advising visitors to remove their garbage when leaving the park.
- Camping will not be permitted in day use areas.

Gibraltar Range National Park

- To prevent scavenging of firewood from the surrounding forest, firewood and/or gas barbecues will be provided at day use areas.
- Visitor facilities at the Boundary Creek Falls Camping and Day Use Area will be upgraded, but the low-key development and existing recreation setting will be preserved (refer to section 5.1.2, Gibraltar Range NP and appendix 3).
- Replace pit toilets where there is a potential threat to ground or surface water supplies with an appropriate closed system.
- Upgrade existing interpretation displays and installation of new display at Mulligans hut.
- Liaise with SFNSW regarding public access to Vinegar Hill via Vinegar Hill Road.

Washpool National Park

- Maintain Billyrimbra lookout as a low-key site with minimal facilities. Trim trees as necessary to maintain view from the lookout and maintain 4WD access.
- Replace pit toilets where there is a potential threat to ground or surface water supplies with an appropriate non-polluting system (such as a closed system).

Nymboida National Park

• Maintain day use facilities in conjunction with the existing Nymboida River camp area.

Barool National Park

- Maintain vehicular access to Peregrine Point, Chimbley Creek and Four Mile
 Trig lookouts from the Gwydir Highway. If the area incorporating these
 lookouts and the roads leading to them are declared as wilderness no
 additional visitor facilities will be provided and public vehicular access to the
 lookouts will be closed.
- Provide day use facilities at Peregrine Point and Four Mile Trig. Facilities should be kept low-key so as to complement more highly developed sites elsewhere in the planning area.

Capoompeta National Park

 Develop a low-key day use area at the intersection of Coxs Road and Magistrate Trail.

5.1.4 Vehicle Access

Background information

A network of access roads and trails is necessary for management and for public access to visitor facilities and sites of interest (see maps 4 and 5). There is a demand in the region for vehicle touring opportunities in a natural setting.

The planning area is traversed by a 30 kilometre section of the Gwydir Highway, which runs through Gibraltar Range National Park providing good views of the World Heritage listed rainforest and access to a number of excellent lookout points. Spirabo Forest Way (4WD access is recommended due to seasonally wet road conditions) in west Washpool National Park is maintained by SFNSW, NPWS and Tenterfield Shire Council.

Maintaining roads requires a major commitment of resources. A network of former forestry roads and trails exists on some of the recent additions to the planning area. Some of these are in excess of management requirements for nature conservation purposes. In determining the roads that will remain open to the public, consideration has been given to a range of factors including: physical constraints (such as the road alignment, slope, drainage; and the erodibility of the soils); wilderness boundaries; financial considerations and proposed access to visitor facilities.

Some park management vehicle access is through adjoining freehold and leasehold land. It may be necessary for the NPWS to enter into an agreement with appropriate landholders and contribute to the cost of maintaining this access.

Public roads

The Gwydir Highway provides access to the main visitor nodes of Gibraltar Range and Washpool National Parks, and traverses these parks for a distance of 30km. The highway's 40 metre wide corridor is excluded from the planning area.

There are a large number of animals killed on the road each year by vehicles.

NPWS is working with the Glen Innes and Severn Shire Tourist Associations regarding the badging of this section of highway as "The World Heritage Way" (refer to section 5.2).

State forest roads

State forest roads provide access to the boundary of the planning area in several places. These include: the northern boundary of Barool National Park; the Boundary Creek area; the western boundary of Gibraltar Range National Park; the eastern and southern sections of Nymboida National Park; the north east of Washpool National Park; parts of west Washpool National Park, and Capoompeta National Park. Maintenance of these roads and trails is necessary to ensure continued access to these parks by NPWS and visitors. An MOU should be prepared with NSW State Forests to manage appropriate maintenance of these joint access roads.

Ministerial roads

Recent additions to the planning area excluded several access roads from formal reservation as national park to ensure harvesting access to adjacent State forest and access to private land in-holdings. Special provisions were made so that

these roads were vested in the Minister for the Environment. All of these roads, with the exception of Morven Trail and Cooraldooral Trail are available for public access. These latter trails are no longer required for in-holding access because the properties have been incorporated into the park

The ministerial roads include:

- Farnell Road, Billyrimba Fire Trail and part of Morven Trail in west Washpool National Park;
- Cooraldooral Trail and Narlala Rd in Nymboida National Park.
- Part of Spirabo Forest Way and Coxs Road in west Washpool and Capoompeta National Parks,
- Narlala Rd, part of Bark Hut Rd, Lightfoots Fire Trail and Chimbley Lookout Fire Trail in Barool National Park.

Park roads

Park roads are roads that form part of a national park and are maintained by NPWS for public use, primarily to access visitor facilities and points of interest. Park roads currently include Mulligans Drive, Coachwood Drive, a section of Moogem Road and Raspberry Road, as well as short access roads and car parks in the vicinity of picnic and camping areas.

Management trails

A limited network of management trails provides access for fire-fighting and other management activities. Use of management trails is restricted to authorised management purposes only and while not open for public vehicular access they may be used by walkers and cyclists unless otherwise indicated.

Desired outcomes

- The designated park road network is generally maintained to all weather 2WD standard unless otherwise specified.
- Access is provided to private property in-holdings and State Forest lands.
- Any adverse environmental impact from the use or maintenance of roads is minimised.

Management strategies

Public roads

- Liaise with RTA regarding exit points and directional signage from the Gwydir Highway in order to provide effective and safe access to the parks.
- Liaise with RTA, local government and relevant tourism bodies about "badging" the Gwydir Highway as "The World Heritage Way".
- Promote scenic driving opportunities on the Deepwater Forest Drive, Spirabo
 Forest Way and proposed World Heritage Way, in accordance with the overall
 management of vehicle access outlined in this plan and in liaison with relevant
 tourist bodies and government agencies.

State forest roads

 Negotiate an appropriate form of agreement with SFNSW in regard to the maintenance of roads jointly managed by both NPWS and SFNSW.

Ministerial roads

- Keep ministerial roads accessible for relevant landholders and/or State forest logging areas. Negotiate with SFNSW an MOU regarding maintenance of ministerial roads used for timber harvesting.
- Ministerial roads, other than Morven Trail and Cooraldooral Trail, will be available for public use subject to the outcomes of wilderness declaration and land tenure changes.
- Review the need for Ministerial roads resulting from any changes to adjoining land tenures.

Park roads

- Maintain all park roads to major facility areas as dry weather 2WD standard.
 Other park roads will only be maintained to 4WD standard (see map 5).
- Temporarily close park roads to the public during potentially dangerous situations such as fire or prolonged wet periods and notify relevant tourist information centres of road closures.
- Investigate the provision of concrete aprons at stream crossings to minimise erosion and sedimentation.
- Undertake a risk assessment of the major park roads in the planning area and, where deemed necessary, improve road alignment and install traffic calming devices and safety guard railing that is sympathetic to the aesthetics of the planning area.
- Set speed limits on both sealed and unsealed park roads throughout the planning area to a maximum of 40 km/hr.
- Install and monitor vehicle counters on all major access points to monitor levels of use.

Management trails

- Prohibit public vehicle access to all management trails.
- Maintain management trails shown on map 5. Management trails will be further assessed as part of the proposed fire management strategies for the planning area. Redundant management trails will be closed and rehabilitated.
- Liaise with neighbours, local bush fire brigades, Councils and the Rural Fire Service regarding road maintenance and access requirements for fire fighting and hazard reduction works.

Road closures

 Maintain the roads and management trails shown on map 5. All other roads and trails will be closed and where necessary rehabilitated.

5.1.5 Cycling

Cycling, particularly mountain bike riding, is an increasingly popular activity in national parks. In the planning area this activity occurs primarily on the management trails of east Washpool and Gibraltar Range National Parks and the Bicentennial National Trail (BNT). The network of park, public and Ministerial roads also provides good opportunities for cyclists.

Desired outcome

Opportunities for recreational cycling are safe and sustainable.

Management strategies

- Cycling shall be permitted on roads, the BNT, the proposed "World Heritage Walk" (refer to section 5.1.1) and management trails where not prohibited by signage (refer below).
- Cycling will not be permitted on walking tracks, off road or on management trails where the prohibition is signposted.
- Roads and trails may be closed to cycling where there is unacceptable environmental impact or risk to cyclists and other users.

5.1.6 Fishing

Fishing mainly occurs on the Mann and Nymboida Rivers. For most of the planning area, except in the vicinity of the Nymboida River camping area, these rivers are declared as part of the planning area and constitute important habitat for the eastern fresh water cod (refer to section 4.4). Due to illegal capture, there are concerns for the protection of the eastern fresh water cod. Australian bass is the main fish species sought in the planning area.

Desired outcome

• Fishing is undertaken in a way that is sustainable and does not impact on threatened native species.

Management strategies

- Fishing will not be promoted in the planning area.
- Promote awareness of fines for capturing eastern freshwater cod through signage at the Nymboida River camping and day use area.
- Support NSW Fisheries to establish an eastern freshwater cod sanctuary in the waters of the planning area.
- Liaise with NSW Fisheries to promote and enforce regulations aimed at protecting the eastern freshwater cod, such as seasonal fishing closures, in Nymboida National Park (refer to section 3.4).

5.1.7 Horse riding

Recreational horse riding in the planning area currently occurs at low levels. Under NPWS policy horse riding is accepted as an appropriate use of national parks in some designated areas but is prohibited in declared wilderness areas.

The Bicentennial National Trail (BNT), which was established in 1988, is a continuous trail between Cooktown in Queensland and Healesville in Victoria. It is a multi purpose trail for horse riders, walkers and cyclists. The BNT passes through the north-west section of Gibraltar Range National Park for 5.5 kilometres, via the North-west Management Trail, and is the main horse riding route in the planning area (see map 5). The BNT traverses the declared Washpool Wilderness, but because it is an existing interest, horse riders can continue to use the North-west Management Trail.

Spirabo Forest Way and Spirabo Management Trail in west Washpool National Park also provide excellent opportunities for horse riders while minimising potential conflict with other park users.

The environmental, public safety and social considerations need to be monitored. If deemed necessary through the monitoring program, the number of riders on any of the trails may need to be controlled, or the trails closed (permanently or temporarily) or realigned.

Desired outcomes

- Horse riding opportunities are provided on designated trails.
- Horse riding activities have minimal adverse impact on park, wilderness and World Heritage values.
- Horse riding is undertaken safely and there is minimal conflict between horse riders and other park users.

Management strategies

- In the planning area, horse riding will be permitted on the BNT, Spirabo Forest Way and Spirabo Management Trail.
- Overnight camping with horses will not be permitted in the planning area.
- Horse riding use and impacts will be monitored. Roads and trails may be closed to horse riding, or numbers controlled, where there are unacceptable environmental impacts, risks to riders or other park visitors.
- The use of horse-drawn vehicles will only be permitted in the planning area along Spirabo Forest Way and Spirabo Management Trail.
- In order to maintain conservation values and visitor experience, a maximum group size of 20 horses (including packhorses) will be allowed on the BNT at any one time.
- Private horse riding will take precedence over commercial horse riding if there
 is competition for available capacity.
- Recreational horse-riders must comply with the NPWS Horse-riding Code.
- The NPWS will work with the BNT Coordinator and other nearby land holders and land managers to locate a suitable overnight camping area for BNT horse riders outside the planning area in the general vicinity of Boundary Creek Falls.

5.1.8 Commercial tours and activities

Under the NPW Act commercial activities require a licence to operate in national parks. Operations using the Gwydir Highway only are not within the park and therefore do not need a NPWS licence.

There is currently a small number of licensed tour operators who bring visitors to Raspberry Lookout and other visitor facility areas adjoining the Gwydir Highway, and to the World Heritage Walk. There is very little other commercial use of the area.

Commercial tours can provide access for people who would not otherwise be able to visit the parks and can increase environmental understanding and support for conservation. Commercial operations typically occur with large groups at popular destinations which, if not well managed, has the potential to impact on

park values and conflict with other visitors due to competition for facilities and overcrowding at sites.

Desired outcomes

 Commercial tourism activities are conducted in accordance with NPWS licensing and in a manner that is sustainable, safe and compatible with other visitor use.

Management strategies

- Ensure all commercial activities are licensed to operate in the planning area and activities are monitored where necessary.
- Consider a system of timing and/or limits on group sizes if commercial activities overcrowd sites in the planning area or impact on park values.

5.1.9 Adventure activities

White water rafting, canoeing and kayaking occurs along the Mann and Nymboida Rivers. Most access to these rivers is achieved from outside the planning area because access within the planning area is difficult. Only a minor level of activity currently occurs and usage can be affected by stream flows.

The dramatic landscape of large granite tors and steep gorges and escarpments provide an environment for other adventure activities such as rock climbing, abseiling and canyoning. These activities require permission under NPWS policy and have the potential to impact on natural heritage values. Only a minor level of activity currently occurs.

Desired outcomes

 Adventure activities are conducted where appropriate in a safe and sustainable manner.

Management strategies

- Adventure activities, such as rock climbing, abseiling and canyoning, will be permitted only where such activities can be safely and sustainably undertaken and do not conflict with park values or other park users.
- Where a potential threat to the values of the planning area are likely, adventure activities will be monitored to ensure the natural or cultural values of the planning area are not threatened. Where impacts are considered to be a potential threat to these values, the subject site may be closed permanently or temporarily to allow for site rehabilitation, or the activity may be relocated elsewhere.

5.2 PROMOTION, INTERPRETATION AND EDUCATION

Background information

Promotion and presentation of natural and cultural heritage is a core function of NPWS. NPWS is committed to encourage and support community stewardship of natural and cultural heritage across the landscape and to share an appreciation and enjoyment of this heritage.

Providing information, interpretive opportunities and appropriate promotion are important facets in the use and management of the planning area. Information

activities aim to foster a greater understanding of the natural and cultural values of parks and guide visitor use to reduce impacts on park values.

The World Heritage status of Gibraltar Range and Washpool National Parks also offer opportunities for promoting an increased awareness and understanding of the importance of the conservation of east Australian rainforests. Under the World Heritage Convention there is an obligation to promote the values of the World Heritage Areas. Support for the World Heritage Way route is an added opportunity to showcase and promote World Heritage values.

In addition to World Heritage values, the Gibraltar Range Group of Parks has many other natural and cultural features of interest to visitors. Spectacular granite formations and dramatic changes in landscape and vegetation can be observed along several walking tracks, allowing visitors to explore the diversity of the parks and gain an understanding of the area's ecosystems and underlying geological, climatic and soil-type influences.

Park information is provided in a variety of ways as set out below.

Promotion and pre-visit information

Pre-visit information in the form of brochures and off-park displays is available at NPWS offices and tourist information centres. The NPWS web site also contains information on parks in the planning area.

Other organisations also promote the area, including Tourism NSW, local government and regional tourism organisations, private publishers and tour operators. Directional signs on the New England and Gwydir Highways alert travellers to the existence of these parks and help them navigate to points of interest.

Promotion of visitor use must be balanced against the need to protect the park's natural, cultural and recreation values. It is intended that promotion will be directed toward the existing highly used day use and camping areas, including Mulligans, the Gibraltar Range Park Information Centre, Raspberry Lookout, Bellbird and Coombadjha camping areas and Coachwood and Granites day use areas.

Orientation information

Information boards, signs and brochures provide details of visitor facilities including picnic areas, camp sites, walking tracks, roads and tracks. Advisory signs within each park show the conditions and regulations that are important to promote safe and sustainable use. Park information boards at picnic and camping areas also help visitors to orientate themselves. Walking track signs should explain track distance, walk standard and/or the time to complete the walk. NPWS park brochures are also available from the NPWS visitor centre at Gibraltar Range National Park.

Park interpretation

Self-guide interpretive signs are placed on selected walking tracks to identify and explain significant park features. Commercial tour operators, Discovery rangers and NPWS staff offer personal interpretive services in the planning area.

Education

The planning area is an important resource for environmental study and education. Primary and secondary schools from Glen Innes, Grafton and Inverell regularly use Washpool and Gibraltar Range national parks. The University of New England and Southern Cross University include studies of the parks in their biological sciences and management courses. Field naturalists and Australian Plants Society groups from as far away as Brisbane and Sydney also use the planning area for study purposes.

Community information

Community support and good relationships with park neighbours are important components of the management of NSW national parks. Communication with neighbours can also help to improve management techniques and ensure that consideration is always given to the impact of park activities on neighbours. Major issues of concern to the local community include management of fire, introduced pest species and wild dogs.

Desired outcomes

- Visitors are aware of, understand and support the parks, natural and cultural values, including World Heritage and wilderness values.
- Visitors are aware of the parks recreational opportunities.

Management strategies

Interpretation

- Key interpretation themes for the planning area will include World Heritage values, rainforest communities, local endemic species, wilderness, catchment protection, cultural heritage and significant geological features.
- Promote increased community awareness of fire management within the planning area through park information and interpretation material.
- Provide park orientation and interpretation material at Mulligans, Gibraltar Range visitor centre, Raspberry Lookout, Bellbird/Coachwood and Nymboida River visitor facility areas.
- Provide park orientation and interpretation displays in Capoompeta National Park at the intersection of Coxs Road and Magistrate Trail, and in west Washpool National Park at the intersection of Spirabo Forest Way and Billyrimbra Trail.

Liaison with other stakeholders

- Enhance community (especially neighbours) understanding of the parks' management and values through improved community liaison, information and participation.
- In collaboration with the Aboriginal community, prepare interpretive material for Aboriginal cultural heritage sites that are appropriate to interpret (refer to section 4.1).
- Liaise with Tourism Associations, local government and RTA regarding promotion of the "World Heritage Way" concept. Promote 'Mulligans picnic and camping area' as the destination name rather than 'Mulligans Hut' which undersells the destination and is historically misleading.

- Promote 4WD touring opportunities along Spirabo Forest Way through west Washpool and Capoompeta National Parks in conjunction with Deepwater Progress Association and SFNSW.
- Encourage cooperative visitor information strategies with SFNSW, local councils and tourism organisations.

Signage and information displays

- Provide and maintain accurate walking track information at camping and picnic areas and at track heads.
- Finalise the current upgrade of the information displays at the following visitor areas: Mulligans day use and camping area, Raspberry Lookout, Bellbird and Coombadjha camping areas and Coachwood and Granites day use areas.
- Install an information display at Nymboida River camping area.
- Liaise with the owners of the Mann River Camping Ground at Jackadgery regarding provision of information on the planning area.
- Upgrade the displays at the Gibraltar Range Park Information Centre on the Gwydir Highway to help visitors orientate themselves with the planning area.
- Promote visitor feedback through visitor books and visitor surveys.

Publications

Maintain an up-to-date park brochure for the planning area.

Education programs

- Where appropriate provide assistance with education programs for schools and universities, with an emphasis on nature conservation and national park management. Focus on the support needs of teachers and lecturers.
- Where appropriate, provide assistance to commercial tour operators and tourism representatives through NPWS familiarisation visits and/or workshops.

5.3 RESEARCH

Background information

Research in the planning area has largely focused on plant communities with limited research on landforms and biodiversity. The Willowie Scrub in Washpool National Park is important for research as a scientific reference site for the study of regeneration processes within warm temperate rainforest.

The subalpine vegetation communities in the planning area are also important, not only for insights on past climatic conditions of the region, but also for comparative studies with the southern highlands, from which it has been isolated for millennia.

There are large gaps in knowledge especially regarding ecological needs of threatened species and communities. It is likely that new species will be discovered because of the high level of endemism in the area. Encouragement of scientific research into identification, conservation and rehabilitation of the CERRA (including the planning area), as well as best management practice and abatement of threatening processes are obligations of the World Heritage Convention.

The accessibility and proximity of the planning area to the University of New England and Southern Cross University heighten the educational values and opportunities of the planning area. Gibraltar Range National Park in particular has provided field study sites for students from various institutions.

Research can improve the understanding of the park's resources, threats to values and management requirements. Many research and monitoring activities are outlined throughout this plan under the subject heading to which the research or monitoring applies. This section does not duplicate activities mentioned elsewhere in this plan.

Desired outcomes

- Increased knowledge of World Heritage values, biodiversity and cultural resources of the planning area.
- Improved management by incorporating the results of research into management decision making.

Management strategies

- Prepare a prospectus of priority research projects in the planning area, which will include:
 - flora and fauna surveys and monitoring;
 - habitat requirements, abundance and distribution of rare and threatened flora and fauna;
 - ecological significance of fire, especially for threatened flora;
 - management of introduced species;
 - best practice pest species management;
 - visitor use, expectations and satisfaction; and
 - visitor use impact.
- Liaise with local universities to encourage research on priority projects within the planning area.
- Incorporate the outcomes of research into NPWS databases and into park management practices where there is an opportunity to improve management.

5.4 OTHER LAND USES

5.4.1 Bee keeping

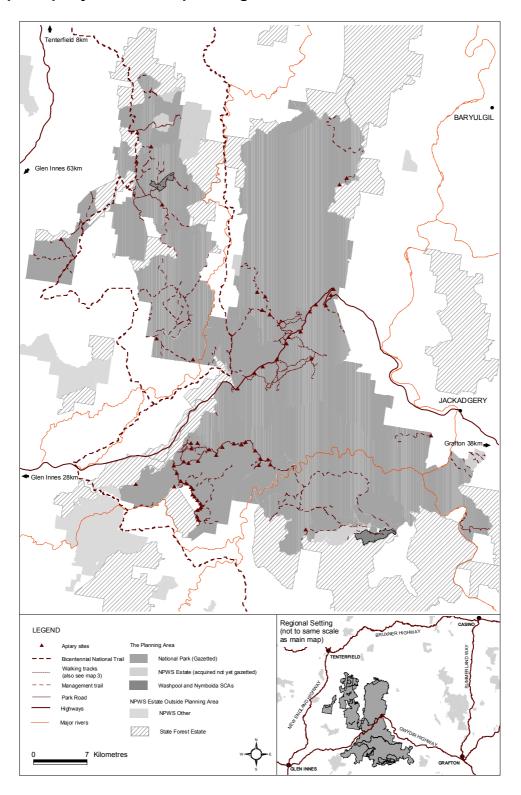
Background information

A total of 56 apiary sites currently occur within the planning area (see map 5). Twelve sites are located in Washpool National Park, including four in the declared Washpool Wilderness. There are 16 sites in Gibraltar Range National Park, one of which is in the declared Bindery-Mann Wilderness area, and one in Nymboida National Park. Twenty-seven apiary sites occur within Barool National Park.

The European honey bee is an exotic species that may have adverse impacts upon native plants and animals.

Apiary sites are authorised under a licence from the NPWS. The NPWS policy on apiary sites allows existing sites to continue but does not allow any new or additional sites. Under the policy any existing sites that seriously compromise the environmental or recreational values of an area will be relocated.

Map 5: Apiary sites in the planning area



Desired outcomes

- To balance the NPWS conservation responsibilities and the needs of the apiary industry within the planning area.
- To provide a mechanism for the relocation of apiary sites within declared wilderness and other areas where apiary activities may result in unacceptable environmental impacts or user conflicts with other park management users.

Management strategies

- Wherever possible, maintain access tracks and sites by slashing to minimise disturbance.
- Wherever possible, relocate existing apiary sites that occur within declared wilderness.
- Encourage research into the impacts of beekeeping on native flora and fauna in the planning area.

5.4.2 Grazing

Background information

Parts of the planning area have had a history of forest grazing for over 100 years. Grazing of domestic stock is not an appropriate activity in national parks. Forest grazing was withdrawn from Gibraltar Range National Park in 1963 and has been progressively phased out following dedications of Washpool, Barool, Nymboida and Capoompeta National Parks.

NPWS encourages construction and maintenance of boundary fences with neighbours. The responsibilities and obligations of neighbours for boundary fencing are largely defined by legislation. Under the *Dividing Fences Act 1991*, the Crown is not bound, and therefore, NPWS has no legal responsibility to contribute to boundary fencing. However, NPWS recognises that boundary fencing can enhance conservation values and resolve management problems within the planning area. Accordingly, despite the Crown's limited legal responsibility, NPWS contributes to priority boundary fences as funds permit.

Desired outcome

Livestock are excluded from the planning area.

Management strategies

- Exclude livestock from planning area.
- Negotiate construction and/or maintenance of boundary fences with park neighbours in accordance with NPWS policy on fencing.
- Fences no longer required for management purposes, especially internal fencing of former pastoral holdings, may be removed. Fence posts may remain where they are of historic interest or present no hazard to park users and wildlife.

5.4.3 Non-NPWS Infrastructure

Background information

Electricity lines

Electricity lines traverse the western section of Capoompeta National Park. The lines run to a transmission tower in state forest adjacent to the park boundary. Access to the line is through the park from Coxs Road. Country Energy, the local electricity distributor, regularly clears vegetation beneath the line.

Telephone optical fibre cable

A buried Telstra optical fibre cable runs east west across Capoompeta National Park. The line services freehold dwellings adjacent to the park. The cable crosses Coxs Road and then runs parallel to Gurrs Road that exits the western boundary of the park. Optical fibre cable markers are located at various intervals along the line.

Transmitters

A transmission tower is located in Nymboida National Park near Cangai East Trig, surrounded by, but excluded from the declared Bindery Mann Wilderness. The tower is privately owned and supports numerous repeaters for commercial and public organisations (including NPWS, SFNSW, Rural Fire Service and State Emergency Service). The access to the site (via Cangai and Mares Run Roads) is also excluded from the Bindery Wilderness. Minimal traffic is generated by maintenance of the tower and its equipment.

A telephone transmitter tower is located within Gibraltar Range National Park directly behind the Visitor Centre and radio links with tower on the Summit Mountain. This provides telephone service to the immediate vicinity (including a public phone). A NPWS radio transmission and fire tower is located on Summit Mountain.

Trig stations

A number of trig stations, managed by the Land and Property Information New South Wales (LPI), are located within the planning area. These are:

- Gibraltar Range National Park Waratah Trig, Summit Mountain Trig, Coonama Trig and Boundary Trig.
- Nymboida National Park Cangai East Trig, Gundahl Trig, Cunglebung Trig, Barool Trig and Lemon Tree Trig, as well as the access track to Mann Trig just outside the eastern boundary of the park.
- Barool National Park Four Mile Trig, located along an access track off Old Bark Hut Road.
- Washpool National Park Haydens Trig, Albert Trig, Malara Trig, Morven Trig, Farnell Trig, Big Spiribo Trig and Bajimba Trig.

Desired outcomes

- Only essential infrastructure will be permitted within the planning area. Where
 necessary, negotiations will be entered into to obtain proper commercial
 returns from the infrastructure within the planning area.
- Infrastructure will be managed to minimise impacts on the parks' values.

 New leases or licences are only issued for purposes consistent with the NPW Act.

Management strategies

- Infrastructure that is an "existing interests" under the NPW Act will be licensed subject to relevant conditions and, where appropriate, payment of commercial fees will be required. Compliance with licence conditions, such as vegetation clearing beneath electricity lines, will be monitored to ensure works are undertaken in an environmentally responsible manner.
- New leases or licences will only be issued for purposes consistent with the NPW Act. Greater utilisation of existing infrastructure may be authorised subject to a satisfactory assessment by NPWS and payment of appropriate lease or licence fees.
- Liaise with LPI to determine the ongoing requirements for trig stations in the
 planning area so as to minimise the environmental impact caused by
 surveyor's vehicles accessing trig stations, especially in remote and declared
 wilderness areas. Any tracks to trig stations that are not required will be
 closed and allowed to revegetate.

6. MANAGEMENT ORGANISATION AND OPERATIONS

Background information

The planning area will be managed and promoted in an integrated manner due to its largely contiguous nature and similarity of management issues. Nymboida National Park is jointly managed by Northern Tablelands and North Coast Regions. The arrangement reflects operational efficiencies in servicing public access points.

Managers, rangers, sites officers, specialists and field staff undertake organisational operations within the planning area. In order to effectively deploy their duties NPWS staff and contractors utilise a variety of resources to complete tasks. Major resources include:

- Glen Innes East and Clarence South Area offices and workshops;
- works shed at Gibraltar Range National Park;
- a system of ground and aerial access including the public road system and a network of management trails (refer to section 5.1.4);
- temporary accommodation for staff working in the area is available at the rear of the Visitors Centre at Gibraltar Range NP and Four Bull hut in west Washpool National Park;
- fire management infrastructure such as dams and helicopter pad in Gibraltar Range NP, fire observation tower on Summit Mountain, and boundary management trails;
- storage facility at the old quarry site in Gibraltar Range National Park;
- water storage, and pump systems and waste disposal sites;
- boundary fencing; and
- NPWS communication towers.

Desired outcomes

- Integrated management of the parks that form the planning area.
- Management, staffing and facilities adequately serve the needs of park management with acceptable environmental impact.

Management strategies

- Integrate management and promotion of the planning area as a single unit.
- Maintain management trails shown on map 5. All other trails will be closed and where necessary rehabilitated (refer to section 5.1.4).
- NPWS Glen Innes and Grafton based managers of Nymboida National Park will maintain close liaison to ensure consistent management of the park.
- Maintain and where necessary, carry out improvements to the Gibraltar Range Visitor Centre and Washpool Four Bull hut to provide accommodation for staff and researchers.
- Maintain the workshop at Gibraltar Range Visitor Centre and storage areas at the former gravel pit.

7. PLAN IMPLEMENTATION

Background information

This plan of management is part of the system of management developed by the NPWS. The system includes the NPW Act, NPWS's Corporate Plan, associated strategies and management policies. It also includes directorate and regional operational planning.

The implementation of the plan will be undertaken within the annual programs of the Glen Innes East and Clarence South Areas. Priorities will be determined during the development of these programs and will be subject to regional priorities, the availability of funding and staff and to any specific requirements of the Director-General or the Minister.

Regional programs are subject to ongoing review within which works and any other activities carried out in the planning area will be evaluated in relation to objectives laid down in this plan.

The environmental impact of all development proposals will be assessed in accordance with established environmental assessment procedures.

In accordance with Section 81 of the NPW Act, this plan shall be carried out and given effect to and no operations shall be undertaken in relation to the planning area unless those operations are in accordance with the plan of management. If after adequate investigation operations not included in the plan are found to be justified, the plan may be amended in accordance with Section 75 of the Act.

7.1 MONITORING AND REVIEW

Monitoring and review are important parts of planning and management of the parks. The aim of monitoring is to evaluate the success of the plan by showing what is, and what is not, being accomplished towards meeting stated management outcomes. As a direct consequence, monitoring provides opportunities to improve overall management performance.

Monitoring includes both:

- 1. Evaluating the extent to which each action in the plan is implemented and how effectively this is done; and
- Measuring changes of key indicators and attributes over time to help assess whether management actions are achieving management objectives and the desired outcomes.

Desired outcomes

- An effective monitoring program is established to determine threats to park values, risks to visitors, and visitor use patterns and satisfaction.
- The monitoring program delivers information that improves park management.

Management strategies

- Undertake an annual review of plan implementation so that management actions can be incorporated into regional operational plans and works programs.
- Develop a monitoring program to measure the status of key indicators and attributes of the parks' values, including World Heritage values. Results of the monitoring program will be used to improve future management.
- Undertake a full review of the plan after seven years as required under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999.

7.2 PRIORITIES

To assist systematic implementation of the plan, priorities for implementing activities, based on the objectives set out in this plan, are presented below. Priorities however are subject to ongoing review and will be evaluated in relation to changing Regional priorities as well as any specific requirements of the Minister for the Environment or the NPWS Director-General.

Priorities are defined as follows:

High	Actions that are necessary to achieving the plan's objectives and require implementation in the near future to meet legal obligations or to prevent:
	 Irreversible or worsening degradation of the natural and cultural values or physical resources of the planning area; Significant additional cost associated with rehabilitation at a later date; and/ or
	Unacceptable risk to the public.
Medium	Actions that are necessary to achieve the management objectives set out in the plan but will be undertaken as resources become available as the time frame for their implementation is not critical.
Low	Actions which are desirable to achieving the management objectives set out in the plan but can wait until resources are made available.

Only actions in the management strategies in each section of this plan are included in table 5. Policies and guidelines are not listed or prioritised. The actions in table 5 are summaries of those outlined in the body of the plan. Please refer to the text in the previous section for details of all actions.

Table 4 - Plan Implementation

Table 4 – Plan Implementation			
Plan reference	Key actions (summary)	Priority	
3.1 World Heritage	 Assess potential additions to the World Heritage CERRA. 	Low	
	 Research World Heritage values and maintain data bases. 	Medium	
	 Develop a program to assess the condition of World Heritage values. 	Medium	
	 Train NPWS staff to improve understanding of World Heritage values and threatening processes. 	High	
	 Promote the rehabilitation of World Heritage values. 	Medium	
	 Promote and provide information and education on CERRA 	Medium	
3.2 Landscape and geology	 Identify any significant areas of disturbance and implement measures to stabilise disturbance. 	Medium	
3.3 Native vegetation	 Identify and map sensitive vegetation communities and rare or threatened plants. 	High	
	 Develop a program to monitor community for species composition and abundance and response to fire. 	High	
3.4 Native animals	 Maintain current monitoring programs and encourage research into significant fauna, or those likely to suffer population decline and/or potential threats. 	High	
	 Maintain appropriate signage to discourage visitors from feeding currawongs. 	Medium	
	 Liaise with NSW Fisheries and local fishing clubs about installing interpretive signs along the Nymboida and Mann Rivers about the eastern freshwater cod. 	High	
	 Identify core conservation areas for dingos whilst managing potential impacts from wild dogs on neighbouring agricultural lands. 	High	
3.5 Catchment protection	 Seek the development of a MOU with the RTA and Severn Shire Council for maintenance and incident management of the Gwydir Highway. 	Medium	
	 Maintaining water quality in the Nymboida River by managing the impact of visitors at the Nymboida River camping and day use area. 	High	
	 Improve catchment values through pest control programs that target invasive flora and fauna. 	High	
	 Ensure park management activities minimise impacts on the water quality. 	High	
	 Investigate wild rivers in the planning area. The highest priority for investigation are Washpool and Coombadjha Creeks. 	Low	

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3.6 Fire management and	 Finalise and implement fire management strategies for the planning area. 	High
protection	Develop fire protection strategies for the Mulligans visitor area and provide for the evacuation of visitors in the event of wildfire or	High
	emergencies.Maintain records of fire occurrence.	High
		High
	 Use prescribed burning and/or mechanical methods to reduce fire risks where necessary. 	High
	 Maintain a system of fire trails where necessary. 	High
	 Promote increased community awareness about management of fire. 	High
	 Undertake research that can enhance fire management in the planning area. 	High
	 Rehabilitate any areas disturbed by machinery following suppression of fires. 	,a.,
3.7 Introduced plants	Prepare a plan for the control of introduced plants.	High
	 Map the distribution of priority weed species. 	Medium
	 Introduce management techniques that reduce the spread of weeds. 	High
	 Develop a riparian rehabilitation program for lantana infested areas adjacent to the Nymboida River camping area and Ringers hut. 	Medium
	 Liaise with the RTA and Severn Shire Council regarding roadside management of the Gwydir Highway to limit weed spread into the parks. 	Medium
	 Removal and rehabilitation of the pinus plantation will be in accordance with the NPWS Northern Directorate strategy for the management of plantations. 	Low
	 Monitor the spread of pines from adjacent forestry plantations and remove any seedlings that germinate within the planning area. 	Medium
	Remove the willow trees at Four Bull.	Medium
3.8 Pest animals	Prepare a pest species management plan.	High
	 Monitor the occurrence and undertake control programs for wild dogs, feral pigs, goats, deer, foxes and cats. 	High
	 Assist in the preparation and implementation of wild dog management plans. 	High
3.9 Disturbed areas	 Assess areas where operations are proposed for soil erosion hazard prior to undertaking works. 	Medium
	 Undertake appropriate erosion prevention and sedimentation control in road works. 	Medium
	 Liaise with the RTA and Severn Shire Council to develop a MOU for the Gwydir Highway. 	Medium
	Identify the extent of each disturbed area along	

		roads and trails in the planning area. Install barriers where necessary.	Medium
		Review the former gravel pit near the Gibraltar Range workshop.	Medium
	•	Undertake research to determine the most effective methods of assisted regeneration of modified landscapes.	Medium
4.1 Aboriginal cultural heritage		Work in collaboration with the appropriate Aboriginal people regarding Aboriginal cultural heritage issues in the planning area.	High
		Undertake cultural heritage surveys in collaboration with relevant Aboriginal people.	High
		Collaborate with Aboriginal people about interpretation of Aboriginal Cultural Heritage.	High
		Prepare guidelines for the cooperative management of Sugarloaf ('Gwydir') and Waratah Trig Aboriginal places.	Medium
		Pursue declaration of Goagun Aboriginal Place in consultation with appropriate Aboriginal people.	Medium
4.2 Historic cultural heritage		Liaise with the RTA to replace the cypress pines at the Gibraltar Range Park Information Centre with indigenous species when they become senescent and/or unsafe.	Low
		Develop and implement conservation plans to protect and, where appropriate, interpret historic huts.	Medium
		Assess other huts and historic resources, including the RTA huts, for cultural significance.	Medium
	•	Huts not considered worthy of conserving may be recorded and removed.	Low
	•	Provide interpretive and educative material on historic items.	Medium
5.1 Recreation opportunities		Visitor use, especially vehicle numbers, is regularly monitored.	High
		Risk assessment of visitor facilities will be ongoing.	High
5.1.1 Bushwalking		Promote walking opportunities through publicity, displays and brochures.	Medium
	•	Maintain the walking tracks shown on map 4.	High
	•	Maintain walking tracks in accordance with the "Walking Track Repair and Development Plan" (NPWS 2000).	High
		Based on the above study, and only if in accordance with wilderness provisions, realign the Dandahra Crags and Anvil Rock Tracks.	Low
		Provide a loop walking track by linking the existing Tree Fern Forest Walk with the Dandahra Creek walk.	Medium

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	•	Signpost and upgrade the "hidden pool" walking track.	Low
	•	Investigate the feasibility of constructing a short self-guided interpretive loop walk behind the Gibraltar Range Visitors Centre.	Low
	•	Investigate the feasibility of creating two walking tracks to Mt Bajimba summit and Billyrimbra Falls.	Medium
	•	Rename the "Walk on the Edge of Wilderness" as the "World Heritage Track".	Medium
	•	In consultation with relevant Aboriginal people, investigate future management options for the walking track to Waratah Trig.	Low
	•	Promote the Highland Home Management Trail as a walking opportunity in Capoompeta National Park.	Low
	•	Construct an All Access Path from the day use visitor area to Mulligans Hut.	Medium
5.1.2 Camping	•	Maintain visitor facilities, and ensure that new developments and upgrades to existing facilities and infrastructure are consistent with appendix 3.	High
	•	Introduce recycling bins in camping areas.	
	•	Implement a booking system at Gibraltar Range and Washpool National Parks for peak visitation periods if required.	High Medium
	•	Record and monitor visitor use at key camping areas.	
	•	If there is a demonstrated need the Mulligans camping area may be expanded by up to 15 additional camping sites.	High Low
	•	Replace pit toilets on the track to Mulligans flat with a closed toilet system	High
	•	Develop a plan covering fire protection at Mulligans visitor area.	High
	•	Firewood and/or gas barbecues will be provided at Mulligans camping area.	
	•	Maintain the clearing at Grassy Creek camp area. Remove picnic facilities as they become	Medium
		dilapidated.	Low
	•	Maintain current capacity of camping areas at Bellbird, Coombadjha and North Washpool.	Medium
	•	Upgrade all pit toilets in Washpool National Park to an appropriate sealed system.	High
	•	Through a permit system, allow low-key camping in west Washpool at Four Bull. A maximum of 10 vehicles (4WD only) and 30 people will be permitted at any one time. Permits will be issued for stays of up to 7 days duration.	Low

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	Provide low-key camping in west Washpool National Park at the Old Mill site.	Low
	Monitor camping and vehicle use along the Nymboida River adjacent to the formal camping area and implement restrictions on camping and vehicle access if necessary.	Medium
5.1.3 Day use areas	Firewood and/or gas barbecues will be provided at day use areas in Gibraltar Range NP.	Medium
	Liaise with State Forests of NSW regarding complementary management of the Boundary Creek Falls day use area.	Low
	Replace pit toilets in Gibraltar Range NP where there is a potential threat to ground or surface water supplies.	High
	Upgrade existing interpretation displays and installation of new display at Mulligans Hut.	Medium
	Liaise with SFNSW regarding public access to Vinegar Hill via Vinegar Hill Road.	Medium
	Maintain Billyrimbra lookout as a low-key site. Trim trees as necessary for views.	Medium
	Replace pit toilets where there is a potential threat to ground or surface water supplies with an appropriate non-polluting system in Washpool NP.	High
	Maintain day use facilities at Nymboida River camp area.	High
	Unless declared as wilderness, maintain vehicular access to Peregrine Point, Chimbley Creek and Four Mile Trig lookouts in Barool National Park and provide low-key day use facilities at Peregrine Point and Four Mile Trig.	Low
	Develop a low-key day use area at the intersection of Coxs Road and Magistrate Trail	Low
5.1.4 Vehicular access	Liaise with RTA regarding exit points and directional signage from the Gwydir Highway in order to provide effective and safe access.	High
	Liaise with RTA, local government and relevant tourism bodies about "badging" the Gwydir Highway as "The World Heritage Way".	Medium
	Promote scenic driving opportunities on the Deepwater Forest Drive, Spirabo Forest Way and proposed World Heritage Way.	Medium
	Negotiate an appropriate form of agreement with SFNSW in regard to the maintenance of jointly management roads by both NPWS and SFNSW.	High
	Negotiate with SFNSW an agreement regarding maintenance of ministerial roads used for timber harvesting.	High
	Review the need for Ministerial roads resulting	Medium

	from any changes to adjoining land tenures.	
	 Maintain all park roads to major facility areas as dry weather 2WD standard. Other park roads will only be maintained to 4WD standard. 	High Medium
	 Investigate the provision of concrete aprons at stream crossings to minimise erosion and sedimentation. 	Medium
	 Improve safety on sharp bends in Coachwood Drive by improving road alignment and using safety guard railing. 	Low
	 Provide car-touring opportunities in Barool National Park using the existing road network. 	Medium
	 Install traffic calming devices where necessary. Set speed limits on both sealed and unsealed park roads at 40 km/hr. 	High
	 Install and monitor vehicle counters on all major access points to monitor levels of use. 	High
	Maintain management trails shown on map 5.	High
	 Liaise with neighbours, local bush fire brigades, Councils and the Rural Fire Service regarding road maintenance and access for fire fighting and hazard reduction works. 	
5.1.5 Cycling	 Roads and trails may be closed to cycling where there is unacceptable environmental impact or risk to cyclists and other users. 	High
5.1.6 Fishing	Liaise with NSW Fisheries to promote and enforce regulations aimed at protecting the eastern freshwater cod, such as seasonal fishing closures, in Nymboida National Park	High
5.1.7 Horse riding	 Horse riding use and impacts will be monitored. Roads and trails may be closed to horse riding, or numbers controlled, where there are unacceptable environmental impacts, risks to riders or other park visitors. 	High
5.1.8 Commercial tours and activities	 Monitor licensing of tour operators in the planning area. 	High
	 Consider a system of timing and/or limits on group sizes if commercial activities overcrowd sites or impact on park values. 	Low
5.1.9 Adventure activities	Permit adventure activities where such activities can be safely and sustainably undertaken.	High
	 Where a potential threat to the values of the planning area are likely, adventure activities will be monitored. Where impacts threaten to these values the subject site may be closed. 	High
5.2 Promotion, interpretation and	Promote increased community awareness of fire management within the planning area.	Medium
education.	 Provide park orientation and interpretation displays at Mulligans, Gibraltar Range visitor 	High

	centre, Raspberry lookout, Bellbird/Coachwood and Nymboida River visitor facility areas.	High
	 Enhance community understanding of the parks' management and values through improved community liaison, information and participation. 	3
	 In collaboration with the Aboriginal community prepare interpretive material for appropriate Aboriginal cultural heritage sites. 	Medium
	 Liaise with Tourism Associations, local government and RTA regarding promotion of the "World Heritage Way" concept. 	Medium Medium
	 Promote 4WD touring opportunities along Spirabo Forest Way in conjunction with Deepwater Progress Association and SFNSW. 	Wediaiii
	 Provide and maintain accurate walking track information. 	High
	 Finalise the current upgrade of the information displays at Gibraltar Range Park Information Centre, Mulligans, Raspberry Lookout, Bellbird, Coombadjha, Coachwood and Granites areas. 	High
	 Install an information display at Nymboida River camping area. 	High
	Upgrade the displays at the Gibraltar Range Park Information Centre to help visitors orientate themselves to the entire planning area.	Medium
	 Maintain an up-to-date park brochure for the planning area. 	High
	 Where appropriate provide assistance with education programs for schools and universities. 	High
	 Provide assistance where appropriate to commercial tour operators and tourism representatives. 	Medium
5.3 Research	 Prepare a prospectus of priority research projects in the planning area. 	High
	 Liaise with local universities to encourage research in priority projects in the planning area. 	High
5.4.1 Bee keeping	 Wherever possible, maintain access tracks and sites by slashing to minimise disturbance. 	Medium
	 Wherever possible relocate existing apiary sites that occur within declared wilderness. 	Medium
5.4.2 Grazing	 Fences no longer required for management purposes, especially internal fencing of former pastoral holdings, may be removed. 	Low
5.4.3 Non-NPWS infrastructure	 Infrastructure that is an "existing interests" under the NPW Act will be licensed subject to relevant conditions and, where appropriate, payment of commercial fees will be required. 	High
	 Liaise with LPI to determine the ongoing requirements for trig stations in the planning area 	Low

APPENDICES

Appendix 1: Rare and threatened flora

Appendix 1: Rare and threatened flora					
Name	Legal status ⁽¹⁾	Conservation status ⁽²⁾			
Acacia barringtonensis		3Rca			
Barrington Wattle					
Acacia brunioides subsp.		3RC			
Brunioides					
Acacia brunioides subsp. granitica		3RC			
Acacia cangaiensis		2RC			
Cangai wattle					
(E)Acacia sp. aff. gordonii		a new species related to			
		Acacia brunoiodes			
Acacia macnuttiana	E*	2VC-			
McNutt's wattle					
Acacia orites		2RC-			
Mountain wattle					
Acacia tessellata		2RC-			
Acianthus amplexicaulis		3RC			
Asplenium aethiopicium		3RC			
^(E) Boronia angustisepala (formerly		2RC-			
Boronia rubiginosa)					
Brachyloma saxicola		3RCa			
Callitris monticola		3RC			
Dwarf cypress pine					
Chiloglottis sp. aff sphyrnoides		3KC-			
(Northern Tablelands)					
Bird Orchid					
Conospermum burgessiorum		3RCa			
Large-Leaved Smokebush					
Cryptandra lanosiflora		3RCa			
Wooly Cryptandra					
Cryptostylis hunteriana	V	3VC			
Leafless Tongue Orchid					
(E) Dillwynia sp. 'Gibraltar Range'		2RC-t			
rupestris ms, sp.A					
Gibraltar Range parrot pea					
Dodonaea rhombifolia		3RCa			
Hopbush					
(E) Dodonaea serratifolia		2RC			
Gibraltar Range hopbush (no not					
endemic)					
Eucalyptus codonocarpa		3RC			
New England Mallee					
Endiandra muelleri ssp. bracteata	Е				
(E) Eucalyptus dissita	Recommended for				
	listing on the TSC Act as				
Eurobyntus dorriges ansis	an endangered species.	3VC			
Eucalyptus dorrigoensis		3KC-			
Dorrigo white gum					

Name	Legal status ⁽¹⁾	Conservation status ⁽²⁾
Eucalyptus olida		2RCa
Gibraltar Ash		
Eucalyptus retinens		2RC-
Hillgove box		
^(E) Eucalyptus sp. nov		2VC-
Spirabo red gum		
^(E) Eucalyptus subcaerulea		2RC
Blue stringybark		
^(E) Genoplesium sp. aff.		2VC-
Sigmoideum		
Grammitis stenophylla	E?*	
<i>Grevillea acanthifolia</i> subsp.		3RC
Stenomera		
Swamp Spider Flower		
^(E) Grevillea acerata		2RC-t
^(E) Grevillea mollis		
Soft-leaved Spider Flower	E*	2VCit
^(E) Grevillea rhizomatosa	V*	2VC-t
Hakea macrorrhyncha Tall		3RC
Needle Bush		
Hibbertia hermanniifolia		3RCa
Guinea flower		
Hibbertia sp. 'New England'		3RC
^(E) Hibbertia rhynchocalyx	Е	
Hibbertia villosa		3KC
Hairy Guinea Flower		
Hydrocharis dubia		2V
Keraudrenia corollata var.		3RC
denticulata		
Kunzea bracteolata		3RC-
Granite kunzea		
Leionema ambiens		3RC-
Marsdenia liisae		3RC
Large-flowered Milk Vine		
Macadamia tetraphylla	V*	2VCi
Marsdenia longiloba		3RC-
Melaleuca tortifolia		2RC-t
Mirbelia confertifolia		3RC
Olearia gravis		3KC-
Ozothamnus whitei		3RC-
^(E) Parsonsia tenuis		2RC-t
Slender silkpod (not endemic)		
^(E) Persoonia rufa		2RCa
Rusty Geebung		
Plectranthus suaveolens		3KC-
Mint bush Cock spur flower		
Podolobium aestivum		3RC-
Podolobium aestivum Oxylobium		3RC
sp. 'Mt Warning – Gibraltar Range'		
Pterosylis woollsii		3RCi
Long-tailed greenhood		

Name	Legal status ⁽¹⁾	Conservation status ⁽²⁾
Pultenaea pycnocephala		3RCa
Shiny-leaved Bush Pea		
^(E) <i>Pultenaea</i> sp. B. 'Gibraltar		2RC-t
Range'		
Ricinocarpus speciosus		3RCi
Wedding bush		
Tasmannia glaucifolia	V*	3VCi
(record very doubtful, requires		
confirmation)		
^(E) Telopea aspera		2RCa
Gibraltar Waratah		
Thelionema grande		3RC
Large Blue Lily		
Tylophora woollsii	E*	2E
Tinospora smilacina	Е	
Arrow-head vine		
Westringia sericea		3KC

⁽¹⁾ Legal status under TSC Act. E = Endangered (Part 1, Schedule 1); V = Vulnerable (Schedule 2).

⁽²⁾ Conservation status given by, or consistent with, Briggs and Leigh's (1996) national assessment

⁽E) Species endemic to the planning area.

⁽P) Recovery plan prepared or in preparation.

^{• *} Also listed under EPBC Act.

[?] Identification still being confirmed.

Appendix 2: Threatened fauna

Name	Preferred habitat	Legal Status ⁽¹⁾
Fish		
Maccullochella ikei	Deep rivers with rocky substrate and large	
(P)Clarence River Cod	amounts of instream cover (e.g. snags, boulders)	E* ⁽²⁾
Frogs		
Assa darlingtoni Pouched frog	Rainforests	V
Litoria piperata?	Clear rocky dry escarpment creek lines with	
(P)Peppered tree frog	stream-side vegetation including Lomandra, Leptospermum and Casuarina	V
<i>Litoria subglandulosa</i> New England tree frog	Upland forests and woodlands	V
^(P) Mixophyes balbus Stuttering frog	Rainforest and wet sclerophyll forest	V
(P) Mixophyes iteratus Giant barred frog	Rainforest and wet sclerophyll forest	E*
Philoria sp. nov. B	Rainforest and wet sclerophyll forest – in	
Sphagnum frog	creek banks and rocky piles with subsurface water	V
Reptiles		
Hoplocephalus stephensii Stephen's Banded Snake	Rainforests, wet and dry sclerophyll forests	V
Birds		
Rufous scrub-bird	Rainforest and open forest with rainforest understorey	V
Bush stone-curlew	Open forest and woodland with sparse understorey	Е
Glossy black-cockatoo	Open forests; hollows dependent; feeds exclusively on casuarina seeds	V
^(P) Red goshawk	Open forests and rainforest boundaries	Е
Square-tailed kite	Open woodland, forest; very large home range	V
(P)Powerful owl	Forests and woodland; large territories; hollow dependent	V
Olive whistler	Moister forests. Nests in shrub layer	V
Wompoo fruit-dove	Rainforest	V
Rose-crowned fruit-dove	Rainforest	V
<i>Neophema puchella</i> Turquoise Parrot	Zone between woodland and grassland	V
^(P) Masked owl	Open forest; requires tree hollows for roosting	V
(P)Sooty owl	Wetter forests; requires tree hollows for roosting and breeding	V
Marsupials		1
^(P) Rufous bettong	Rocky woodland and forests with grassy understorey	V
Name	Preferred habitat	Legal Status ⁽¹⁾
Spotted-tailed quoll	All forest types	V
(P)Black-striped wallaby	Rainforest and open forests with dense understorey	E

Yellow-bellied glider Open forest (requires old trees with hollows) V Squirrel glider Open forests or occasionally rainforest ecotones (P)Brush-tailed rock-wallaby (P)Brush-tailed phascogale (P)Koala (P)Long-nosed potoroo (P)Red-legged pademelon (P)Red-legged pademelon (P)Pseudomys oralis Hastings River mouse Bats (P)Golden-tipped bat (P)Golden-tipped bat (P)Common bent-wing bat (P)Common bent-wing bat (P)Common bent-wing bat (P)Coreat proad-mosed bat (P)Coreat proad-nosed bat (P	^(P) Parma wallaby	Wetter montane forests with dense	V
Squirrel glider Open forests or occasionally rainforest ecotones (P)Brush-tailed rock-wallaby Rocky outcrops in drier forest areas Dry open forests and woodlands (requires tree hollows for nesting) Occurs in open forest and rainforest ecotones Wetter forests with structurally diverse mosaic of forest types near a dense understorey (P)Red-legged pademelon Wetter forests and rainforest V Rodents (P)Reudomys oralis Hastings River mouse Bats (P)Hoary bat Roosts in rock crevices or tree hollows V (P)Great pipistrelle Upland wet forests (requires tree hollows for roosting) (P)Golden-tipped bat dajacent dry forests (P)Miniopterus australis Little bent-wing bat (P)Common bent-wing bat few nursery caves (P)Eastern Little Mastiff-bat Riparian forests (requires tree hollows or occasionally under bridges, feeds on aquatic insects (P)Coreate proad-nosed bat Riparian forests (requires tree hollows or occasionally under bridges, feeds on aquatic insects Riparian forests (requires tree hollows for roosting) V Open forests and woodland forest occurs and tunnels or occasionally under bridges, feeds on aquatic insects Riparian forests (requires tree hollows for roosting) V Open forests and woodland forest occurs	Vollow bollied glider	Understorey Open forest (requires old trees with bellows)	
Picture Grade ecotones V	r ellow-bellied glider		V
(P)Brush-tailed phascogale Dry open forests and woodlands (requires tree hollows for nesting) V (P)Koala Occurs in open forest and rainforest ecotones V (P)Long-nosed potoroo Wetter forests with structurally diverse mosaic of forest types near a dense understorey V (P)Red-legged pademelon Wetter forests and rainforest V Rodents Riparian zones of forests and woodlands E Bats Riparian zones of forests and woodlands E Bats Upland wet forests (requires tree hollows V (P)Great pipistrelle Upland wet forests (requires tree hollows for roosting) V (P)Golden-tipped bat Forages in canopy of rainforests and adjacent dry forests V (P)Miniopterus australis Forages beneath canopy of rainforests and dry scleropyll forests; roosts in caves and tunnels V (P)Common bent-wing bat Forages above forest canopy; roosts in caves and tunnels; breeding restricted to a few nursery caves V (P)Large-footed myotis Roosts in caves, mines or tunnels or occasionally under bridges, feeds on aquatic insects V (P)Greater broad-nosed bat Riparian forests (requires tree hollows for roosting) V	_	ecotones	-
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(P)Long-nosed potoroo (P)Red-legged pademelon (P)Red-legged pademelon	^(P) Brush-tailed phascogale		V
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Riparian zones of forests and woodlands E	(P)Red-legged pademelon	Wetter forests and rainforest	V
Hastings River mouse **Bats** (P) Hoary bat Roosts in rock crevices or tree hollows V Upland wet forests (requires tree hollows for roosting) (P) Golden-tipped bat Forages in canopy of rainforests and adjacent dry forests (P) Miniopterus australis Little bent-wing bat Forages beneath canopy of rainforests and dry sclerophyll forests; roosts in caves and tunnels (P) Common bent-wing bat Forages above forest canopy; roosts in caves and tunnels: breeding restricted to a few nursery caves (P) Eastern Little Mastiff-bat Schleropyll forest and woodland V (P) Large-footed myotis Roosts in caves, mines or tunnels or occasionally under bridges, feeds on aquatic insects (P) Greater broad-nosed bat Riparian forests (requires tree hollows for roosting)			
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Adjacent dry forests (P) Miniopterus australis Little bent-wing bat (P) Common bent-wing bat (P) Eastern Little Mastiff-bat (P) Large-footed myotis (P) Greater broad-nosed bat (P) Greater broad-nosed bat (P) Miniopterus australis Forages beneath canopy of rainforests and dry sclerophyll forests; roosts in caves and tunnels tunnels Forages above forest canopy; roosts in caves and tunnels; breeding restricted to a few nursery caves V Roosts in caves, mines or tunnels or occasionally under bridges, feeds on aquatic insects Riparian forests (requires tree hollows for roosting)	(P)Great pipistrelle		V
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Roosts in caves, mines or tunnels or occasionally under bridges, feeds on aquatic insects (P)Greater broad-nosed bat Roosts in caves, mines or tunnels or occasionally under bridges, feeds on aquatic insects Riparian forests (requires tree hollows for roosting)	(P)Common bent-wing bat	caves and tunnels; breeding restricted to a	V
Roosts in caves, mines or tunnels or occasionally under bridges, feeds on aquatic insects (P)Greater broad-nosed bat (P)Greater	(P)Eastern Little Mastiff-bat		V
roosting)	(P)Large-footed myotis	Roosts in caves, mines or tunnels or occasionally under bridges, feeds on aquatic	V
(P)Eastern cave bat Dry open forest, roosts in caves V		Riparian forests (requires tree hollows for roosting)	•
	(P)Eastern cave bat	Dry open forest, roosts in caves	V

⁽¹⁾ legal status under TSC Act. E = Endangered (Part 1, Schedule 1); V = Vulnerable (Sch. 2).
(2) listed as Endangered under the NSW *Fisheries Management Act 1994*. Not listed in TSC Act.
* also listed under Commonwealth EPBC Act. ? identification still being confirmed.
(P) recovery plan prepared or in preparation. (E) species endemic to the planning area.

Appendix 3: Existing and Proposed Visitor Facilities

	Gibralta	ar Range National Park	
Day use and camping areas	Description	Existing facilities	Proposed Facilities
Park Information Centre	Information Centre located on the Gwydir Highway at the entrance to Gibraltar Range National Park.	Interpretation displays and brochures covering natural and cultural heritage values, visitor facilities and recreational opportunities within the Parks. Parking for 15 cars, parking for buses and caravans (in association with the Visitor Centre).	Modification and upgrade of interpretation and brochure displays.
Grassy Creek bush camping area	Low-key bush camping site for walkers using the "World heritage Track"	Clearing with picnic table.	Maintain clearing, but do not replace facilities.
Mulligans day use and camping area	Large developed area 9 km's along Mulligans Drive. Bush setting adjacent to Little Dandahra Creek.	Mulligans hut – old hut with picnic table and fire place, swimming holes, large newly upgraded picnic and day use area with tables, reticulated water and 3 covered eating galleys, 15 camp sites and a group camping area with about6 camp sites, gas and wood fireplaces, car parks and bus parking area, tables, cold showers, toilets (1 rota loo, 7 flush toilets and 3 pit toilets), 4 garbage pits, numerous walking tracks to the escarpment and granite outcrops.	Capacity may be expanded by up to 15 campsites, and appropriate toilet facilities, in the life of the plan. Removal of garbage facilities in day use areas; provide garbage and recycling facilities in camping area. Review all pit toilets and replace when possible with appropriate system. Provide fire wood or gas BBQs at day use areas. Upgrade existing interpretation displays and installation of new display at Mulligans Hut. Construct an All Access Path to Mulligans Hut. Provide appropriate safety signs for swimmers in the Mulligans area.
Dandahra day use area	Adjacent to the highway and Gibraltar Range visitors centre. Day use facilities with open grassy setting.	Site contains picnic tables, wood fireplaces, flush toilets including disabled toilet and reticulated water.	Maintain existing facilities. Provide fire wood or gas BBQs at day use areas. Investigate the potential for an interpretative walk behind the Gibraltar Range Visitor Centre.
Platypus day use area	Small, low-key picnic area situated on the banks of Little Dandahra Creek in closed bush setting.	Has picnic tables and fireplaces, parking for two cars.	Maintain existing facilities.
Raspberry Lookout	About 1 km off the highway. Spectacular panoramic views looking south over the Bindery-Mann Wilderness area.	Partly sealed road. Newly constructed lookout and interpretation display, picnic tables, parking bay for buses, turning circle and sealed pit toilet.	Upgrade interpretation displays.

Books I books which are I Brother than I Brother th			
Raspberry day use area Vinegar Hill Boundary	Low-key picnic area in closed tall old growth forest setting adjacent to Raspberry lookout. Low-key lookout site with 4WD access through State Forest About one and a half	Picnic tables, wood fireplaces, pit toilet and a garbage pit. Cleared hill top with broad views, no other facilities. Gravel road access.	Due to tree safety issues, either close the access to all vehicles and allow foot access to the site with 1 table installed in the clearing; or limit car parking and table to the clearing at the entrance of the area. Maintain clearing and minimal low-key facilities Retain low-key setting. No
Creek Falls camping and day use area	kilometres off the highway on the western boundary of the planning area. Forest setting adjoining scenic Boundary Creek Falls, close to Lyrebird Falls.	Dilapidated visitor facilities and site degraded due to uncontrolled vehicle access. Low-key recreation setting.	significant increase in capacity. Replace toilets, BBQs and tables. Provide access for caravans etc. Separate day use and camping functions. Upgrade falls walking track. Construct walking track and improve vehicle access to Lyrebird Falls. Provide appropriate interpretative facilities.
	Was	hpool National Park	
Bellbird camping area	Provides sites for picnickers, car campers and large groups. Situated in a rainforest clearing near Coombadjha Creek.	Wood fireplaces, gas BBQs, tables, covered eating galley, reticulated water and pit toilets. 12 campsites adjacent to the rainforest. End point in for caravans and buses. A turning circle is provided. Access to walking tracks including 1.4 km loop walk, 8.5 km loop track (Washpool Walk) and wilderness walking.	Modification of existing road, maintenance of existing facilities, upgrade pit toilet to appropriate new system. Provide garbage and recycling facilities. Upgrade interpretation display.
Coombadjha camping area	Walk in only picnic and camping area across a small bridge over Coombadjha Creek at the end of Coachwood Drive. Rainforest setting.	Walk in, open grass camping area, tables and a pit toilet, wood bay, wood fire places, information display, car parking and walking tracks.	Replace pit toilet with appropriate system, Provide recycling and waste facility. Upgrade interpretation display.
Granites lookout and day use area	Day use area off Coachwood Drive. Set amongst granite eucalypt environment. Lookout provides spectacular views over Washpool wilderness.	Covered eating galley with gas BBQ, picnic tables, pit toilet and parking area. Walking tracks.	Replace pit toilet with appropriate toilet system.
Coachwood day use area	Situated between Bellbird and Coombadjha camping area. Rainforest setting.	Covered eating galley, gas BBQ, tables, pit toilet, information display, car parking.	Replace pit toilet with appropriate toilet system. Upgrade of interpretation display.
Hakea clearing	Small, virtually unused picnic area in moist forest/rainforest setting. Not actively promoted as a visitor destination.	Small car parking space.	Maintain as an un signposted access point to Hakea walk with no visitor facilities. Maintain a small car parking area off the highway.

AL 4	I	District Callet Constitution of	B I		
North	Low-key camping	Picnic table, fire-place, pit	Replace pit toilet with		
Washpool	area adjacent to	toilet, garbage pit and car	appropriate toilet system.		
camping and	Washpool Creek. Set	parking. Close to			
day use area	amongst grassy	management trail network.			
"	forest setting.				
Four Bull	Newly acquired.	Currently no visitor facilities.	Provide low-key camping		
camping area	Large cleared area		subject to a permit system.		
	adjacent to old hut		Provide basic facilities of a		
	and cabin on Four		pit toilet or equivalent, tables		
	Bull Creek.		and fireplace.		
Old Mill	Cleared area,	Currently no visitor facilities.	Provide mown cleared area,		
camping area	adjacent to pine		pit toilet, table and fire place.		
	plantation.				
Billyrimba	Undeveloped lookout	Car parking and	Maintain as low-key lookout		
lookout	situated off	undeveloped viewing area.	with basic facilities of table		
	Billyrimbra Fire trail.		and fireplace.		
	Spectacular views to				
	the Timbarra				
	Plateau.(Still State				
	Forest)				
	Nym	boida National Park			
Nymboida	Camping area on	Fireplaces, tables,	Maintain existing facilities at		
River	Nymboida River.	interpretive display and a	current capacity.		
camping area	River side setting in	composting toilet.	Development of visitor		
	eucalypt forest.		facilities will not be permitted		
			in identified or declared		
			Wilderness Areas.		
L		Capoompeta National Park			
	Саро	ompeta National Park			
Capoompeta	Capoc Low-key picnic area	Ompeta National Park Currently no visitor facilities.	Provide car parking, tables,		
Capoompeta day use area			Provide car parking, tables, fireplace and information		
	Low-key picnic area				
	Low-key picnic area at the intersection of		fireplace and information		
	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail.	Currently no visitor facilities.	fireplace and information board.		
day use area	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp		fireplace and information		
day use area Highland	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail.	Currently no visitor facilities.	fireplace and information board.		
day use area Highland Home	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site	Currently no visitor facilities.	fireplace and information board.		
Highland Home Herbfield	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site	Currently no visitor facilities. Currently no visitor facilities rool National Park	fireplace and information board. Provide signage and table		
Highland Home Herbfield Development of	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are	fireplace and information board. Provide signage and table eas, however, portion of Barool		
Highland Home Herbfield Development of National Park is	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness		
Highland Home Herbfield Development of National Park is declaration had	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Future	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re facility development is dependent.	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness and the Wilderness		
Highland Home Herbfield Development of National Park is declaration had declaration out	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futurcomes. Potential areas	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re facility development is depethat could be provided if not cov	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness indent on the Wilderness indent on the Wilderness indent by wilderness are:		
Highland Home Herbfield Development of National Park is declaration had declaration out	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re facility development is depethat could be provided if not cover Carpark and turnaround	provide signage and table eas, however, portion of Barool commended for wilderness ared by wilderness are: Maintain as low-key lookout		
Highland Home Herbfield Development of National Park is declaration had declaration out	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re facility development is depethat could be provided if not cov	provide signage and table eas, however, portion of Barool commended for wilderness ared by wilderness are: Maintain as low-key lookout with basic facilities; table, fire		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is dependent to could be provided if not cover a could be provided if not cover a could around area	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness ndent on the Wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re facility development is depethat could be provided if not cover Carpark and turnaround	eas, however, portion of Barool commended for wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing Provide and information barool table		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed Track Head,	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head at the end of Narlala	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is dependent to could be provided if not cover a could be provided if not cover a could around area	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness ndent on the Wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head at the end of Narlala Road. Track leads to	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is dependent to could be provided if not cover a could be provided if not cover a could around area	eas, however, portion of Barool commended for wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing Provide and information barool table		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed Track Head,	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head at the end of Narlala Road. Track leads to Mann River via	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is dependent to could be provided if not cover a could be provided if not cover a could around area	eas, however, portion of Barool commended for wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing Provide and information barool table		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed Track Head,	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head at the end of Narlala Road. Track leads to Mann River via Cooraldooral Trail	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is dependent to could be provided if not cover a could be provided if not cover a could around area	eas, however, portion of Barool commended for wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing Provide and information barool table		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed Track Head, Narlala Road	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head at the end of Narlala Road. Track leads to Mann River via Cooraldooral Trail (wilderness)	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is depethat could be provided if not cover Carpark and turnaround around area Currently no facilities	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness ndent on the Wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing Provide turnaround area, car park and information display.		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed Track Head, Narlala Road	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head at the end of Narlala Road. Track leads to Mann River via Cooraldooral Trail (wilderness) Undeveloped lookout	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is dependent to could be provided if not cover a could be provided if not cover a could around area	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness ndent on the Wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing Provide turnaround area, car park and information display. Maintain as low-key lookout		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed Track Head, Narlala Road	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head at the end of Narlala Road. Track leads to Mann River via Cooraldooral Trail (wilderness) Undeveloped lookout overlooking Newton	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is depethat could be provided if not cover Carpark and turnaround around area Currently no facilities	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness ndent on the Wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing Provide turnaround area, car park and information display. Maintain as low-key lookout with basic facilities; table, fire		
Highland Home Herbfield Development of National Park is declaration had declaration out Peregrine Point lookout Proposed Track Head, Narlala Road	Low-key picnic area at the intersection of Coxs Road and Magistrate Trail. Remote bush camp site Ba visitor facilities is not per identified wilderness but not been finalised. Futur comes. Potential areas Undeveloped lookout overlooking Cooraldooral Creek Proposed track head at the end of Narlala Road. Track leads to Mann River via Cooraldooral Trail (wilderness) Undeveloped lookout	Currently no visitor facilities. Currently no visitor facilities rool National Park mitted in declared wilderness are at the time of writing the area re a facility development is depethat could be provided if not cover Carpark and turnaround around area Currently no facilities	fireplace and information board. Provide signage and table eas, however, portion of Barool commended for wilderness ndent on the Wilderness ered by wilderness are: Maintain as low-key lookout with basic facilities; table, fire place; maintain clearing Provide turnaround area, car park and information display. Maintain as low-key lookout		

Appendix 4: Australian World Heritage Management Principles

1 General principles

- 1.01 The primary purpose of management of natural heritage and cultural heritage of a declared World Heritage property must be, in accordance with Australia's obligations under the World Heritage Convention, to identify, protect, conserve, present, transmit to future generations and, if appropriate, rehabilitate the World Heritage values of the property.
- 1.02 The management should provide for public consultation on decisions and actions that may have a significant impact on the property.
- 1.03 The management should make special provision, if appropriate, for the involvement in managing the property of people who:
 - (a) have a particular interest in the property; and
 - (b)may be affected by the management of the property.
- 1.04 The management should provide for continuing community and technical input in managing the property.

2 Management planning

- 2.01 At least 1 management plan should be prepared for each declared World Heritage property.
- 2.02 A management plan for a declared World Heritage property should:
 - (a) state the World Heritage values of the property for which it is prepared; and
 - (b)include adequate processes for public consultation on proposed elements of the plan; and
 - (c) state what must be done to ensure that the World Heritage values of the property are identified, conserved, protected, presented, transmitted to future generations and, if appropriate, rehabilitated; and
 - (d)state mechanisms to deal with the impacts of actions that individually or cumulatively degrade, or threaten to degrade, the World Heritage values of the property; and
 - (e)provide that management actions for values, that are not World Heritage values, are consistent with the management of the World Heritage values of the property; and
 - (f) promote the integration of Commonwealth, State or Territory and local government responsibilities for the property; and
- (g) provide for continuing monitoring and reporting on the state of the World Heritage values of the property; and
- (h) be reviewed at intervals of not more than 7 years.

3 Environmental impact assessment and approval

- 3.01 This principle applies to the assessment of an action that is likely to have a significant impact on the World Heritage values of a property (whether the action is to occur inside the property or not).
- 3.02 Before the action is taken, the likely impact of the action on the World Heritage values of the property should be assessed under a statutory environmental impact assessment and approval process.
- 3.03 The assessment process should:
 - (a)identify the World Heritage values of the property that are likely to be affected by the action: and
 - (b) examine how the World Heritage values of the property might be affected; and (c) provide for adequate opportunity for public consultation.
- 3.04 An action should not be approved if it would be inconsistent with the protection, conservation, presentation or transmission to future generations of the World Heritage values of the property.
- 3.05 Approval of the action should be subject to conditions that are necessary to ensure protection, conservation, presentation or transmission to future generations of the World Heritage values of the property.
- 3.06 The action should be monitored by the authority responsible for giving the approval (or another appropriate authority) and, if necessary, enforcement action should be taken to ensure compliance with the conditions of the approval.

Appendix 5: Noxious Weeds Categories and Associated Actions

	: Noxious Weeds Categories and Associated Actions
Category	Action
W1 Noxious Weed	The presence of the weed on land (or in water) must be notified to the Local Control Authority and the weed must be fully and continuously suppressed and destroyed.
W2 Noxious Weed	The weed must be fully and continuously suppressed and destroyed.
W3 Noxious Weed	The weed must be prevented from spreading and its numbers and distribution reduced.
W4 Noxious Weed	The action specified in the declaration must be taken in respect of the weed.
	W 4^a Noxious Weed - The weed shall not be sold, propagated or knowingly distributed and any part of the weed must be prevented from growing within 3m of the boundary of a property.
	W 4^b Noxious Weed - The weed shall not be sold, propagated or knowingly distributed and any existing weed must be prevented from flowering and fruiting.
	W 4 ^c Noxious Weed - The weed shall not be sold, propagated or knowingly distributed and the weed must be prevented from spreading to an adjoining property.
	W 4 ^d Noxious Weed - The weed shall not be sold, propagated or knowingly distributed and the weed must be removed if it is: - 3 metres in height or less, or - within half a kilometre of remnant urban bushland, as defined by SEPP 19, and is not deemed by a council as having historical or heritage significance.
	W 4^e Noxious Weed - The weed must be fully and continuously suppressed and destroyed. All reasonable precautions must be taken to ensure produce, soil, livestock, equipment and vehicles are free of the weed before sale or movement from an infested area of the property.
	W 4 ^f Noxious Weed - The weed must not be sold, propagated or knowingly distributed. Any biological control or other control program directed by a local control authority must be implemented.
	W 4^g Noxious Weed - The weed must not be sold, propagated or knowingly distributed.

Source: N.S.W. Noxious Weeds Act 1993

GLOSSARY

Biological diversity, namely the variety of life forms: the

different plants, animals and micro-organisms, the genes they contain, and the ecosystems they form. It is usually considered at four levels: genetic diversity, species diversity, ecosystem diversity and community

diversity (ANHC 1996)

Biogeographic region A complex land area defined by a combination of

biological and geographic criteria rather than

geopolitical considerations and composed of a cluster of ecosystems and communities that are repeated in similar form throughout. Biogeographic regions vary in size, with larger regions found where areas have subdued terrain, and low variability in soil types, geology, vegetation and climate. Also known as bioregion. (Thackway & Cresswell 1995, NSCABD

1996)

Cultural heritage Encompasses past and present cultural associations of

all people in Australia, including tradition, knowledge and customs. It can be tangible (ie. have physical manifestations in the form of art, buildings etc.) or intangible (ie. spiritual or social associations, songs, stories and cultural practices). Cultural significance includes values that are social, spiritual, aesthetic, historic and scientific. When natural resources acquire meaning for a particular group, they become cultural

resources as well. (ANHC 1996)

Declared wilderness In NSW, a statutory term for areas of identified

wilderness that have been declared by the NSW Minister for the Environment under the Wilderness Act or the NPW Act following consideration by Cabinet. Declaration is by notification published in the Gazette.

(Wilderness Act, NPW Act)

Ecological processes All those processes that occur between organisms, and

within and between population and communities, including interactions with the non-living environment

(ANHC 1996)

Ecotones The boundary between two distinct ecosystems or

communities, where species and elements of both are

present

Endangered A species, population or ecological community that is

listed in Schedule 1 of the TSC Act as in danger of

becoming extinct

Endemic Restricted to a specified region or locality (NSCABD

1996)

Evolutionary processes Genetically-based processes by which life forms are

believed to change and develop over generations

(ANHC 1996)

Fauna Any mammal, bird, reptile or amphibian. NPWS has

responsibility for the conservation of fauna. Note this

definition excludes fish or invertebrates

Fire authority Organisations (including land management authorities

such as NPWS) vested by the RF Act with the

responsibility to suppress fires. Under the *RF Act*, Fire management activities on NPWS reserves are the

responsibility of NPWS

Fire Management Includes all activity associated with the use and control

of fire in bushland designed to achieve stated objectives

for the protection of life and property, and the

maintenance of wildlife communities

Gondwana The southern supercontinent that started to break up

about 150 million years ago, consisting of what are now Australia, South America, Africa, Antarctica, India, Madagascar and New Zealand (NSCABD 1996)

Historic places Landscapes, sites buildings or other works together

with pertinent contents and surroundings and include structures, ruins, archaeological sites and areas

Historic resources All evidence of post-European invasion of NSW,

physical, oral and documentary

Identification An obligation under the World Heritage Convention is to

identify areas of outstanding universal value that are considered worthy of recognition under the World Heritage Convention, and to comprehensively

document these values (CERRA 2000)

Identified wilderness In NSW, a statutory term for areas assessed as

satisfying the criteria specified in section 6 of the *Wilderness Act 1987* and which have been formally identified by the Director-General. Identification usually occurs through Director-General endorsement of a

Wilderness Assessment Report

Introduced species A species occurring in an areas outside its historically

known natural range as a result of intentional or

accidental dispersal by human activities. Also known as

exotic or alien species (NSCABD 1996)

Presentation An obligation under the World Heritage Convention to

provide information, education, interpretation, promotion and publicity for a World Heritage property in a way that creates a greater understanding of, and support for its outstanding universal values and the World Heritage

concept (CERRA 2000)

Protected area An area of land and/ or sea especially dedicated to the

protection and maintenance of biological diversity, and

of natural and associated cultural resources, and managed through legal or other effective means (IUCN 1004)

1994)

Protection An obligation under the World Heritage Convention to

ensure that appropriate long-term legislative, regulatory and institutional arrangements are in place and to obtain community support for these arrangements

(CERRA 2000)

Recovery plan A document, prepared under the TSC Act, that

identifies the actions to be taken to promote the recovery of a threatened species, or endangered

population or ecological community

Regeneration The recovery of natural integrity following disturbance

or degradation. This can be achieved through totally natural processes or an assisted process, where human

intervention (through removing weeds or planting seedlings) accelerates recovery (ANHC 1996)

Rehabilitation An obligation under the World Heritage Convention to

restore degraded areas to naturally functioning ecosystems that can continue to support and pose no

threat to World Heritage values (CERRA 2000)

Traditional owners A local descent group of indigenous people who have

common spiritual affiliations to an area and primary spiritual responsibility for sites in that area and are entitled by indigenous tradition to forage as of right over

the land (EPBC Act)

Wilderness proposal In NSW, a statutory term for an area of land described

in a written submission to the Director-General by any person, body or organisation to be considered for identification and declaration as wilderness. Wilderness

proposals are provided for under section 7 of the

Wilderness Act 1987

World Heritage Convention The UNESCO Convention Concerning the

Protection of the World Cultural and Natural Heritage, ratified by Australia in 1974. The World Heritage Convention establishes a list (the World Heritage List) of sites of outstanding universal value and encourages

international cooperation in the protection of these sites

World Heritage values Natural and cultural heritage that is of outstanding

universal value and which enables an area to meet the requirements, under the guidelines of the World Heritage Convention, for listing as a World Heritage site. World Heritage values of a declared World

Heritage property are matters of National Environmental Significance under the *EPBC Act* (TWWHAMP 1999)

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