

# **Norfolk Island National Park (including Phillip Island)**

## **Plan of Management**



## Note

This Plan of Management for Norfolk Island National Park has been prepared in accordance with the requirements of the National Parks and Wildlife Conservation Act 1975 under which the Park was established and has been managed. The National Parks and Wildlife Conservation Act is, however, to be replaced by the Environment Protection and Biodiversity Conservation Act 1999 by no later than 16 July 2000. The new Act will also replace the Environment Protection (Impact of Proposals) Act 1974, Endangered Species Protection Act 1992, Whale Protection Act 1980 and World Heritage Properties Conservation Act 1983. References to any of these Acts in this Plan of Management are to be read where necessary as including references to the Environment Protection and Biodiversity Conservation Act.

The Environmental Reform (Consequential Provisions) Act 1999 will continue the operation of this Plan as if it had been made under the Environment Protection and Biodiversity Conservation Act but the Plan will need to be read subject to the provisions of the new Act.

The Director of National Parks and Wildlife will continue to be responsible for the administration, management and control of the Park in accordance with this plan, although the name of the Director will be changed to the Director of National Parks.

Copies of the Environment Protection and Biodiversity Conservation Act and the Environmental Reform (Consequential Provisions) Act may be purchased from Commonwealth Government bookshops or may be viewed on the Internet at <http://www.austlii.edu.au/au/legis/cth> or <http://scaleplus.law.gov.au>.

This Plan of Management has been prepared under sections 11 and 12 of the National Parks and Wildlife Conservation Act 1975, sections 2 and 3 of the Norfolk Island National Park and Norfolk Island Botanic Garden Regulations 1988 and to be consistent with sections 365-373 of the Environment Protection and Biodiversity Conservation Act 1999.

The Plan applies to Norfolk Island National Park. The Park comprises two distinct areas, the original component (to be referred to in this Plan as the Mt Pitt section) and Phillip Island. The first Plan of Management for the Norfolk Island National Park (then only the Mt

Pitt section) was published in 1984 and has guided management of the Park since then. In 1989 a preliminary management plan for Phillip Island was prepared but has never been formally implemented.

This Plan of Management commences in accordance with section 12(3) of the NPWC Act and will cease to have effect on the day specified by the Minister in a notice published in the Commonwealth Government Gazette pursuant to section 12(6) of the Act.

Consistent with section 373 of the EPBC Act, it is intended that the Plan will be effective for seven years or until a new Plan comes into operation within the prescribed seven year period.

## **2.1 Interpretation**

In this Plan of Management:

- ‘Act’ means the National Parks and Wildlife Conservation Act 1975 and from the commencement of the Environment Protection and Biodiversity Conservation Act 1999 means that Act ;
- ‘ANPWS’ means the Australian National Parks and Wildlife Service established under section 33 of the Act, now known as Parks Australia;
- ‘Committee’ means the Norfolk Island National Park Advisory Committee;
- ‘Director’ means the Director of National Parks and Wildlife established under the National Parks and Wildlife Conservation Act 1975 and, from the commencement of the Environment Protection and Biodiversity Conservation Act 1999, means the Director of National Parks;
- ‘EPBC Act’ means the Environment Protection and Biodiversity Conservation Act 1999;
- ‘Environment Australia’ is part of the Commonwealth Department of the Environment and Heritage, and includes the Australian National Parks and Wildlife Service established under section 33 of the Act, now known as Parks Australia;

- ‘Gazette’ means the Commonwealth of Australia Gazette;
- ‘Park’ means the Norfolk Island National Park established under section 7 of the Act;
- ‘Parks Australia’ includes the Australian National Parks and Wildlife Service established under section 33 of the Act, and those parts of the Department of the Environment and Heritage bearing that name;
- ‘Plan’ means this Plan of Management in operation under the National Parks and Wildlife Conservation Act 1975 and, from its commencement, the Environment Protection and Biodiversity Conservation Act 1999;
- ‘Regulations’ means any Regulations in force relating to the management of Norfolk Island National Park; and
- ‘Territory’ means the Territory of Norfolk Island.

## **2.2 Aims and Objectives**

### **2.2.1 Purpose of a National Park**

The National Parks and Wildlife Conservation Act 1975 requires the following objectives to be considered when preparing a plan of management for a national park:

- the encouragement and regulation of the appropriate use, appreciation and enjoyment of the park by the public;
- the preservation of the park or reserve in its natural condition and the protection of its special features;
- the protection, conservation and management of wildlife within the park; and
- the protection of the park against damage.

### **2.2.2 Management Context for Norfolk Island National Park**

**AIMS:** To protect and restore populations of native plants and animals, natural ecosystems and ecological processes, and to provide

for appropriate recreational opportunities for Norfolk Island residents and visitors.

## **Background**

The Park is integral to nature conservation on Norfolk Island. Natural habitats which are important for conserving the Island's rare plants and animals also exist outside the Park and Botanic Garden. Some of these areas require active management for them to be useful as wildlife habitat but these areas are outside the scope of this plan, which is confined to the Park.

The Park is also important to the residents of Norfolk Island for recreation and traditional uses and for the Island's tourism industry. These uses need to be balanced with nature conservation objectives.

In accordance with the World Conservation Union (IUCN) Protected Area Management Categories, the Mt Pitt section of the Park is classified as a Category II area (managed mainly for ecosystem conservation and recreation) with ecosystem conservation the primary function. Phillip Island is a Category IV area (managed mainly for conservation through management intervention).

## **Proposed Policies and Actions**

For areas within the Park, the proposed policies and management actions required to meet the above aims are identified in this Plan of Management.

Parks Australia will cooperate with landholders and the Norfolk Island Government to conserve the Island's native plants and animals to the extent that this benefits conservation within the Park.

## **2.3 *Natural Resources***

### **2.3.1 Landscapes**

**AIMS:** To protect the landscape values of the Mt Pitt section of the Park and to provide opportunities for visitors to appreciate the variety of landscapes contained within it; and to restore the landscapes of

Phillip Island to resemble, as much as possible, those that existed prior to 1788.

## **Background**

Mt Pitt and Mt Bates, both within Norfolk Island National Park, are the highest peaks on the Island. They form a dominant element in the landscape and provide spectacular panoramic views. Communication aeriels and associated infrastructure are located at the summit of Mt Pitt.

The Mt Pitt section of Norfolk Island National Park has an area of approximately 460 ha, extending 3km from east to west and 2km from north to south (Map 3). It occupies approximately 12 per cent of the total area of Norfolk Island and includes the highest points on the Island, as well as the majority of remaining native vegetation.

Mt Pitt, Mt Bates and the associated ridges provide excellent viewing platforms for much of the Island and the surrounding sea. The summit of Mt Pitt is a popular site with residents and visitors to the Island. The lookout is a major asset for the tourism industry.

A number of woody weeds have been cleared from around the Captain Cook Monument to reveal views of the northern cliffs. Barbecue and picnic facilities, and safety barriers, have been installed in this area. Signs interpret the panoramas viewed from these locations.

Most of the utilities present within the Park, including electricity and telephone lines, are underground.

After Norfolk Island, Phillip Island, with an area of 190ha, is the next largest island of the Norfolk Group. Phillip Island is located 6km south of Norfolk Island and was declared as an addition to Norfolk Island National Park under both Commonwealth and Norfolk Island legislation in 1996.

The eroded slopes and valleys of Phillip Island with their colourful bare soils provide dramatic landscape elements when viewed either close-up or from afar. As striking as these landscapes are, they represent a degraded ecosystem resulting from overgrazing by introduced herbivores. Some rehabilitation work, involving weeding and planting native species, has been undertaken and pictorial records of change have been made.

## **Policies**

- Any new developments proposed for the Park will be designed and sited to minimise any visual intrusion that those developments may have on the landscape values of the Park, unless otherwise required for the purposes of public safety.
- Any new structures or significant developments proposed for the Park will be referred to the Committee for consideration. The Commonwealth will meet any obligations under the Environment Protection (Impact of Proposals) Act 1974, the Australian Heritage Commission Act 1975 and the Endangered Species Protection Act 1992 and after July 2000 the provisions of the EPBC Act.
- The landscapes of Phillip Island will be modified from their former eroded state by gradually restoring native ecosystems.

## **Management Actions**

### ***Mt Pitt***

Leases and licences may be issued during the life of this Plan for the following purposes:

- the reticulation of electricity and other essential services within the Park; and
- providing radio, telephone and other communication facilities.
- Utilities in the Mt Pitt section of the Park will be placed underground if feasible or otherwise screened with native plantings.

Special views will be maintained and not blocked by the growth of rehabilitation plantings.

### ***Phillip Island***

- During the life of this plan, revegetation of Phillip Island with native species will be continued in accordance with the revised Native Forest Rehabilitation Program for Norfolk Island National Park 1994–1998 (see sections 2.3.4 and 2.3.8 for

details of the strategy). Historical records of Phillip Island will be used as a guide to the rehabilitation program.

- A pictorial record will continue to be made of the changes to Phillip Island landscapes as the rehabilitation program is implemented.

### **2.3.2 Geology and Soils**

**AIMS:** To minimise soil loss and erosion caused or accelerated by human induced landscape changes and to re-establish soil structure on Phillip Island.

#### **Background**

The Mt Pitt-Mt Bates summit area was the focus of the volcanic activity which gave rise to Norfolk Island. Basaltic rock formed through this volcanic activity underlies most of the Park and is the source of the krasnozem (red soils) and skeletal (thin) soils which are found throughout the Mt Pitt section of the Park. Skeletal soils are found along the summit ridge from Mt Pitt to Mt Bates, and from there to the northern coastline. The northern coastline consists of a series of cliffs with little soil formation and/or retention. Krasnozem clays of various classes are found on the eastern and western slopes of this section of the Park.

Norfolk Island soils, being basaltic in origin, are nutrient rich and well structured, but they are also friable and porous. They are prone to mass movement such as soil creep, slumps and landslips if vegetation cover has been degraded or lost, or after a period of particularly heavy rain.

The sparsity of vegetation on Phillip Island, together with the friable nature of the Island's volcanic soils, has resulted in severe erosion. Some of the valleys on the Island have been formed within living memory and soil washed from the Island colours the surrounding sea red after heavy rains. Today there is very little topsoil left on the Island.

Parks Australia has taken a number of actions to reduce the incidence of soil erosion in the Park. The most important of these actions has been the planting of native flora, especially tree species, to stabilise those areas susceptible to mass movement such as slumping. Parks Australia has also carried out minor roadworks, realigned some walking tracks, and installed, replaced and maintained culverts and drainage lines to minimise surface run-off and gullyng.

## **Policies**

- Priority for stabilisation work will be given to areas in the Park prone to soil erosion.
- Re-establishment of soil structure will be assisted in areas that have suffered major soil loss from erosion.
- In undertaking any developments, account will be taken of geological and pedological (soil) factors.

## **Management Actions**

### ***General***

- During maintenance of existing tracks and roads, attention will be given to constructing and maintaining culverts and drainage lines to prevent sub-surface water flow from undermining roads in the Park.
- A track plan designed to minimise soil disturbance in regrowth areas and areas which are particularly prone to soil erosion will be prepared.
- soil movement will be monitored through photopoints and establishment of marker pegs. Soil stabilisation works will be undertaken as required.

### ***Phillip Island***

- The revision of the Native Forest Rehabilitation Strategy for Norfolk Island National Park 1994-1998 will include details of

action to be undertaken to assist in re-establishment of soil profiles on Phillip Island (see sections 2.3.4 and 2.3.8 for details of the Strategy).

### **2.3.3 Water**

AIMS: To maintain the water catchment values of the Park for other users and to manage water, where appropriate, for biodiversity.

#### **Background**

Precipitation on Norfolk Island occurs mainly through rainfall and fog-drip. The Mt Pitt section of the Park forms the major water catchment area for Norfolk Island and it is thought that Mt Pitt and Mt Bates are major recharge areas for Norfolk Island's underground aquifers.

With the exception of the Parks Australia-Norfolk Island Parks and Forestry Service (NIPFS) depot and nursery, there is currently no source of potable water in the Park. A bore at the depot supplies water to the nursery but the water is not of potable standard.

Works to conserve and rehabilitate native plant communities in the Mt Pitt section of the Park have minimised water loss through surface run-off and have reduced soil erosion.

There is no free surface water available on Phillip Island. The lack of vegetation means that rain either quickly permeates through the soil or is lost through surface run-off, exacerbating soil erosion problems and hampering the re-establishment of vegetation.

#### **Policies**

- No artificial surface water interception structures such as dams or weirs will be constructed in the Park except for park management purposes.
- Water conservation principles will be applied to all water use in the Park.

- Persistent chemicals, particularly organo-chlorides, which may compromise the quality of water derived from the Mt Pitt-Mt Bates catchment, will not be approved for use in the Park.

## **Management Actions**

### ***General***

- Where appropriate, rainwater tanks will be included in the design of buildings erected in the Park in order to provide a source of drinking water.

### ***Mt Pitt***

- The watering systems at the nursery will be reviewed with a view to minimising, through improved watering techniques and recycling, the amount of water used.

### ***Phillip Island***

- Sandbags and other appropriate structures will be placed along watercourses on Phillip Island to reduce the velocity and quantity of surface run-off, and to assist in reducing soil loss.
- Consideration will be given to the installation of long-term water collection and storage structures on Phillip Island to provide water for management purposes. All structures will be enclosed to exclude access by wildlife, thereby preventing both accidental drowning and establishment of artificial habitats on which wildlife may become dependent.

## **2.3.4 Flora**

**AIMS:** To conserve and restore as many as possible of Norfolk Island's native plants and plant communities, recreating as closely as possible the state of the vegetation which is thought to have existed prior to European settlement of the Island.

## **Background**

Norfolk Island's vascular flora is well documented and a complete list of the vascular flora has been published as Volume 49 of the Flora of Australia (ABRS, 1994) series. The Island's non-vascular flora (lichens, fungi, algae, mosses, liverworts) has also been well studied, and a number of recent collecting expeditions have been made.

As with other oceanic islands, Norfolk Island's flora displays a high degree of endemism (only occurring in the Territory) and forms plant communities which are unusual in terms of species composition and structure. Unfortunately, the flora present in the Territory today includes a number of introduced species which have become established and, in many cases, are aggressively invading areas of native vegetation.

Gilmore and Helman (1989) made estimates of the distribution and structure of the original vegetation of Norfolk Island. Their results will be used in developing the long-term goals of rehabilitation programs.

The Native Forest Rehabilitation Strategy for Norfolk Island National Park 1994-98 has provided the basis for vegetation management works carried out by Parks Australia in the Mt Pitt section of the Park. Based on the broadscale rehabilitation of weed-infested areas, the Strategy emphasises the removal of weeds and replanting with native species. Native plants existing in weed-infested areas have been left, often thriving when released from competition with weeds. Revision of the Strategy is warranted, particularly to take account of the requirement for rehabilitation of Phillip Island.

There are several small pockets of eucalypts occurring in the Park, but outside the Forestry Zone. These trees may have timber potential. Eucalypts are not native to Norfolk Island.

Seeds and cuttings of native plants are sometimes taken from the Park for management purposes to enable propagation of certain species, e.g. those listed as rare or endangered.

## **Policies**

- Parks Australia will actively manage the vegetation of the Park in accordance with the revised Rehabilitation Strategy and any other plans for the specific management of threatened flora.
- Where economically and/or ecologically viable, non-native species will be removed and replaced with native species.
- The taking of native plant material will be controlled under permit.

## **Management Actions**

### ***General***

- The Native Forest Rehabilitation Strategy for Norfolk Island National Park 1994-1998 will be revised to incorporate new information and to include details of action required in relation to rehabilitation of Phillip Island.
- Vegetation and threatened flora management or recovery plans will be implemented in accordance with the revised Rehabilitation Strategy and the legislative framework within which they were developed and implemented.
- Cleared and replanted areas will be actively managed in order to prevent re-colonisation by weed species until native species are well established. Clearing, rehabilitation and maintenance activities will be staged to ensure they can be met within available resources.

### ***Mt Pitt***

- The taking of native plant material from the Park will be regulated either by prohibition or through the issue of restricted permits (see also sections 2.5.3, 2.5.8 and 2.7.1).
- Subject to favourable economic and ecological evaluation, areas of eucalypts in the Park, other than in the Forestry Zone, will be removed and replanted with native species.

### ***Phillip Island***

- The revision of the Rehabilitation Strategy will include details of action to be undertaken to remove weeds and to rehabilitate Phillip Island with native species (see also sections 2.3.1 and 2.3.8).

### **2.3.5 Fauna**

**AIMS:** Through appropriate research, monitoring and management actions, to maintain, enhance and conserve the diversity of fauna native to Norfolk Island.

Descriptions of Norfolk Island fauna are found in The Norfolk Island Environment Book (Jurd, 1989) and other publications. Further information is provided in sections on feral animal and threatened species management in this Plan of Management.

### ***Birds***

The most visible components of Norfolk Island's fauna are the bird species which nest on the islands and islets in the Norfolk Group. For management purposes the birds can be classified broadly into the following groups, although some species may be represented in more than one group:

- resident land birds and freshwater species;
- breeding seabirds;
- migratory birds; and
- vagrants.

The resident land birds are restricted to Norfolk and Phillip Islands and are therefore totally dependent on the resources of the Islands for their continued survival. It is these species which are most at risk from habitat destruction and from competition or predation by introduced species.

The seabirds which nest or roost on the Islands face similar threats to the land birds but range widely for food. The effective conservation of these species also requires sound fisheries management and marine

pollution control in the waters surrounding Norfolk Island. Migratory species also require effective conservation efforts in the countries to which they migrate and through which they pass during migration.

A number of the species of seabirds which nest on Phillip Island are subject to agreements which Australia has entered into with the Governments of Japan and the People's Republic of China. The (Norfolk Island) Migratory Birds Act 1980 gives effect to those agreements.

The following species of seabirds which inhabit Norfolk Island, and particularly Phillip Island, require special management consideration for the reasons given:

- Providence Petrel (*Pterodroma solandri*) — breeds only on Lord Howe Island and Phillip Island, since being exterminated on Norfolk Island early in the First Settlement;
- Kermadec Petrel (*Pterodroma neglecta*) — breeds only on Kermadec Island, Pitcairn Island, Easter Island, Lord Howe Island and the Norfolk Group;
- White-necked Petrel (*Pterodroma cervicalis*) — is restricted to the Kermadec Group and Phillip Island;
- Australasian Gannet (*Morus serrator*) — Phillip Island is the northern-most breeding ground of this bird;
- Red-tailed Tropicbird (*Phaethon rubricauda roseotincta*) — Phillip Island has one of the largest breeding populations in Australia;
- Whale Bird (*Sterna fuscata*) — Parks Australia surveys suggest that egg harvesting activities may affect populations of the bird; and
- Grey Ternlet (*Procelsterna albivittata albivittata*) — numbers are reported to have decreased since the 1980s.

The effects of the revegetation of Phillip Island on nesting seabirds are likely to vary for different species. Increased vegetation cover should not, for a considerable time at least, significantly limit breeding habitat. Nesting Wedge-tailed Shearwaters or Ghostbirds (*Puffinus pacificus*) are known to become entangled in Kikuyu. Therefore this grass should be excluded from areas used by ground-nesting seabirds.

### ***Other Vertebrates***

The only native mammals which have been recorded from Norfolk Island are two species of bats — Gould's Wattled Bat (*Chalinolobus gouldii*) and the Norfolk Island Free-tail Bat (*Mormopterus norfolkensis*, formerly known as *Tadarida norfolkensis*). These two species are now thought to be extinct on Norfolk Island, although both are found on the mainland of Australia.

The only two reptile species found in the Norfolk Group, *Christinus guentheri* (a gecko) and *Pseudemoia lichenigera* (a skink), are threatened with extinction (Cogger et al, 1993). Both species are considered extinct on Norfolk Island but still occur on Phillip Island, Nepean Island and the offshore islets. Geckos on Phillip Island have been recorded taking refuge in a soft-drink can at night and dying when the can is heated by the sun during the day.

Amphibians do not occur on Norfolk Island and only two species of native freshwater fish, the Short-finned Eel (*Anguilla australis*) and the Long-finned Eel (*A. reinhardti*) have been recorded there.

### ***Invertebrates***

Research on Norfolk Island invertebrate fauna sponsored by Parks Australia has been limited to the production of an annotated list of wasps and bees recorded from Norfolk and Phillip Islands (Naumann, 1990). Studies indicate Norfolk Island has a rich native invertebrate fauna which requires further study.

Other than the marine species commonly seen around Norfolk's shores, one freshwater crab and one land crab species still survive. The freshwater crab *Amarinus lacustris* is about the size of a small fingernail, and is often encountered in streams. The Little Nipper Land Crab (*Geograpsus greyi*) is larger but uncommon.

Land snails and other molluscs fulfil an important role in nutrient cycling and may be important dietary elements for land birds. It is possible that the introduction of the Polynesian Rat (*Rattus exulans*) may have led to the extinction of some of Norfolk Island's land

molluscs before European settlement of the Island. If Black Rats (*Rattus rattus*) were introduced to the Island as late as 1943, as is thought possible, it is likely that there has been a further decline in land mollusc populations. Further research is required to determine the possible impacts of rats on this group of animals, and suitable management options.

## **Policies**

- Conservation of Norfolk Island's native fauna will be promoted through the control of introduced and naturalised predators and competitors, re-establishment of native vegetation and restriction of visitor access to sensitive sites.
- Habitat for colonies of seabird species on Phillip Island and other parts of the Park, all of which are subject to international treaties, will be developed and maintained.
- Consideration will be given to the reintroduction of species or subspecies which have become locally extinct.

## **Management Actions**

### ***General***

- Strategies for habitat rehabilitation and threatened species management for the Park will be prepared and implemented (see also sections 2.3.1, 2.3.4 and 2.3.8).
- Kikuyu will be actively removed and excluded from areas used by ground-nesting seabirds.
- The timing and nature of maintenance works within the Park, e.g. works on Mt Pitt Road and Duncombe Bay Road, will be planned so as to minimise disturbance to birds, particularly when they are nesting. Restriction of visitor access to certain areas will be considered where appropriate.
- Some habitat manipulation to enhance prospects for particular seabird species may be undertaken.

### ***Phillip Island***

- Vegetation rehabilitation work on Phillip Island will be designed to expand the variety of native vegetation types present on the Island, thereby providing a diversity of habitats to assist in improving the conservation status of native fauna.
- A seabird monitoring program will be designed and implemented for Phillip Island to provide information for management. This program will include monitoring the response of breeding seabirds to the changing vegetation structure on the Island and the effect of visitor disturbance on breeding success. Emphasis will be placed on species identified as requiring special management needs.

### **2.3.6 Management of Introduced Species**

**AIMS:** To minimise the spread and impact of disease and introduced species on native flora and fauna.

#### **Background**

Either deliberately or accidentally, humans have introduced to Norfolk Island a wide range of plants and animals that had not existed there previously. Many were well suited to Norfolk Island's environment and have thrived, often to the detriment of native species.

Many of the weeds and feral animals present on Norfolk Island do not occur on Phillip Island, due to the latter's relative isolation. The absence of such introduced species has allowed populations of some native species which have become locally extinct on Norfolk Island to survive on Phillip Island.

#### ***Weeds***

The first Plan for the Park identified weed control as a priority task. A research program was initiated by Parks Australia to identify the most serious weeds on Norfolk Island and examine possible options for controlling them. A weed control program was subsequently developed and formed the basis of the actions proposed in the Rehabilitation Strategy for the Mt Pitt section of the Park. The

program was based on the broadscale treatment and rehabilitation of weed-infested areas. This consisted of removing weeds and replanting with native species. Several biological control agents have been released on Norfolk Island to control introduced plants.

A number of aggressive woody weeds are present on Norfolk Island and require considerable resources for their control. Some of these weeds, such as African Olive (*Olea europaea africana*), also occur on Phillip Island where their control is even more difficult. Actions taken now to prevent new weeds from becoming established on Phillip Island will lead to significant savings in terms of resources which would otherwise have to be committed in the future to eradicate infestations.

Parks Australia has produced a weed control manual for Norfolk Island which is available to the general public. Developed as a user's guide, it lists the herbicides currently used for controlling the most troublesome exotic woody plant species within the Park and describes the most appropriate control methods and application equipment. The manual provides a reference guide for use by staff within the Park, weed control contractors and landholders on Norfolk Island.

### ***Feral Animals***

It is assumed that the Polynesian Rat (*Rattus exulans*) was introduced by Polynesian visitors some thousand years ago. The Black Rat (*Rattus rattus*) was introduced later, possibly as late as 1943, and is considered to be the most destructive predator on Norfolk Island today. The Black Rat is implicated in the decline of Norfolk Island's most endangered land birds and is thought to also impact on several species of Norfolk Island's threatened plants. It is probable that invertebrates such as land molluscs have also fallen victim to this species. Both terrestrial reptile species that occurred previously on Norfolk Island are now extinct due to rat predation.

An extensive rat control program has been operating since 1992 with a network of bait stations established throughout the Park. The bait stations and the associated system of access tracks need to be serviced regularly.

A number of introduced bird species such as the Common Starling (*Sternus vulgaris*) have displaced the native insect-feeders through

competition for the same prey. Starlings also compete with the Green Parrot and owls for nesting sites, requiring their active removal by Park staff.

The Crimson Rosella (*Platycercus elegans*), known locally as the Red Parrot, is a direct competitor of the endangered Green Parrot. It eats similar foods and has similar nesting requirements. It is also more aggressive than the native bird species. A captive-breeding program has been established to enable Green Parrots to breed in the absence of competition from Red Parrots and the threat of predation. While the program has had some success to date, insufficient birds have been bred to augment the wild population.

Feral and domestic cats (*Felis catus*) have been observed hunting native birds. The cats are controlled within the Park through trapping and removal. Parks Australia also subsidises a cat de-sexing program. National priorities for cat control are defined in the Threat Abatement Plan for Predation by Feral Cats (Environment Australia, 1999). The Norfolk Island Green Parrot is listed in the Threat Abatement Plan as one of the species for which feral cats are a known or perceived threat.

Feral cats and rats, not present on Phillip Island, would represent a serious threat to nesting seabirds and other native fauna on Phillip Island, if they reached there. Exotic invertebrates from Norfolk Island could damage the valuable invertebrate fauna of Phillip Island.

Rabbits, which for many decades prevented the regeneration of vegetation on Phillip Island, have been successfully eradicated by Parks Australia and Norfolk Island residents.

Colonies of feral honey bees frequently occupy tree hollows which might otherwise be used by nesting birds. Hives found in the Park are removed where practicable. A 1993 invasion by the Asian Paper Wasp (*Polistes chinensis*) poses an unknown problem to flora, fauna and visitors to the Park.

Due to its largely predator-free and uninhabited condition, Phillip Island offers an excellent opportunity to extend the efforts being made to conserve Norfolk Island's threatened plants and animals to an area outside the main island.

## ***Pathogens***

Psittacine Circovirus Disease (PCD), commonly known as ‘parrot beak and feather disease’, causes excessive feather loss, general decline in health and, in some cases, death. PCD was identified in 1995 as being widespread in the Norfolk Island Green Parrot population and a major threat to its survival. An epidemic which killed many parrots in the mid-1970s was probably PCD.

The root rot fungus *Phellinus noxius* has been identified as being the principal pathogen causing dieback of Norfolk Island Pine (*Araucaria heterophylla*) and other species of plants on Norfolk Island. *P. noxius* may have a significant indirect effect on bird habitat throughout the Park. A range of measures to limit the spread of *P. noxius* have been implemented.

It is not known whether or not *P. noxius* is active on Phillip Island, nor is it known whether there are any other wildlife pathogens present on Norfolk Island which are not currently present on Phillip Island. Wildlife diseases, particularly plant diseases, could seriously hamper efforts to revegetate Phillip Island.

## **Policies**

- The revised Rehabilitation Strategy (discussed in more detail in section 2.3.8) will provide the basis for most weed control activities in the Park, consistent with the National Weeds Strategy.
- Priority will be given to controlling, or where feasible eradicating, potential problem plant species that exist in only small populations at present (e.g. Kikuyu on Phillip Island).
- Actions will be put in place to assist in maintaining the disease-free and predator/competitor-free status of Phillip Island.
- A feral animal management strategy will provide the basis for feral animal control policies and activities, consistent with relevant threat abatement plans.
- Parks Australia will cooperate with the Norfolk Island Government agencies in identifying potential weed species and

informing nursery suppliers and the community about these species.

- Any proposals for biological control of weeds or animal pests in the Park will involve appropriate community consultation and Norfolk Island Government approval.

## **Management Actions**

### ***General***

- A feral animal management strategy will be prepared to detail activities aimed at controlling feral animals within the Park and, where required for effectiveness, outside the boundaries of the Park. The Plan will be consistent with management actions for feral animals which are identified in recovery plans for threatened species.
- Monitoring and surveillance for potential threatening species in the Park will be carried out on a routine basis, particularly on Phillip Island.
- A rat control program will be maintained in as much of the Mt Pitt section of the Park as possible. The baits used will have a record of low or no secondary poisoning, to protect owls and other non-target species.
- If necessary, Kikuyu around Shearwater colonies will be actively controlled.
- A contingency plan will be developed to deal with new outbreaks of threatening species, especially on Phillip Island, at short notice and before they can become established.
- Weed control activities will be carried out in accordance with the provisions of the weed control manual. The manual will be reviewed regularly and as necessary to incorporate new information.
- Plant pathogens, like *Phellinus noxius*, will be controlled with best-practice techniques.
- Parks Australia will continue to subsidise cat-desexing clinics.

### *Phillip Island*

- Quarantine guidelines will be established to assist in preventing colonisation of Phillip Island by unwanted introduced species. Visitors to Phillip Island will be encouraged to take suitable precautions against the introduction of feral animals, weeds and pathogens.

### **2.3.7 Management of Threatened Species**

**AIMS:** To halt the extinction of species native to Norfolk Island and ensure that species threatened with extinction have their conservation status improved during the life of this Plan.

### **Background**

A large proportion of the plant and animal species native to Norfolk Island are either extinct or facing serious threats to their existence. Parks Australia has dedicated significant resources to ensuring the long-term survival of a number of these species.

The (Commonwealth) Endangered Species Protection Act 1992 (ESP Act) has come into effect since the last Plan of Management was written. The ESP Act provides that the Commonwealth must prepare recovery plans and threat abatement plans for listed species, ecological communities and key threatening processes on Commonwealth land or waters. These plans must be prepared within prescribed time limits.

The ESP Act also obliges the Commonwealth to prepare inventories of all listed native species and communities present on Commonwealth land or waters.

The Norfolk Island National Park is considered to be an area within the context of the ESP Act. The Commonwealth will consult with the Norfolk Island Government on recovery plans for endangered species and communities found outside Commonwealth lands. Following the commencement of the EPBC Act and repeal of the ESP Act (no later than 16 July 2000) management of threatened species will be in

accordance with the EPBC Act which substantially preserves the relevant provisions of the ESP Act (such as listing of species, communities and threatening processes) and recovery plans.

### ***Flora***

At least 42 plant species have been identified as being threatened in the Territory of Norfolk Island (Sykes and Atkinson, 1988). Although none are currently listed under the ESP Act, research indicates that they may warrant being classified as either endangered or vulnerable. This research is continuing and may lead to species being nominated for listing.

The establishment and development of the joint Parks Australia-NIPFS nursery complex has provided an excellent facility to propagate rare and threatened plants. Seeds and other material for propagation in the nursery have been collected by staff of Parks Australia and the NIPFS. Seeds and cuttings, including some of the rarer species, have also been donated by residents of Norfolk Island. Parks Australia has obtained specialist advice from local people and staff of the Australian National Botanic Gardens (ANBG) on appropriate means of propagating native plant material, and has been successful in growing many species. There are, however, a few species which have not yet been successfully propagated.

Plants propagated in the nursery are used in the Park rehabilitation programs and for NIPFS operations. A proportion of the plants is also sold to the public.

### ***Fauna***

The Action Plan for Australian Birds (Garnett, 1992) identified the following Norfolk Island birds as having endangered or vulnerable status:

Zosterops albogularis	White-breasted White-eye
Ninox novaeseelandiae undulata	Norfolk Island Morepork or Boobook Owl

<i>Cyanoramphus novaezelandiae</i> <i>cookii</i>	Green Parrot or Kakariki (Norfolk Island subspecies)
<i>Turdus poliocephalus poliocephalus</i>	Island Thrush or Grey-headed Blackbird (Norfolk Island subspecies)
<i>Petroica multicolor multicolor</i>	Scarlet Robin (Norfolk Island subspecies)
<i>Pachycephala pectoralis</i> <i>xanthoprocta</i>	Golden Whistler (Norfolk Island subspecies)

All of these taxa but the Golden Whistler are also listed in Schedule 1 (endangered and vulnerable species) of the ESP Act — the Morepork and the Green Parrot are currently listed as endangered while the remaining three are currently listed as vulnerable.

Recovery plans have been prepared for the Morepork and Norfolk Island Green Parrot. Implementation of the interim Green Parrot Recovery Plans (involving captive and wild breeding programs) in particular has required the dedication of a large proportion of the resources of Parks Australia (Norfolk Island) over several years. However, recovery plan actions, such as rat and feral cat control, together with habitat rehabilitation efforts in the Park, have also benefited the survival prospects of several other species.

The Action Plan for Australian Reptiles (Cogger et al., 1993) lists the two species of terrestrial reptiles found in the Norfolk Group, the gecko *Christinus guentheri*, and the skink *Pseudemoia lichenigera*, as being vulnerable to extinction. Both species appear to have disappeared from Norfolk Island but still occur on Phillip Island and other islands and islets in the Norfolk Group. The action plan lists a number of measures to improve the species conservation status.

The absence of predators on Phillip Island provides an opportunity for the Island to be used as a sanctuary for various endangered species, including the Green Parrot.

## **Policies**

- Parks Australia will endeavour to improve the conservation status of Norfolk Island's rare and threatened flora in the Park.
- In situ protection of important threatened plant populations within the Park will be pursued wherever possible.
- Action will be taken to ensure the continued survival of viable populations of *Christinus guentheri* and *Pseudemoia lichenigera* on Phillip Island.

## **Management Actions**

### ***General***

- Recovery plans for the Norfolk Island Green Parrot and Morepork will continue to be implemented in the Park and revised as necessary.
- Consistent with the Green Parrot Recovery Plan, the efficiency of the captive breeding program will be evaluated. Depending on the outcome of the evaluation, the program may be modified.
- Where possible, in situ management of populations of Norfolk Island's rare and threatened plants will be pursued in the Park. Action taken may include maintenance of fences to exclude grazing animals, and weed, cat and rat control. Visitor access to some areas may be restricted where necessary to assist conservation activities.
- For those species for which it is technically possible, Norfolk Island's rare and threatened plants will be artificially propagated from a wide genetic base, to supplement wild populations. Propagated stock will be included in rehabilitation programs within the Park as appropriate and excess stock will be sold to the public to encourage planting native species outside reserves.

- Subject to the establishment of appropriate environmental conditions, some species which are locally extinct on Phillip Island may be re-introduced.
- Research will be undertaken to investigate the reproductive biology and habitat requirements needed to propagate threatened Norfolk Island plants, particularly those species which have so far proven difficult to propagate.
- A series of low-cost leaflets will be produced with information to help people identify and conserve the Island's rare plants.
- Research will be undertaken on the ecology and conservation status of Norfolk Island's invertebrate fauna and non-vascular flora, with the findings to be incorporated into appropriate rehabilitation and recovery programs.

### **2.3.8 Restoration of Natural Ecosystems**

**AIMS:** To re-establish, through habitat rehabilitation and species reintroduction, natural interactions between plants, animals and their environment.

#### **Background**

The long-term conservation of Norfolk Island's unique flora and fauna will ultimately depend on the conservation or re-creation of environments which reflect those that existed prior to the arrival of humans. Only then is there likely to be some level of self-sustainability of natural populations, even though threatening processes are likely to be ever-present.

Several of the policies and proposed management actions detailed in earlier parts of this Plan are consistent with the goal of restoring natural ecosystems. The destruction of the vegetation of Phillip Island, through past overgrazing by pigs, goats and rabbits, has led to a breakdown of many of the original ecological processes on the Island. Perhaps the most important resource lost from Phillip Island is its soil, particularly as attempts to re-establish the ecological processes which

once existed there rely most heavily on the presence of a substrate which can support vegetative growth.

Aspects relating to soil stabilisation are covered in sections 2.3.1 and 2.3.2.

Due to the much greater level of natural ecosystem degradation evident on Phillip Island compared to the rest of the Park, Phillip Island requires a much more comprehensive rehabilitation program.

For the Mt Pitt section of the Park, where the original soil structure remains largely intact, there has been an ongoing program over several years of rehabilitating significantly altered habitats with native plant species to re-create previous naturally occurring habitats. This in turn is benefiting threatened bird populations.

In a healthy forest ecosystem, trees provide a buffer to various environmental variables. They reduce the velocity of wind, salt spray and rain, decrease the amount of direct sunlight reaching the soil, increase moisture retention and moderate temperature changes. On Phillip Island the vegetation over most of the Island is too sparse to provide these functions. The reintroduction of native fauna to Phillip Island is dependent on regeneration of the Island's vegetation.

Fortunately, some pockets of vegetation survive on Phillip Island and these act as refuges for flora and fauna native to the Island. Since the removal of rabbits, and with human assistance, these pockets are gradually expanding.

## **Policies**

- Parks Australia will work towards re-establishment of natural ecosystems in the Park, particularly Phillip Island, through mitigation or reversal of any degrading processes still operating in the Park, including:
  - modifying the physical environment to favour native plant growth;
  - revegetating areas with appropriate native plants; and

- reintroducing ecologically important species which have been lost, e.g. Providence Petrels to the Mt Pitt section of the Park.
- Revegetation of Phillip Island, where feasible and appropriate, will concentrate on creating habitats suitable for re-introducing endangered land birds currently restricted to Norfolk Island.
- As appropriate, action will be taken to maintain and/or re-create habitats for native land birds extant on Phillip Island or which may be introduced to Phillip Island.

## **Management Actions**

### ***General***

- Restoration of natural ecosystems in the Norfolk Island National Park will be guided by the revised Rehabilitation Strategy, together with recovery plans prepared for individual species or groups of species.

### ***Phillip Island***

- The habitat requirements of all native and migratory species of seabirds known to nest on Phillip Island will be defined.

**The revision of the Rehabilitation Strategy will include details of action to be undertaken to re-establish soil profiles on Phillip Island (see also sections 2.3.1 and 2.3.4) and maintain habitat for both ground and tree nesting seabirds.**

## **2.4 Cultural Heritage**

**AIMS:** To identify, preserve and interpret the historical features of the Park.

## **Background**

Although the principal foci of early settlements on Norfolk Island were in the lowlands and, more recently, at Burnt Pine, the area which is now the Mt Pitt section of the Park has been the site of a number of significant events in the human history of the Island, including its discovery by Europeans and its defence during the 1941–1945 war in the Pacific.

A survey of the historic resources of the Mt Pitt section of the Park has been conducted for Parks Australia by the Norfolk Island Historical Society. The survey identified a number of sites and objects which are of historical significance and require active management or interpretation. Some conservation work on these sites has commenced.

Few sites or objects of historical significance have been identified on Phillip Island.

Interpretation of the history of the Park has, to date, been largely limited to signs and the Captain Cook Monument.

## **Policies**

- As appropriate, and as resources permit, the sites and remains of structures from early settlements which exist within the boundaries of the Park will be conserved and, where possible, their location and significance interpreted.

## **Management Actions**

### ***General***

- Parks Australia will seek the services of people with appropriate expertise to advise on the best methods to preserve historical relics found within the Park.
- Where appropriate and in accordance with an interpretation strategy (see section 2.5.9), signs and written material will be produced to interpret aspects of cultural significance in the Park.

- Further archaeological investigation at sites of early human activity within the Park will be considered.

## **2.5 Promotion and Use of the Park**

### **2.5.1 Zoning**

**AIMS:** To manage the Park in line with a zoning scheme that outlines the activities and kinds of development that are appropriate for different parts of the Park.

#### **Background**

Section 11(9) of the NPWC Act and sections 367 (1b) and 367(1c) of the EPBC Act provide that a plan of management may divide a park or reserve into zones and sets out the condition under which each zone will be kept and maintained.

Zoning is an important technique to define ways of managing parts of a park. Zoning is one way of ensuring management is focussed and problems of conflict of use can be addressed through separation of such conflicts in space (between zones) or in time (within zones). Each zone has a set of management strategies which are intended to achieve a main objective or set of objectives: in some cases, conservation may be most important while, in others, conservation and recreation objectives may be combined.

#### **Policies**

- Using management zones allows for optimisation of opportunities for endangered species and conservation management, education and interpretation, recreation, scientific research, and commercial opportunities including tourism and timber production.

- The zones will reflect current land use and may identify opportunities to preserve important ecological components such as habitat corridors, e.g. within the Forestry Zone, or food resources for endangered species.

## **Management Actions**

The management of the Park will continue to be based on three zones. The three zones are:

- **Zone 1, Mt Pitt Zone.** This zone is the most heavily visited part of the Park. The network of roads, tracks and facilities provides for intensive human use and infrastructure development. Infrastructure development and management aims to provide for and control intensive visitor use within acceptable levels. Development includes management and visitor facilities, and public utilities. The rest of the Zone (generally greater than 5m in from the boundary of roads and car parks) is mainly native forest and the first priority is management for nature conservation and quiet use and enjoyment by visitors. Low impact recreational use may be permitted where this is environmentally sound.
- **Zone 2, Forestry Zone.** The principal uses of this zone are the production of timber and other compatible uses. Some areas of the Forestry Zone have been identified by Davidson, Anderson, and Evans (1994) as having high conservation values. In these latter areas the first priority is management for nature conservation and quiet use and enjoyment by visitors.
- **Zone 3, Phillip Island.** This zone includes a relatively remote area of the Park where the first priority is management for nature conservation and occasional use and enjoyment by visitors. Camping by residents is largely restricted to small accessible areas on the east end of the Island.

While the (Norfolk Island) Planning Act 1996 does not extend to the Park, development work in any zone will only be approved according to procedures which mirror those defined in the Planning Act. Commercial tourism activities in Zone 3 will be based on recommendations of the Committee. Research may be permitted in

each of the zones in accordance with a permit issued under the Park regulations.

## **2.5.2 Recreation**

**AIMS:** To provide for an appropriate range of recreational opportunities for visitors and residents of Norfolk Island.

### **Background**

The types of recreational opportunities appropriate to the Mt Pitt section of the Park are very different from those for Phillip Island. Furthermore, the range of recreational experiences sought by Norfolk Island residents is often very different from those sought by visitors to Norfolk Island.

Visitor surveys of the Park (not including Phillip Island) were conducted in 1985 and 1993-1994 (Griffith University, 1994). The latter survey found that the most common activities included bushwalking, sightseeing, picnicking or barbecuing, photography, nature study and bird watching.

Riding horses is another popular leisure activity which takes place in parts of the Park, including walking tracks. This multi-purpose use of walking tracks has visitor safety implications and requires careful management.

The (Norfolk Island) Norfolk Island National Park and Norfolk Island Botanic Garden Regulations 1988 generally prohibit camping in the Park. In discussions leading up to the inclusion of Phillip Island in the Park, it was agreed that camping by residents would be allowed to continue. The mechanism to allow this under the Regulations needs to be specified.

The main uses of Phillip Island by Norfolk Island residents are fishing, camping, harvesting Whale Bird eggs (discussed in more detail in section 2.5.3), as well as for artistic, other wildlife, and general interest pursuits. Due to its open and rugged nature, it is anticipated that a demand may develop for the use of Phillip Island by

local and visiting groups pursuing adventure sports such as rock-climbing, hang-gliding, abseiling and base-jumping. These land-based activities have been discouraged by the Norfolk Island Government as rescue missions place the lives of other people at risk, assuming the weather and sea conditions will allow a rescue attempt.

## **Policies**

- Horse riding will be permitted on public access roads, Red Road, Mt Bates Track, Bridle Track, Woods Track and plantation tracks in the Forestry Zone.
- Traditional uses of Phillip Island by the residents of Norfolk Island, such as fishing and camping, will continue where they do not compromise the nature conservation values of the Island.
- On the grounds of safety, recreational and commercial use of Phillip Island by visitors will not be encouraged. Specifically, recreational climbing, hang-gliding, abseiling and base-jumping will not be permitted on Phillip Island.

## **Management Actions**

### ***General***

- Information available on the range of opportunities for visitors to the Park will be regularly upgraded.
- Visitor use of the Park, expectations and experiences will continue to be monitored, and management practices will be adjusted to suit public demand where necessary or desirable. Formal visitor surveys will be undertaken at least once every five years and measures will be taken to protect Park values if usage levels cause deterioration of those values.
- Permits may be issued for limited camping under appropriate conditions by special groups such as the Girl Guides.

- Interpretation of the Park and its features will be implemented and conducted in accordance with an interpretation strategy.

### ***Phillip Island***

- Given the potential dangers of recreation on Phillip Island, guidelines will be developed to cover recreational use of this part of the Park.

Other relevant sections of this Plan are sections 2.5.1 and 2.5.4.

## **2.5.3 Traditional Use of Wild Resources**

**AIMS:** To permit appropriate harvesting of resources traditionally sourced in the area now covered by the Park while ensuring the protection and conservation of the natural values of the Park.

## **Background**

### ***Plants***

Traditionally, natural resources such as pine knots and leaves of Norfolk Island Palm (*Rhopalostylis baueri*), *Cordyline oblecta*, and Mountain Rush (*Freycinetia baueriana*), were taken from the former Mt Pitt Reserve for craft, cultural and other purposes.

Fresh fruit is a limited and highly valued resource only available seasonally on the Island. Island residents use the Park as a source of fruit such as guava (*Psidium cattleianum cattleianum*) and lemon. While guava is being poisoned and removed across the Park, an area has been set aside at Palm Glen where the guava is retained and the fruit is able to be collected. Guava stems from clearing operations are made available to the public for use as garden stakes or fencing. There are currently no restrictions on people collecting lemons from the Park.

## ***Birds***

Historically, the eggs of the Whale Bird (*Sterna fuscata*) have been harvested as a food resource from Phillip Island. This practice still continues. While *S. fuscata* is not endangered worldwide, the annual harvest may be affecting the Phillip Island population.

Apart from the number of eggs taken, studies indicate that the effect of Whale Bird egg harvesting on the overall population is linked to both the timing of the harvest and its duration. Since 1977, a set season for Whale Bird egg harvesting has been implemented. The season was modified in 1985.

## **Policies**

- Collection of native plant materials from the Park for specified purposes will continue subject to conditions designed to protect the conservation values of the Park.
- Collection of guava and lemons from the Park will be permitted.
- Outside the approved activities specified above, no collection of native vegetation from the Park will be allowed without a written permit.
- Collection of Whale Bird eggs from Phillip Island will be allowed to continue during a harvesting season declared under the (Norfolk Island) Birds Protection Act 1913.
- Information on any impacts of the egg harvest will be communicated to the public and used to review management arrangements.

## **Management Actions**

### ***Mt Pitt***

- Parks Australia will implement and maintain a permit system, including relevant guidelines, covering the collection of native plant materials from the Park for craft and cultural purposes.

- Where possible, plants used in traditional crafts will be propagated in the Forestry Zone.
- Guava stems and wood from African Olive trees removed from the Park in weed clearing operations may be made available to the public.

### ***Phillip Island***

- A long-term monitoring program for Whale Bird populations on Phillip Island will be designed and implemented based on data collected in the 1980s.
- During the life of this Plan, the outcomes of the Whale Bird monitoring program will be used to assess the impact of the harvest on the population.
- Other relevant sections of this Plan are section 2.3.4 — Flora; section 2.5.1 — Forestry Zone; and section 2.7.1 — Scientific Research.

### **2.5.4 Access**

**AIMS:** To provide for the appropriate use, appreciation and enjoyment of the Park without compromising nature conservation values and visitor safety.

### **Background**

A national park is a place for public enjoyment and recreation. It is also a place for the conservation of wildlife and other natural resources. A balance needs to be struck between providing for each of these uses.

As well as being important to the Territory's tourism industry, the Park is important to the residents of Norfolk Island who use it to seek solitude and as a place for recreation and traditional activities.

On the whole, there does not appear to be a major problem with overcrowding in any of the areas covered by this Plan. There are, however, areas within the Park which are so sensitive that, without appropriate management, they could be damaged by even a small number of visitors.

There are some tracks in the Mt Pitt section of the Park which have not been formally signposted or otherwise drawn to the attention of tourists, yet are still used by local residents. Management tracks in the Park, such as those established for feral animal control, are also suitable for occasional use by locals but may not be suitable for groups of tourists.

Access to Phillip Island is by boat or, when available, by helicopter for management purposes. From the landing place, people climb a steep cliff with the assistance of fixed ropes.

Residents of Norfolk Island have traditionally camped for short periods at the east end of Phillip Island and at the Fishing Club's hut at Dar Stool (adjacent to the Phillip Island section of the Park). While camping is generally prohibited in the Park, this traditional activity has been maintained in an agreement with the Norfolk Island Government. Safety and the difficulty of rescuing injured and stranded people affect all activities on Phillip Island, more so when the stay is prolonged.

## **Policies**

- Safety of visitors to the Park will remain a high management priority.
- Visitor pressures will be confined as far as possible to parts of the Park which are able to cope with them best. Management guidelines for each zone of the Park (see section 2.5.1) will assist in delimiting these areas and concentrating use in appropriate areas.

## **Management Actions**

### ***General***

- Commercial operations will require and be subject to the conditions of an annual permit.
- Parks Australia will maintain a permitting system and permit register. Commercial permits will be issued on a financial year basis.
- All reasonable necessary steps will be taken to ensure the safety of Park visitors, including but not limited to the erection of safety signs and, where necessary, additional measures such as erection of safety barriers and closure of areas of the Park.
- Tracks that are considered to be unsafe, or for which access is likely to compromise Park programs, will be closed to the public.
- Motorcycles and four-wheel drive vehicles will be permitted only on public access roads in the Park. Only emergency service and management vehicles will be permitted to use other tracks within the Park. A limited number of four-wheel drive tours will be permitted to operate in the Forestry Zone.
- Permits may be issued for a limited number of motorcycle events in the Forestry Zone each year, subject to conditions relating to safety, environmental damage and impact on endangered species.
- Liaison will be maintained with the Norfolk Island Tourist Board on visitor management issues of common interest.

### ***Mt Pitt***

- Access and facilities at Palm Glen will be enhanced to reduce pressure on other sites such as the Captain Cook Monument. Work to be undertaken will include road upgrading and provision of toilets and picnicking facilities.

- During the life of this Plan, areas such as The Cord and King Fern Valley track will not be upgraded but access to these areas will be kept at a minimum safe standard.

### ***Phillip Island***

- Access by Norfolk Island residents will be allowed to most of Phillip Island, with possible minor restrictions for the purpose of specific protection of flora and fauna, or for public safety. Visitors to Norfolk Island will not be encouraged to visit Phillip Island, as landing, track, and toilet facilities are unsuitable for the general public. Where visitors do wish to access the Island, they will be encouraged to seek the assistance of, and be accompanied by, a local resident with knowledge of Phillip Island access and conditions.
- Requests by individuals to take special interest groups for regular or frequent tours of Phillip Island will be considered by the Committee. The Committee will develop guidelines for such proposals.
- While camping is generally prohibited in the Park, Parks Australia will develop and maintain a simple permit system covering camping on Phillip Island for Norfolk Island residents or scientific permit holders. Permits will, inter alia, specify any conditions necessary to prevent damage to the natural values of the Island and to ensure the safety of its visitors.

### **2.5.5 Roads and Tracks**

**AIMS:** To provide appropriate road and track infrastructure within the Park to enable access and recreational opportunities, while reducing ongoing maintenance costs, minimising disturbance to flora and fauna, and ensuring visitor safety.

## **Background**

### ***Roads***

Apart from the bitumen road to the summit of Mt Pitt, most roads in the Park are unsealed. Dirt roads are currently graded and resurfaced three times each year to maintain them at a standard suitable for two-wheel drive vehicles in dry weather. During wet weather, some roads may be closed to avoid accidents and to prevent damage to the road surfaces.

Sealing roads involves a large initial capital outlay, but reduces ongoing maintenance costs. Sealing also provides better all-weather access to the Park and improves public safety.

In mid-1998 heavy rains saturated the soils on Mt Pitt and the fill underlying several sections of Mt Pitt Road began to move down-slope, necessitating the closure of the road to normal traffic. The damaged sections of the road need to be reconstructed and resurfaced. Associated damage was incurred on Duncombe Bay and Selwyn Pine Roads. These two roads have been temporarily repaired. Some \$3.5m was allocated in the 1999-2000 budget for repairs and improvements to the three roads. The works need to take into account the requirements of the (Commonwealth) Environment Protection (Impact of Proposals) Act 1974 and the (Commonwealth) Australian Heritage Commission Act 1975. As part of this process, a number of options for the Mt Pitt roadworks were assessed.

### ***Tracks***

There are a number of signposted walking tracks in the Mt Pitt section of the Park (Map 3). Most are in good condition and require little maintenance but may be slippery when wet. Grades vary from easy to steep and distances vary from 200 metres to 5km return. Walks are signposted at the start of each walk and at junctions of major tracks.

Since preparation of the previous management plan a number of tracks were closed because they presented a danger to visitors or because they impacted on sensitive areas of the Park. Other tracks have since

been signposted, and steps and handrails provided, to increase visitor safety.

Some tracks on which horse riding is permitted have been widened to reduce conflicts between riders and walkers. Steps which are suitable for horses and pedestrians have been installed in some of the steeper parts of the Bridle Track.

There are many parts of the Park which are inaccessible to disabled people, largely determined by steep gradients. A track designed for wheelchair access was installed at Palm Glen in 1991.

The sparse vegetation on Phillip Island provides easy access to the flatter parts of the Island and trampling can hamper habitat rehabilitation efforts. A track plan is a high priority because, as time passes, informal tracks, which may be in undesirable locations, become better defined and people's behaviour patterns become harder to change.

## **Policies**

- Vehicles will only be permitted on gazetted roads in the Park. The term 'vehicles' includes bicycles.
- Tracks within the Park will be developed and maintained at standards appropriate for meeting user and safety requirements.
- A track strategy will be developed during the life of the plan. The track system will be rationalised and loop tracks investigated.

## **Management Actions**

### ***General***

- Road and track development and maintenance in the Park will be undertaken in accordance with section 2.9.1 and an annual works plan.

- As appropriate and after assessment by engineers, vehicle weight and size limits will be proclaimed for each road in the Park.
- Unsealed roads will be inspected during wet weather and closed to vehicular traffic during periods when they are found to be unsafe.
- Walking tracks in the Park will be maintained or upgraded using appropriate methods and surfacing, with steps and handrails provided where considered necessary to ensure visitor safety. Where appropriate, a suitable surface will be developed on tracks designated for horse-riding.
- It is not envisaged that the South Spur Track will be upgraded during the life of the Plan.

#### ***Mt Pitt***

- Consideration will be given to the development of a circuit walking track in the Mt Pitt section of the Park.
- Tracks designated for horse and mountain bike riding will be detailed in pamphlets and other material about the Park. They will be maintained in a condition suitable for these uses and marked by appropriate signs.

#### ***Phillip Island***

- Parks Australia will establish a system of preferred tracks and paths on Phillip Island. A map showing the preferred track network will be produced and will be available on Norfolk Island.

### **2.5.6 Facilities**

**AIMS:** To provide and maintain appropriate facilities to meet the needs of visitors to the Park.

## **Background**

Facilities are installed in national parks and other public areas to meet basic visitor needs (such as toilets), for recreation (picnic facilities), for safety or visitor control (barriers and steps), for comfort (seats), and to provide information (signs).

Facilities provided include seats and picnic tables at various locations within the Park, and interpretive signs such as those at the Captain Cook Monument, Hollow Pine and Mt Pitt summit. Barbecues have been installed at the Captain Cook Monument. A list of existing facilities is recorded in Schedule 1.

The general opinion expressed in submissions relating to this Plan is that visitor facilities in the Mt Pitt section of the Park are adequate and should be kept to a minimum. This position was supported by the latest Norfolk Island National Park Visitor Survey (Griffith University, 1994).

As camping is generally prohibited in the Park, camping facilities are not provided.

A policy of 'take out what you take in' has been in practice since the Park was declared and no litter bins are located in the Park.

A track designed for wheelchair access has been installed at Palm Glen. The track is wide, with a gentle gradient and a gravel surface. There are no other facilities in the Park which are specifically designed for wheelchair access.

Some of the tracks in the Park are closed to horse and mountain bike riding. However, if appropriate facilities to secure horses were to be provided, riders could dismount and continue on foot to visit more sensitive areas of the Park.

Accommodation for Park staff emerged as an issue in the late 1990s and the Committee has proposed that staff housing be constructed in the Park.

With the exception of the renovated Parks Australia hut and a private encampment, tracks and climbing ropes, Phillip Island is largely devoid of artificial structures. The Fishing Club's hut is sited on a small islet adjacent to the Phillip Island and is sometimes used as emergency accommodation by local visitors.

## **Policies**

- All major developments in the Park will be undertaken in accordance with an annual works program (see section 2.9.1).
- Visitor facilities will be kept to a minimum with priority being given to maintaining existing facilities.
- All signs are to be designed and sited in accordance with an interpretation strategy to ensure they are clearly evident to visitors without being overly intrusive (see also section 2.5.9).
- The needs of elderly and disabled people will be considered in the provision of Park infrastructure and facilities.
- Housing for term-transfer staff will be sourced from the local rental market. If necessary, subject to appropriate assessment, housing for Park may be constructed within the Park, adjacent to the Park boundary at the Mt Pitt entrance.

## **Management Actions**

### ***General***

- As a general principle, any new facilities will be designed, sited and constructed with the needs of disabled people in mind.
- Formal access to The Cord will be investigated during the life of the Plan.
- During the life of this Plan, in accord with a works program and subject to appropriate resources being made available, the following facilities will be provided in the Mt Pitt section of the Park:
  - picnic facilities and toilets at Palm Glen; and
  - hitching rails at picnic areas and at the intersections of horse-riding tracks and track which are suitable for walkers only.

### ***Phillip Island***

- During the life of this Plan, in accord with a works program and subject to appropriate resources being made available, limited facilities will be provided on Phillip Island. Preference will be given to access facilities (climbing ropes, steps and handrails) which are both safe and, to the extent possible, unobtrusive.
- Temporary facilities may be constructed on Phillip Island to facilitate the rehabilitation program, e.g. a small nursery and associated water supply.

### **2.5.7 Safety**

**AIMS:** To ensure that visitors to the Park have a safe and enjoyable experience.

#### **Background**

Accidents most likely to cause injury to people on Norfolk Island include falling from cliffs, being swept from rocks (particularly when fishing), slipping on walking tracks, being struck by falling trees or branches, and vehicle and horse-riding accidents. Over-exertion can also lead to a life-threatening situation for some people, particularly the elderly or infirm.

Steps have been constructed in steep and potentially slippery sections of walking tracks. Other safety precautions taken in the Park include the re-alignment of tracks away from cliff edges, resurfacing walking tracks, installing safety barriers, restricting vehicle access to main access roads, road maintenance and routine inspections.

Parks Australia uses a VHF radio system consisting of a base transceiver located at its office on Mt Pitt Road and vehicle-mounted and hand-held transceivers. The portable units can transmit through dense vegetation and good reception can be obtained from most places on Norfolk and Phillip Islands. The radio system is compatible with

the emergency radio frequencies used by the Norfolk Island Volunteer Rescue Squad.

Parks Australia has installed an integrated lock system which enables emergency vehicles (police, fire and ambulance) to gain access to all management tracks within the Park.

Phillip Island is an isolated and potentially dangerous place. The difficulties of landing boats at Phillip and Norfolk Island mean that access to Phillip Island can generally only be accomplished in calm seas. People can be stranded on Phillip Island for several days at a time waiting for seas to abate enough to return to Norfolk Island. The lack of soil structure has rendered some areas of the Island unstable and there are numerous cliffs and gullies on the Island.

A sign has been placed at the landing place on Phillip Island warning of the hazards of the Island and a similar warning is included on the map of the Island published by the Commonwealth. Currently, access to the Island is gained by fixed ropes placed by Norfolk Island residents before proclamation. These ropes now need to be removed or maintained by Parks Australia. The Parks Australia hut and the Fishing Club hut provide emergency shelter.

## **Policies**

- Parks Australia will assess regularly the risks to visitors in the Park and to take appropriate action to minimise those risks.
- Signs will be provided to advise the public of potential hazards in the Park.

## **Management Actions**

### ***General***

- Regular safety inspections will be undertaken of roads, tracks and other facilities within the Park.
- An effective emergency response strategy for the Park will be established in consultation with emergency services and local residents, tested, and implemented as necessary.

- Gradual incorporation of new radio-telephone networks into the new emergency communication system will be investigated for possible adoption.
- All permanent management staff will receive regular training in first aid and will be required to keep their qualification current.

### ***Phillip Island***

- The expertise of the Norfolk Island Volunteer Rescue Service will be sought to conduct regular safety inspections of the fixed ropes on Phillip Island and to replace them where necessary. The location of rope aids will be reviewed and, if necessary, rationalised. Consideration will be given to replacing the ropes with ladders and/or steps and rails.
- Parks Australia will continue to publicise the dangers of visiting Phillip Island in local media and other publications and by installing and maintaining warning signs at appropriate locations, including the landing place and both piers on Norfolk Island.
- First aid equipment, drinking water and an emergency food cache will be stored at the Parks Australia hut and the Fishing Club hut, together with regularly inspected and maintained communication equipment.

## **2.5.8 Commercial Activities**

**AIMS:** To regulate commercial activities in the Park whilst ensuring compatibility with other management objectives.

### **Background**

Parts of the Park are managed to provide opportunities for public recreation and enjoyment. This creates opportunities for local businesses to provide products and services to the visitors to the Park, particularly where Parks Australia is unable to meet the full range of public demand.

In addition to the Park's economic values with respect to tourism and recreation, there are resources present within the Park (e.g. guava) which may have commercial value. The Park is a community asset and Parks Australia has a responsibility to ensure that any commercial use which is made of it or its resources is environmentally appropriate and for the benefit of the whole community, without favour to any one commercial operator.

The (Norfolk Island) Norfolk Island National Park and Norfolk Island Botanic Garden Act 1984 and Regulations provide that commercial activities must only be conducted where a permit has been issued and in accordance with the conditions of that permit. Commercial activities which currently take place within the Mt Pitt section of the Park include tours by bus, four-wheel drive vehicles, horse and foot, sometimes following a particular theme, and sometimes with a barbecue following. There are no retail activities but there has been some interest expressed in harvesting guava from the Park on a commercial basis.

There are currently no commercial activities conducted on Phillip Island.

## **Policies**

- Commercial activities in the Park will only be allowed in accordance with a permit issued by the Park Manager.
- No operations for the recovery of minerals will be conducted in the Park during the life of this Plan.

## **Management Actions**

### ***General***

- The Park Manager will be responsible for considering all applications for permits to conduct commercial activities in the Park in accordance with guidelines approved by the Committee.
- Permits related to commercial activities in the Forestry Zone will be drafted in consultation with the Conservator of Public Reserves.

- Parks Australia will maintain a permitting system and register. Commercial permits will be issued on a financial year basis or for a lesser trial period.
- The Park Manager will provide to the Committee details of all permits issued and refused for commercial activities within the Park.

### **2.5.9 Interpretation and Education**

**AIMS:** To use appropriate methods to increase public awareness of nature conservation and cultural values of the Park, inform people of features of interest, and promote behaviour which is favourable to achieving Park objectives.

#### **Background**

Appropriate information about an area's values and management can add to the quality of a visitor's experience and is likely to benefit protection of the area.

Information about the Park is available from the Parks Australia office at the corner of Mt Pitt and Mission Roads.

The Norfolk Island Flora and Fauna Society established a natural history display which is currently housed in the Park Visitor Centre. This provides visitors with a range of information about the environment of the Norfolk Group.

Parks Australia has produced a number of leaflets and media articles related to the natural history and features of interest in the Park. In collaboration with the Norfolk Island Central School, it has also produced *The Norfolk Island Environment Book* (Jurd, 1989) as a resource for environmental education on Norfolk Island.

From time to time Parks Australia staff give talks to school groups and local associations about the natural history of Norfolk Island. Radio interviews and talks to local groups on topical issues are also occasionally given. Due to limited staffing, guided walks only occur by arrangement.

Results of the latest comprehensive survey of visitors to the Park (Griffith University, 1994) indicate that visitors would welcome more information about the Park to be made available on their arrival at Norfolk Island. The survey report also identifies a possible need for more prominent signs and maps at the main entrances to the Park.

## **Policies**

- Parks Australia will provide interpretive services and materials in accordance with an interpretation strategy for the Park.

## **Management Actions**

### ***General***

- An interpretation strategy will be developed for the Park and implemented, within the constraints of available resources.
- Parks Australia, if requested, will assist groups such as the Norfolk Island Flora and Fauna Society and the Tourist Bureau to provide a range of information on nature conservation and the environment to meet the needs of visitors to the Island.
- Consideration will be given to developing, in cooperation with local interest groups, training workshops on the natural and cultural history of the Park and a package for use by local tour guides.
- Self-guided walks using leaflets and numbered posts may be developed along suitable walking tracks.
- Consideration will be given to installing more prominent signs and maps at the main road entrances to the Park. A number of information signs, or an information bay, will be installed at the Park Headquarters car park.
- Display signs about Phillip Island may be installed on Norfolk Island at locations where there are good views of Phillip Island. These will make it clear that Phillip Island is an integral part of Norfolk Island National Park.
- Additional interpretive material will be produced, including general information about the Park and the local and national

conservation roles of Phillip Island. More detailed information about specific features of the Park such as its flora, fauna and history will also be made available to the public.

### **2.5.10 Burials and Scattering of Ashes**

**AIMS:** To provide for sensitive and appropriate disposal of human remains in the Park.

#### **Background**

On occasions, people have sought permission for burials, scattering of ashes and erection of monuments in national parks. It is possible that similar requests may be made in relation to disposal of human remains in the Norfolk Island National Park.

Burials are not permitted on Norfolk Island outside appropriately gazetted areas.

#### **Policies**

- No burials will be permitted within the Norfolk Island National Park.
- Scattering of ashes may be permitted within the Park in accordance with defined guidelines.
- Erection of monuments will not be permitted within the Park but installation of memorial plaques will be considered on a case-by-case basis.

#### **Management Actions**

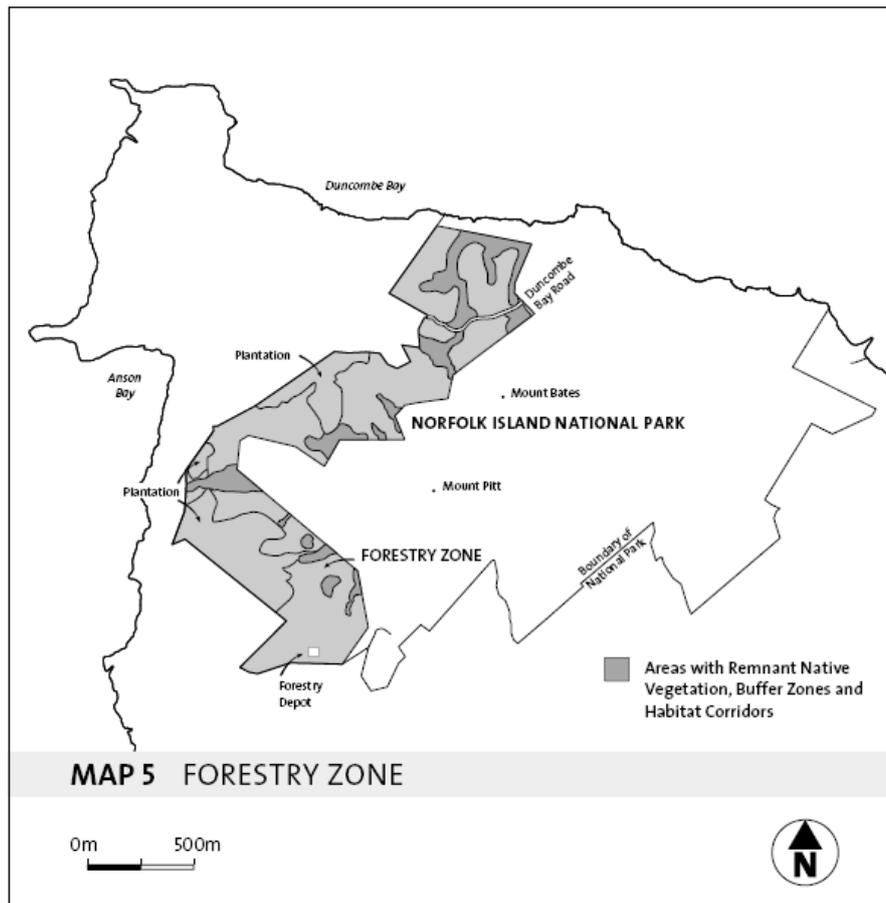
##### ***General***

- All requests for scattering of ashes or installation of plaques will be referred to the Committee for consideration.
- Approval for scattering of ashes will only be given subject to the following conditions:
  - adequate lead time should be given in order to allow the Park Manager to consult with the Committee;

- the time of day chosen should minimise impact on other Park users;
  - only areas accessible by public roads or tracks may be used;
  - a reasonable limit should be set on the number of people attending, taking into account access, parking, environmental sensitivity and other features of the site and the needs of other Park users;
  - attendance of the media is generally not appropriate; and
  - any associated activities must be specified so that they may be considered by the Committee.
- Approval may be given for the installation of memorial plaques subject to the identification of a suitable site and a design that is modest and unobtrusive.

## **2.6 Forestry Zone**

As the Forestry Zone is located within the gazetted boundaries of the Park, prescriptions for its management must be included in this plan. This section of the Plan has been drafted in consultation with the Norfolk Island Parks and Forestry Service (NIPFS).



## 2.6.1 Forestry Zone Management

**AIMS:** To manage the Forestry Zone of the Park for timber production, whilst protecting areas of high conservation value.

### Background

The area comprising the Forestry Zone (Map 5) was cleared for banana plantations during the 1930s but after the collapse of the banana industry developed into a dense thicket of African Olive. This area was included in the Mt Pitt Reserve as an area reserved for forestry purposes in 1955. It was then declared under the (Norfolk Island) Norfolk Island Commons and Public Reserves Ordinance

1936. Some sections adjacent to the western boundary were cleared of olive and Eucalypt plantations were established.

The boundary of the Forestry Zone, as defined in the first Plan of Management for the Park, was based on an assessment of the extent of heavily weed-infested forest as determined from aerial photography. The boundary was surveyed and clearly marked on the ground during 1992-93. It includes several small areas of remnant native vegetation.

Management of the plantations within the Zone is the responsibility of the NIPFS. As the Forestry Zone is within the gazetted boundaries of the Park, the National Parks and Wildlife Conservation Act 1975 and the Norfolk Island National Park and Norfolk Island Botanic Garden Act 1984 apply to this area.

The first Plan of Management for the Park provided for olive-infested areas to be cleared and planted with Norfolk Island Pine (*Araucaria heterophylla*) for the purposes of production forestry. It is not expected that any of these pine plantations will mature to harvest within the life of this plan.

Forestry management on Norfolk Island is based on the Forestry Working Plan (Benson, 1985) and the Report on the Forestry Working Plan (1992). The latter report made a number of specific recommendations relevant to the management of the Forestry Zone, including that the planting of approximately 4ha per year of Norfolk Island Pine be continued.

The small areas of remnant native vegetation in the Forestry Zone have been surveyed and recommended for preservation due to their high nature conservation values (Davidson, Anderson and Evans, 1994).

Fire is a significant risk in the Forestry Zone particularly in the eucalypt plantations after a period of dry weather. Under these circumstances a fire ban is declared over the whole Park.

## **Policies**

- The NIPFS will manage forestry activities in the Forestry Zone.

- The intent of the recommendations of the Report of the Forestry Working Plan will be incorporated into the management of the Forestry Zone. The Zone will be managed with the best techniques available and based on established practices and professional advice.
- No non-native species will be planted in the Forestry Zone with the exception of eucalypts which may be planted for a second rotation as existing eucalypts are harvested.
- Areas of remnant native vegetation identified in the Forestry Zone as having significant conservation value will be defined and not be cleared during the life of this plan. A buffer zone may be established to protect these areas from activities associated with plantation establishment. Weed control will be undertaken in and around significant remnant vegetation.
- Consideration will be given to incorporating areas of the Forestry Zone which are uneconomic for forestry plantations into the main body of the Park.
- The Park Manager may declare a fire ban in the Park during periods of high fire risk.

### **Management Actions**

- Areas of African Olive and other woody weeds will continue to be cleared and replanted with Norfolk Island Pine at a rate of up to 4ha per year in accordance with the five-year clearing strategy.
- Before clearing each new compartment, where practicable viable native seedlings will be salvaged for the Park rehabilitation program or made available to the public. Native timber that would otherwise be bulldozed may be salvaged for specialist craft use.
- Eucalypts will be progressively harvested for local use.
- Methods for controlling weeds will be continually updated, with weeds in plantations being controlled by slashing, spraying or other appropriate methods.

- Fire breaks and litter reduction will be used to reduce the likelihood of wildfire in the plantations.
- Clearing and subsequent treatment will be undertaken in ways that will minimise soil erosion and the spread of root pathogens such as *Phellinus noxius*.
- Boundary fencing will be maintained and/or replaced where necessary in cooperation with the NIPFS.
- Areas uneconomical for clearing will be actively managed by Parks Australia to protect and improve nature conservation values.

## **2.6.2 Nursery Management**

**AIMS:** To enable the effective propagation of plants to meet the needs of the Norfolk Island Parks and Forestry Service and the Park rehabilitation program.

### **Background**

It is necessary to have a reliable source of seedlings for the success of forestry operations within the Forestry Zone and for rehabilitation and endangered flora recovery programs in other areas of the Park. In recognition of this need, the NIPFS and Parks Australia jointly established a nursery within the Forestry Zone of the Park. The nursery is staffed and maintained by the NIPFS in cooperation with Parks Australia.

A propagation manual for Parks Australia and NIPFS staff on Norfolk Island (Butler, 1990) was produced and has added to the success of the programs. Surplus stocks of trees and shrubs

have been made available to the public, with financial returns from sales going to the Norfolk Island Administration. There

is an increasing public demand for greater numbers and species of seedlings.

## **Policies**

- Nursery facilities will be provided that will permit propagation targets to be met effectively, allow for more efficient use of space and improve occupational health and safety conditions.
- Emphasis will be placed on increasing the production and successful establishment of rare and endangered native plants.

## **Management Actions**

- Seeds and cuttings for propagation in the nursery will be collected from the Park and other public reserves where possible.
- The nursery manager, NIPFS, will consider the need to quarantine seedlings brought into the nursery area.
- Appropriate measures will be undertaken to overcome seasonal irregularities in seed production, possibly including propagating larger numbers of seedlings during good years, contracting out seed collection activities and investigating improved seed storage techniques.
- Where necessary, the rarer threatened species propagated in the nursery will be retained for rehabilitation works in the Park and other public reserves (see section 2.3.7).
- The number of seedlings produced each year will be in accordance with the rehabilitation priorities set down in the revised Rehabilitation Strategy and the requirements of the NIPFS. Any seedlings in excess of these requirements may be made available for sale to the public.
- Leaflets will be published on the care and maintenance of rare and endangered species that are available for public sale.

## **2.7 Research and Monitoring**

### **2.7.1 Research**

**AIMS:** To conduct and sponsor research within a strategy which will

lead to better understanding and management of Norfolk Island's natural resources.

## **Background**

Although Norfolk Island is fortunate in having been the site of some of the earliest scientific studies conducted in the South Pacific, large gaps remain in knowledge of the natural resources of Norfolk Island and the ecological processes which are operating there. The major areas of research undertaken so far in the Norfolk Island National Park include the ecology of the threatened birds, flora surveys and taxonomy, and pest management.

Research priorities will focus on issues directly relevant to the management of the Park. This may require a Territory-wide perspective, in cooperation with relevant authorities and landholders outside the Park, on issues that impact on park management.

A permit system operates in the Park for the taking of plants and animals for scientific research and other purposes. The Park Manager, Administrator, the Crown Solicitor and the Conservator of Public Reserves have developed a standard set of guidelines to apply to complementary permits issued for research conducted in the Park and other areas.

A large and ongoing research effort is needed to address information gaps. This should be conducted within a strategic framework to target management needs.

## **Policies**

- Research priorities for the Park will be set out in a research strategy.
- Permits for scientific research involving the taking of plants or animals from the Park will be considered in accordance with the research strategy, the Regulations and related Commonwealth and Norfolk Island Government policy.

## **Management Actions**

### ***General***

- The Park Manager will maintain a strategy document identifying priority areas for research in the Norfolk Island National Park. As a general principle, priority will be given to research projects that directly assist park management.
- Research consultancies will be developed for specific research projects requiring specialist skills or knowledge, and which Parks Australia staff are unable to conduct.
- Research guidelines and conditions imposed on research permits will reflect those applied throughout Parks Australia. However, as appropriate, the Park Manager, in consultation with the Conservator of Public Reserves, NIPFS, will develop additional guidelines to apply to particular scientific research in the Park.
- Scientific research may be allowed on Phillip Island under permit, where safety issues can be adequately addressed and where the research has clear benefit to the Park.

### **2.7.2 Monitoring**

**AIMS:** To monitor the environments and usage of the Park, review the effectiveness of management and guide future strategies.

#### **Background**

Monitoring is an essential management tool which allows environmental changes to be recognised and which also allows management actions to be evaluated against stated objectives.

Monitoring has been an integral part of Parks Australia operations in Norfolk Island National Park, notably in the endangered bird recovery programs, and associated feral animal control programs. Monitoring is also used to evaluate the success of vegetation rehabilitation works and to check visitor numbers and attitudes.

## **Policies**

- Simple monitoring techniques will be incorporated into routine and other operations, where there is value in doing so.
- Monitoring of flora and fauna will include both population and habitat analyses.

## **Management Actions**

### ***General***

- Aerial photogrammetry and photopoints will be considered for greater use in monitoring the success of vegetation rehabilitation programs, especially on Phillip Island.
- Current monitoring programs for the Norfolk Island Green Parrot and Morepork populations will continue during the life of this Plan in accordance with any endangered species recovery plans.
- Weed control, vegetation rehabilitation and feral pest control efforts will continue to be monitored to evaluate their performance and ensure they remain effective. The results of monitoring will be incorporated in the updates of the relevant strategy.
- Visitor numbers and expectations will be monitored and the information used in evaluating and providing for appropriate levels of access, facilities and other services.

### ***Phillip Island***

- Priority will be given to monitoring Phillip Island for weed invasions and the control or eradication of those weeds, e.g. Kikuyu. Clearing works will be undertaken so as to minimise disturbance to the nesting sites of the Kermadec Petrels and White-necked Petrels.

## **2.8 Staffing, Facilities and Resources**

### **2.8.1 Staffing**

**AIMS:** To ensure that the Norfolk Island National Park has a sufficient number of staff with appropriate skills and experience with which to implement the management prescriptions contained in this Plan.

#### **Background**

Parks Australia staff are currently members of the ANPWS but from the commencement of the EPBC Act, staff will become members of Environment Australia. Parks Australia is required to follow equal employment opportunity principles and Australian Public Service guidelines regarding recruitment and employment of contractors and consultants.

Parks Australia currently employs six staff on Norfolk Island and engages casual and contract labour to meet the workload demands of managing the Park and the Norfolk Island Botanic Garden. Currently, four of the Island-based staff are permanent residents of Norfolk Island.

In accordance with a Memorandum of Understanding between the Commonwealth of Australia and the Administration of the Territory of Norfolk Island, Parks Australia staff appointed to the Norfolk Island National Park abide by the requirements of the (Norfolk Island) Immigration Act 1980. These requirements dictate that any non-resident employees must be appointed on term transfers which are generally of about three years duration. A member of the Committee is invited to participate in the selection process for new staff members by being a member of the selection advisory committee convened to interview applicants for vacant positions.

To ensure continuity and facilitate the transfer of information between incoming and outgoing staff, it is important that as many aspects of operational procedures as possible are clearly documented.

The inclusion of Phillip Island in the Park, together with the implementation of endangered species recovery plans and feral animal control programs, has added significantly to the workload of Parks

Australia staff. This has resulted in an increasing reliance on contractors and consultants over recent years.

Staff have benefited from both Parks Australia-based and other training opportunities whilst attached to the Park. Some training programs organised by Parks Australia on Norfolk Island have been made available to Norfolk Island residents. The transfer of skills to Island-based staff may reduce the current reliance on external consultants for specialist services.

Parks Australia has undertaken to assist in the training of Island residents. To this end, it has provided an annual scholarship to a tertiary student undertaking studies related to park or wildlife management.

## **Policies**

- Staff resources will be subject to periodic review during the life of this Plan to ensure that sufficient, appropriately trained staff are available to carry out required functions in the Park.
- Parks Australia will endeavour, where relevant, to extend access to training provided for its staff to other interested people on Norfolk Island.

## **Management Actions**

### ***General***

- Casual and contract staff will continue to be employed for tasks which have a high labour requirement over a short time frame, or for projects which require skills or expertise not available amongst Parks Australia staff on Norfolk Island.
- Training opportunities will continue to be provided to Parks Australia staff on the Island when possible and provision will be made for staff to attend relevant training courses on the mainland or elsewhere as appropriate.
- Volunteer labour may be used in the implementation of this Plan.

- Where possible, when Parks Australia provides training on the Island for its Norfolk-based staff, it will endeavour, where relevant, to provide access to that training for other interested people on Norfolk Island on a cost-recovery basis and to coordinate training programs with other government and non-government agencies on Norfolk Island.
- Consideration will be given to maintaining a scholarship for a Norfolk Island tertiary student undertaking studies related to park or wildlife management.

## **2.8.2 Facilities and Resources**

**AIMS:** To ensure that staff managing the Park are provided with adequate facilities and resources to enable them to work effectively and to implement the prescriptions contained in this Plan.

### **Background**

Managing the Park requires a considerable amount of infrastructure such as office space and sheds to store equipment and other items used in day-to-day management.

The Parks Australia office is currently located at the corner of Mt Pitt and Mission Roads. A small shed located at the Botanic Garden services both the Botanic Garden and the Green Parrot aviary. Other facilities are located at the nursery and NIPFS Depot. These include sheds for storing equipment and a chemical store for herbicides, pesticides and associated equipment.

Currently, Parks Australia operations on Norfolk Island are funded wholly from the Australian National Parks and Wildlife Fund through a Commonwealth Government budgetary allocation. The Norfolk Island Government funds the operations of the NIPFS.

### **Policies**

- Any infrastructure or equipment required in order to implement the prescriptions contained in this Plan will be provided in accordance with an annual works program and the provisions of section 2.9.1.

- Occupational Health and Safety requirements will be taken into account when acquiring and maintaining infrastructure and equipment.

## **Management Actions**

### ***General***

- Annual works programs will identify new infrastructure to be put in place and, to the extent possible, equipment to be purchased during the year.
- An annual repairs and maintenance program covering all Park assets will be established and implemented.
- Staff and contractors operating specialised equipment will be required to obtain and maintain appropriate training and/or qualifications. Appropriate training may be provided in accordance with the provisions of section 2.7.1.

## **2.9 Making Decisions and Evaluating Proposals**

### **2.9.1 Making Decisions and Evaluating Proposals**

**AIMS:** To ensure that decisions about managing the Park are made using procedures that are consistent; clear and accountable; based on the best available information; and fair, efficient and timely; and to ensure that decision-making processes include adequate evaluation and assessment of all impacts on the Park, and where appropriate, opportunities for the general public to make comments.

### **Background**

To manage Norfolk Island National Park, decisions have to be made on a wide range of issues and at a range of levels. Park staff make day-to-day decisions about Park operations, consulting where appropriate with the Committee, and following approved procedures. Making decisions about more complex issues requires increased and more formal consultation and approval processes. The Plan of Management is the process for setting policies and management

directions for the Park, and involves consultation with the public and the Committee, and approval by the Director, the Norfolk Island Government, the Commonwealth Minister and Parliament.

Under section 30 of the Australian Heritage Commission Act 1975, Commonwealth ministers, departments and authorities are required not to take any action that would adversely affect a place on the Register of the National Estate, unless there is no feasible and prudent alternative. If there is no such alternative, then all reasonable measures must be taken to minimise any adverse effect and the Australian Heritage Commission must be given an opportunity to comment on the proposal.

## **Policies**

- Opportunities for public and stakeholder input will be provided whenever appropriate, and to as great an extent as is reasonably feasible, taking into account the need for decisions to be made efficiently and without undue delay.
- Where appropriate, Parks Australia and the Committee will seek information from experts outside the Park as well as from Park staff. Information will be obtained through the consultative and assessment procedures set out in Table 1, and from relevant research and surveys.
- Issues that endanger human life or safety will precipitate immediate management action and a subsequent report to the Director, the Committee and the Norfolk Island Government.

**Table 1: Decision-making Procedures, Norfolk Island National Park**

CLASS	APPLIES TO —	PROCESS
A	<ul style="list-style-type: none"> <li>– Category 1 developments</li> <li>– Work programs</li> <li>– Specific actions carried out under existing strategies</li> </ul>	Park staff: <ol style="list-style-type: none"> <li>1. consult;</li> <li>2. follow any procedures required in a relevant Manual of Procedures;</li> <li>3. make and implement decision.</li> </ol>
B	<ul style="list-style-type: none"> <li>– Category 2 developments</li> <li>– Construction of minor capital works (below \$250 000)</li> </ul>	Park staff: <ol style="list-style-type: none"> <li>1. consult;</li> <li>2. prepare draft documentation;</li> <li>3. consult with key interest groups and/or experts.</li> </ol> Delegate of the Director approves after evidence of consultation with all relevant stakeholders.
C	<ul style="list-style-type: none"> <li>– Category 3 developments</li> <li>– Feral animal management strategies</li> <li>– Research strategy</li> <li>– Visitor management strategy</li> </ul>	Park staff: <ol style="list-style-type: none"> <li>1. consult:</li> <li>2. prepare draft documentation;</li> <li>3. consult with key interest groups, experts, and Norfolk Island Government;</li> <li>4. obtain advice from the Committee.</li> </ol>

## Management Actions

### *General*

- All proposed developments in the Park will be evaluated for the potential impact on the Park. This may be conducted by Parks Australia staff, consultants or outside agencies. Proposals will be assessed as appropriate for their impact on

the aesthetic, scientific, recreational, educational, natural and cultural value of the site and the Park.

- After being evaluated, a proposal may be approved to proceed if the likely impact is acceptable in terms of this plan, and relevant legislation governing the Park. Proposals which are considered to have a possible negative impact on the Park may be rejected.
- Where proposals originate outside Parks Australia or are intended to make money for the person proposing them, Parks Australia may require that the proponent pay the financial costs of environmental assessment.
- Proposed developments and works in the Park will be considered under the categories set out in Table 2.
- Proposals with significant impacts (Category 3) will be referred for assessment under the Environment Protection (Impact of Proposals) Act 1974 (or the EPBC Act after July 2000) and section 30 of the Australian Heritage Commission Act 1975.
- Rolling triennial work programs in the Park will be prepared by Park staff. Work plans will describe the roles of Park staff in carrying out the planned activities.
- In advising the Committee, Parks Australia may consult with other interested parties, and will advise the Committee of the level of consultation carried out and the views expressed. Written records will continue to be kept of all recommendations of the Committee and the reasons for the recommendations.
- Development proposals will be evaluated within the relevant legislative framework.

**Table 2: Development Categories, Norfolk Island National Park**

<b>Category 1</b>	<b>Activities which have or are likely to have little or no environmental or social impact</b>
Examples:	Routine maintenance; repairing or replacing existing structures in their present form; replacing toilets with similar facilities; improving existing car parks to minimise environmental degradation; minor realignment of existing walking tracks to minimise damage to the environment; and repairing existing roads or tracks.
<b>Category 2</b>	<b>Activities which may have an environmental or social impact at a local level</b>
Examples:	Establishing or extending walking tracks and car parks; upgrading facilities such as amenity blocks; minor realignment of existing roads or access tracks; regrading existing roads and tracks where this may affect water flow; and establishing new boat landings.
<b>Category 3</b>	<b>Activities which are likely to produce a major environmental impact and/or significantly alter visitor usage and/or are a significant change from existing facilities in the Park</b>
Examples:	Major realignments of existing roads or tracks; establishing permanent roads or tracks; and opening and/or closing areas of the Park to a high level of visitor use and impact on a listed species.

## 2.9.2 Reporting and Technical Audit

**AIMS:** To evaluate progress in implementing the Plan and conduct a final technical audit.

### Background

This Plan of Management has been developed on the basis of the financial and staff resources, expectations and knowledge currently available. Management techniques considered appropriate at any particular time can be expected to change as knowledge continues to improve, or circumstances change.

As circumstances and expectations are likely to change during the life of this plan, mechanisms have been established to evaluate and review the effectiveness of the Plan and to provide for necessary modifications in the next Plan.

## **Policies**

- Progress on the implementation of the Plan will be summarised annually and a final technical audit of the implementation of the Plan will be conducted during the last year of its life as part of the process of preparing the next Plan of Management.
- The scope and procedures for the final technical audit will be developed in consultation with the Committee and the Norfolk Island Government.

## **Management Actions**

### ***General***

- An annual report on the implementation of management prescriptions described in this Plan will be presented through the Director to the Committee.
- Towards the end of the period of implementation of this plan, a technical audit of the Plan will be commissioned with the following terms of reference:
  - (a) to consider each prescribed management action and determine whether or not it was carried out;
  - (b) to evaluate the performance of each prescribed action in relation to the objective or objectives it was intended to serve;
  - (c) in the case of any prescribed action that was not implemented, or which failed to achieve the desired outcome, to determine the cause;
  - (d) to report the results of (a), (b) and (c) above to the Committee and the Director, together with an overall

assessment of the delivery of the Plan in relation to its objectives; and

- (e) in the light of the plan's performance, to recommend to the Director any changes to the objectives and prescribed actions that should be considered during the preparation of the next plan.

## **Schedule 1**

### **DESCRIPTION OF EXISTING DEVELOPMENTS IN THE NORFOLK ISLAND NATIONAL PARK**

In accordance with Section 11(6) of the National Parks and Wildlife Conservation Act 1975, the following description of buildings, structures, facilities and developments in the Norfolk Island National Park is provided.

<b>MT PITT SECTION (OTHER THAN FORESTRY ZONE)</b>	<b>FORESTRY ZONE</b>	<b>PHILLIP ISLAND</b>
Boundary fence	Boundary fence	National Park hut
Roads and tracks	Roads and tracks	Permanent climbing ropes
Cattle-stops at all entrances	Office building	
Barbeques	Chemical store	
Interpretive signs	National Park store	
Track signage	NIPFS equipment shed	
Park benches	NIPFS potting shed	
Picnic tables	Nursery shade-house	
Power transmission line (underground) and substation on Mt Pitt summit (NI Electricity)	Nursery bore and storage tank	
Communications hut and antenna tower		
Captain Cook Monument		
Steps and handrails on steep sections of track		

## **Schedule 2**

### **DESCRIPTION OF PROPOSED BUILDINGS AND DEVELOPMENTS IN THE NORFOLK ISLAND NATIONAL PARK**

In accordance with Section 11(6) of the National Parks and Wildlife Conservation Act 1975, the following description of proposed buildings, structures, facilities and developments in the Norfolk Island National Park is provided.

#### **Developments by Parks Australia**

##### **Road Works**

Subject to availability of funds and the environmental impact assessment and decision-making processes set out in this plan, repair and reconstruction of the Mt Pitt road, Duncombe Bay road and Selwyn Pine road within the Mt Pitt section of the Park will be undertaken. These works will correct damage to these roads resulting from heavy storms in 1998.

##### **Track Works**

Subject to availability of funds and the environmental impact assessment and decision-making processes set out in this plan, development of a circuit walking track in the Mt Pitt section of the Park will be considered. Maintenance and upgrading of other walking tracks in that section of the Park may be undertaken with a view to ensuring visitor safety. A system of preferred tracks and paths in the Phillip Island section may also be developed.

##### **Visitor Facilities**

Subject to availability of funds and the environmental impact assessment and decision-making processes set out in this Plan, the following visitor facilities may be provided:

- picnic facilities and toilets at Palm Glen in the Mt Pitt Section of the Park;
- hitching rails at picnic areas and at the intersection of horse-riding tracks and walkers only tracks in the Mt Pitt section of the Park; and
- limited access facilities in the Phillip Island section of the Park, with preference to facilities which provide safe and unobtrusive access, including climbing ropes, steps and ladders.

### **Management Facilities**

Subject to availability of funds and the environmental impact assessment and decision-making processes set out in this plan, temporary facilities may be constructed in the Phillip Island section of the Park to assist with the rehabilitation program for the Island, including a small nursery and associated water supply.

### **Housing**

Subject to availability of funds and the environmental impact assessment and decision-making processes set out in this plan, construction of housing as residence for Park staff may be undertaken within the Mt Pitt section of the Park. Construction will only be considered in the event that officer accommodation cannot be reasonably found elsewhere.

### **Developments by Other Bodies**

#### **Norfolk Island Parks and Forestry Service**

In accordance with appropriate licences and subject to the environmental impact assessment and decision-making processes set out in this plan, the Norfolk Island Parks and Forestry Service may construct an equipment shelter and a small office in the Forestry Zone.

#### **Essential Services and Communication Facilities**

In accordance with appropriate licences and subject to the environmental impact assessment and decision-making processes set

out in this plan, developments in the Mt Pitt section of the Park may be undertaken associated with the provision of electricity and other essential services and with the provision of radio, telephone and other communications facilities.