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# Reef Hills State Park

Management Plan July 2007



This Management Plan for Reef Hills State Park is approved for implementation. Its purpose is to direct all aspects of management of the park until the plan is reviewed.

A Draft Management Plan for the area was published in May 2006. Twenty-six submissions were received. All submissions have been considered in preparing this approved Management Plan.

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# **REEF HILLS STATE PARK**

# MANAGEMENT PLAN



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Cover: Box woodland in Reef Hills State Park (Photo: Julie Flack)

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Acknowledgement of *Country*: In their rich culture, Indigenous Australians are intrinsically connected to the continent — including the area now known as Victoria. Parks Victoria recognises that the park is part of *Country* of the Traditional Owners.

Note Technical terms used in this plan are explained in the Glossary at the end of the plan.

#### Disclaimers

The plan is also prepared without prejudice to any future negotiated outcomes between the Government/s and Victorian Indigenous communities. It is acknowledged that such negotiated outcomes may necessitate amendment of this plan.

Every effort has been made to ensure that the information in this plan is accurate. Parks Victoria does not guarantee that the publication is without flaw of any kind and therefore disclaims all liability for any error, loss or other consequence that may arise from you relying on any information in the publication.

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## FOREWORD

Reef Hills State Park protects an important remnant of Box–Ironbark forest in an otherwise cleared agricultural landscape. It contributes to the protection of biodiversity of Box-Ironbark ecosystems and across the landscape protects vegetation connecting the hills and watercourses.

The park offers the people of Benalla and surrounding towns a natural setting for a range of recreational activities.

The park is of particular importance to the Traditional Owners. Parks Victoria seeks to reflect their interests and aspirations for the park in its management.

Other community groups, including Landcare and Friends of Reef Hills, play an active role in park management through monitoring programs and research activities. The park protects many threatened plant species, including Purple Diuris, Clover Glycine, Bent-leaf Wattle and Narrow Goodenia, and is one of 40 priority sites in Victoria for the recovery of the Brush-tailed Phascogale.

This plan details the values and attractions in Reef Hills State Park and is a strategic guide for their protection and management. It was completed following careful consideration of the 26 submissions received from the public on the draft plan.

I thank those individuals and organisations who made submissions, and encourage everyone to continue to enjoy and appreciate the park and become involved in its management.

JOHN THWAITES MP Minister for Environment, Water and Climate Change

## APPROVED MANAGEMENT PLAN

This Management Plan, prepared under Section 17 of the *National Parks Act 1975* (Vic.), proposes the basis and directions for the future management of Reef Hills State Park.

Parks Victoria recognises the important contributions that members of the community who know and value the area can make to its management. Through this plan, Parks Victoria seeks to strengthen its relationships with individuals and groups with particular interests in the park, and encourage them to participate in its management. Parks Victoria is encouraging these groups to become further involved with the park by supporting its management with their knowledge, skills and enthusiasm. The plan provides the basis for the future management of Reef Hills State Park. It was finalised following consideration of the 26 submissions received on the Draft Management Plan.

PETER HARRIS Secretary to the Department of Sustainability and Environment MARK STONE Chief Executive Parks Victoria

## INTRODUCTION TO BOX-IRONBARK PARKS

The Box–Ironbark forests and woodlands lie inland of the Great Divide in northern Victoria. Extending in a broad band from Wodonga through Chiltern, Beechworth and Benalla, they reappear near Numurkah and continue through Heathcote, Bendigo, Maryborough and St Arnaud to Ararat and Stawell. At the time of European settlement they covered almost three million hectares, or 13% of Victoria.

Box–Ironbark forests and woodlands are unique to Australia, and they are valued by local communities and celebrated in literature and art. The landscapes of the region have also inspired poets, writers and artists, both past and contemporary, including Banjo Paterson and Steele Rudd. With the addition of these highly protected forests and woodlands to the system of parks and reserves in 2002, their future is assured.

Reef Hills State Park protects 2032 ha of Box– Ironbark forests and woodlands, including nationally significant flora and fauna. The park also provides recreation opportunities for a wide range of park users, particularly residents of the Rural City of Benalla. The park is the largest natural area of public land near the city.

Box–Ironbark areas are part of *Country* of the Traditional Owners. There are many areas rich in archaeological, cultural and spiritual significance throughout the region. Increasingly, Indigenous communities are involved in revealing and protecting and sharing the region's Indigenous heritage.

Box–Ironbark forests and woodlands contain some of Victoria's most significant historic gold-mining landscapes and features on public land, including areas of national cultural heritage significance. This has been recognised in the establishment of Castlemaine Diggings National Heritage Park, the first of its kind in Australia. These landscapes and sites are associated with many former gold towns and settlements, and combine with them to form a region of strong historic character and interest. The historic gold mining landscapes are significant components of tourism in the region today.

The Box–Ironbark forests have been associated with forestry, gold mining, grazing and

apiculture since the 1830s. The major reefs and underground ore bodies helped establish and maintain towns, and together with forest products, contributed to the State's economic development.

Different people value the forests in different ways, but local communities have strong feelings of pride in, and ownership of, their Box–Ironbark landscapes. The creation of the Box–Ironbark parks presents further opportunities to celebrate, protect and enhance these special landscapes.

Because much of the Box–Ironbark area was suitable for grazing and other forms of agriculture, and because it coincides with Victoria's gold country, European settlement has had a substantial impact. More than 80% of the area has been cleared, and nearly all the remainder (496 000 ha, of which 372 000 ha is on public land) has been affected by grazing, timber cutting and other pressures from settlement. Past land uses have also contributed to region-wide problems of pest plants and animals, salinity and soil erosion.

Interestingly, the gold mining, which had a significant initial impact on these environments, also contributed to their protection. To ensure supplies of timber for mining needs, the government established forest reserves. These became the setting for settlements and communities and the backyards for local people growing up in the area. Some are the basis of today's parks and reserves.

Although dominated by box and ironbark eucalypts, the Box–Ironbark forests are not uniform. Six broad vegetation and landscape types and no fewer than 73 Ecological Vegetation Classes are recognised. The most extensive classes before the arrival of Europeans were Plains Grassy Woodland, Grassy Woodland and Box–Ironbark Forest; all are now considered endangered or depleted.

Fragmentation and loss of habitat mean that almost 300 Box–Ironbark plant species (out of a total of 1500 flowering plant species) and 53 of a total of 250 vertebrate fauna species are now considered threatened. Many species, particularly of birds, are in an ongoing state of decline. A key aim of Box–Ironbark conservation and management is therefore the recovery of species, as well as the protection of those species not currently threatened.

One of the greatest losses has been that of large old box and ironbark trees, which produce reliable and abundant nectar, supply foraging sites such as peeling bark and fallen timber for ground-dwelling animals, and have many hollows vital for native mammals and birds. Instead of a landscape of large old and widely spaced trees, much is dominated by multi-stemmed coppice regrowth.

In October 2002, after many years of study and debate, the Victorian government proclaimed a number of parks designed primarily to protect and enhance the natural and cultural values of some of the remaining original Box–Ironbark forests. The parks were also to be available for a range of appropriate recreational activities and for community enjoyment and appreciation. They comprise five national parks, five State parks, seven regional parks, two historic parks and reserves and one national heritage park. There are also some 300 conservation reserves to help link these park areas, bringing some connectivity to an otherwise fragmented landscape.

Some of the parks, such as Chiltern – Mt Pilot and Greater Bendigo National Parks, are extensions of existing parks; others, such as Heathcote–Graytown National Park and Broken–Boosey State Park, are completely new. But together they are a significant step towards halting the decline of threatened species in the Box–Ironbark forests and woodlands, increasing community recognition of the values of the forests and woodlands, and improving opportunities to develop tourism and related industries.

The parks should not be seen as separately managed 'islands' but as reservoirs of biodiversity within a broader landscape. Protecting and enhancing natural values on other public and private land in the region is vital for improving and connecting habitat for native species. The parks and the people who manage them are an integral part of local communities, and these communities in turn will play a key role in the protection, promotion and management of the parks.

The long-term protection of the region's cultural heritage and biodiversity, including that of its parks and reserves, relies on the community fostering a strong sense of custodianship of the parks and reserves and the landscapes of which they are an important part. This plan seeks to rebuild the natural linkages in a fragmented landscape through the goodwill of the community together with the help of land managers and the government, while respecting cultural, economic and community associations with the land.

Because of their rich Indigenous and European heritage, in addition to their natural attractions, the Box-Ironbark parks are likely to have a growing significance for Victorians and visitors from interstate and overseas in the years ahead. The parks may not be major tourism attractions in their own right, but they are integral to the character of growing regional cities such as Bendigo. They have great potential as a complementary product for people who come to the region for other reasons, such as seeking social, recreational, sporting or heritage experiences. There is also potential for Indigenous communities and products to support the development and delivery of Box-Ironbark experiences for visitors.

This plan explains these values and attractions in detail for Reef Hills State Park, and sets out how they will be protected and managed.

## SUMMARY

Reef Hills State Park (2032 ha) protects an important remnant of Box–Ironbark forest and woodland five kilometres south of the Rural City of Benalla in northern Victoria. The park provides habitat for a range of threatened flora and fauna, notably Purple Diuris, Narrow Goodenia, Squirrel Glider and Brush-tailed Phascogale.

The park lies within *Country* of the Taungurung people. The features of the park are significant to Indigenous people. The care of the park is of great importance to their identity and well-being, and is important for the park.

Traces of past gold mining can still be seen along the ridges and in the gullies in the northern part of the park. This is the only surviving evidence of gold mining in the Benalla area.

The park provides local residents and the broader community with recreational opportunities in an accessible natural setting, and is highly valued as a conservation area in an otherwise modified landscape. Popular activities in the park include bushwalking, bicycle riding, picnicking, horse riding, bird watching and walking dogs.

The park will be managed as a world-class protected area for biodiversity and heritage conservation, and outdoor recreation that is consistent with its status. Restoring biological values and habitat linkages with surrounding remnant vegetation will be an important management goal, as will maintaining visitor facilities that are in keeping with the scale and relatively undeveloped character of the park.

This management plan replaces the Reef Hills Park Management Plan (DCFL 1987).

Key management directions for the park are summarised as follows:

- In the long-term, restoration of vegetation communities to a more natural structure, and an increase in their habitat diversity.
- Encouragement of linkages between park habitat and remnant habitat on other public and private land.
- Maintenance of viable populations of threatened flora and fauna.
- Encouragement of research into the management requirements of significant plant and animal species and communities.
- Control and, if practicable, eradication, of pest plants and animals that have the potential to threaten park values.
- Minimisation of soil erosion, habitat fragmentation, visual impacts and illegal rubbish dumping.
- Development of a kangaroo management strategy to manage impacts of kangaroo grazing on vegetation communities and threatened flora species in the park.
- Protection of Aboriginal places and objects.
- Protection and conservation of historic cultural places and relics as appropriate.
- Respect for the views of the Traditional Owners and cultural obligations of Indigenous people.
- Reflection of the Traditional Owners' knowledge, and interests, rights and aspirations for the park, in planning and management.
- Encouragement and support of community involvement in the park's management, particularly those with traditional or historical associations, or other special interests, in the park.

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## 1.1 Location and planning area

Reef Hills State Park straddles the Hume Freeway five kilometres south of Benalla and 200 kilometres north-east of Melbourne (figure 1).

The planning area covers Reef Hills State Park (2032 ha), including the Reef Hills Reference Area (123 ha) which is part of the park (figure 2).

## 1.2 Creation of the park

Reef Hills State Park was included in Schedule 2B of the *National Parks Act 1975* (Vic.) as a result of the *National Parks (Box–Ironbark and Other Parks) Act 2002* (Vic.), and was proclaimed on the 30 October 2002 (appendix 1).

The park includes the former Reef Hills Park (2040 ha) that was included on Schedule 3 of the National Parks Act as a result of the *National Parks (Further Amendment) Act 1984* (Vic.), and proclaimed on 2 May 1986 in accordance with the LCC recommendations for the North Eastern Area (Benalla – Upper Murray) (LCC 1986), except for the areas of shooting range and environs. It also includes 18 ha of former Crown land. The main north– south Reef Hills Road is not part of the park.

#### 1.3 Plan development

This Management Plan for Reef Hills State Park was prepared by Parks Victoria on the basis of existing information, reports and research findings that relate to the park, including the existing Reef Hills Park Management Plan (DCFL 1987), the State Government's response to the Box–Ironbark Forests and Woodlands Investigation Final Report (ECC 2001) and Parks Victoria's conservation objectives for the park.

The contents of the existing Reef Hills Park Management Plan, which was approved following public consultation in 1987 (DCFL 1987), was reviewed. Due consideration was given to the overall progress in implementing the plan, to the new State Park's reservation status and boundary, and the Governmentaccepted Environment Conservation Council (ECC) recommendations. The plan is informed and supported by a range of best practice management systems.

Significant input of information and advice was sought and received from communities, groups, individuals and agencies with particular interests in the park.

The plan is a strategic guide for future management of Reef Hills State Park. As a public document, the plan establishes how Parks Victoria will protect Reef Hills State Park's natural and cultural heritage values, and describes the services and facilities that will be provided to help visitors enjoy, appreciate and understand the park in ways that are consistent with this. The plan also serves to inform and encourage cooperative land management and participation in community-based programs by Parks Victoria and the managers of areas adjacent to the park.

As a working document for the park, the plan informs Parks Victoria's development of Corporate Plans, serves as a framework for subsequent detailed planning and governs management activities.

The Draft Management Plan was published for public comment in May 2006, and 26 submissions were received (appendix 2). All submissions on the draft plan were carefully considered and taken into account in preparation of this final management plan. Where necessary, further consultation with the community and stakeholders was undertaken.

Key changes made to the draft plan in preparing this management plan included:

- more information about management of the kangaroo population and the planned kangaroo management strategy.
- review of the area available for prospecting and a reduction of the area from 85% of the park to about 70% to better protect significant flora species at risk from ground disturbance in the southern section of the park.
- updated flora and fauna information.

This management plan replaces the Reef Hills Park Management Plan (DCFL 1987) and will direct the future management of the park until reviewed (section 9.3).

## 2.1 Regional context

Reef Hills State Park is within the Goulburn and Broken River catchments, and partly within each of the Northern Inland Slopes Bioregion and the Victorian Riverina Bioregion.

Areas surrounding the park have been largely cleared of natural vegetation for agricultural purposes. Major land uses in the vicinity of Reef Hills State Park are agriculture and forestry.

The park is one of a number in north-eastern Victoria valued for providing opportunities for nature-based recreation. These include:

- Mount Buffalo National Park and the Alpine National Park, which protect extensive areas of alpine and subalpine vegetation communities and are highly valued for winter recreational activities, including downhill and cross-country skiing
- Chiltern Mt Pilot National Park, which is valued for its unusually high concentration of threatened flora and fauna
- Warby Range State Park, a highly diverse dry Box Woodland containing White Cypress-pine and grass-tree communities
- Mount Samaria State Park, which is valued for its diverse vegetation communities and its distinctive landscape, in particular the steep escarpments, waterfalls and valleys.

The area including the Reef Hills State Park is characterised by historic parks, reserves and sites associated with early Victorian gold mining, including Eldorado Dredge and Nine Mile Creek Historic Area.

Major population centres in the area include Benalla, Wangaratta and Albury–Wodonga in the north, Myrtleford in the east, Shepparton in the west and Seymour in the south.

The care of the park is of great importance to the identity and wellbeing of the Traditional Owners, and to the park. Many others in the community have historical associations with the area. The park is also within the boundaries of Tourism Victoria's North East Tourism Region and High Country product region. Visitation to the area includes 1.3 million domestic overnight visitors (10% of the State total) and 1.5 million domestic day visitors (6% of the State total). Almost half of all visitors to the region are engaged in naturebased tourism, which is one of the region's strengths (Tourism Victoria 2004).

## 2.2 Park significance and values

Reef Hills State Park is one of 30 State Parks in Victoria and makes a valuable contribution to Victoria's parks and reserves system, which aims to protect viable, comprehensive, adequate and representative samples of the State's natural environments. The park provides opportunities for visitors to enjoy and appreciate natural and cultural landscapes in solitary and social settings, and makes an economic contribution to the Benalla region through tourism.

The park is assigned the International Union for the Conservation of Nature and Natural Resources (IUCN) Category II (National Parks) of the United Nation's List of National Parks and Protected Areas. Category II areas are managed primarily for ecosystem protection and recreation.

Significant features of the park include the following:

#### **Natural values**

- The endangered Alluvial Terraces Herbrich Woodland, which is unusually in a mosaic with Heathy Dry Forest.
- The endangered Plains Grassy Woodland/Gilgai Wetland Mosaic.
- A number of species that are members of the Victorian temperate woodland bird community, which is listed as threatened under the *Flora and Fauna Guarantee Act* 1988 (Vic.).
- Six vascular flora species and 24 fauna species that are threatened in Victoria.

- Two flora species and three fauna species of high conservation significance for the Northern Inland Slopes bioregion.
- One flora and two fauna species that are nationally threatened.

### **Cultural values**

- Aboriginal places and objects including scarred trees, isolated artefacts and camp sites.
- Historic gold mining relics and the historical associations of the community to the land.

#### **Recreational and tourism values**

- Natural area easily accessible from the Hume Freeway and Benalla.
- Scenic drives, bicycle riding, wildlife viewing, walking and picnicking.

## 2.3 Evidence of past use

The Taungurung people harvested a range of foods, and materials for clothing, shelter, medicinal purposes, canoes, spears, shields, *nulla nullas* (Aboriginal clubs), boomerangs, tools and dishes from the forests and woodlands (ECC 2001).

'Firestick farming' of the Box–Ironbark forests and woodlands was thought to be central to the Indigenous way of life and involved burning of the countryside in what is now described as a mosaic pattern, which had the multiple effect of flushing out game and rejuvenating plant growth, and attracting animals once new growth started. Frequent firestick farming is thought to have promoted a more open structure of forest, characterised by widely spaced mature trees (section 4.6).

Reef Hills State Park has been subject to a range of past land uses, primarily gold mining and timber harvesting. Today the visible effects of this human activity and use have diminished. Nevertheless, many undesirable effects associated with past use, such as weed invasion and changes to the structure of native vegetation communities, persist.

Gold was discovered in Reef Hills in 1860 and both alluvial and reef mining took place in the area until early last century. The deepest mine was the Lion which was 76 metres deep. Traces of workings can still be seen along the ridges and in the gullies in the northern part of the park.

The forest was utilised for timber for more than a century. During the gold mining period the forest was heavily cut to service the mines. The area was proclaimed as a Timber Reserve in 1877, and commercial harvesting of timber for firewood, fencing materials and other minor forest products continued until 1998.

## 2.4 The park visitor

Reef Hills State Park receives approximately 13 000 visitors each year. The majority of visitors to the park are residents from the nearby Benalla Township.

Bushwalking, bicycle riding, picnicking, horse riding and bird watching are some of the more popular activities undertaken by visitors. Additional visitors are expected to be attracted to the park as its natural and cultural heritage values become more widely known.

In terms of statewide priorities, Parks Victoria has rated the park as a regional and localised value park for the provision of visitor services. The natural values of the park will be promoted as a priority, while resources for visitors will focus on the picnic area, the principal visitor site in the park.

# 2.5 Legislation and ECC recommendations

## Legislation

Reef Hills State Park is reserved and managed under the National Parks Act. The Act requires the Secretary to the Department of Sustainability and Environment (DSE) to preserve and protect the natural condition of the park and its natural and other features and, subject to this, to provide for the use of the park by the public for enjoyment, recreation and education. Appropriate research activities are also provided for under the Act.

The objects and provisions of the National Parks Act set the framework for the management of Reef Hills State Park (appendix 1). Specific legislation and ECC recommendations accepted by government also govern particular aspects of management of the park as described below and in subsequent sections of the plan. The *Aboriginal Heritage Act 2006* (Vic.) applies to the park and protects all Aboriginal places, objects and human remains (section 5.1).

In recognition of the historical and cultural association of the Yorta Yorta people over their traditional Country, which includes the park, a Yorta Yorta Cooperative Management Agreement was signed by the State Government and the Yorta Yorta people on 10 June 2004. The Yorta Yorta Cooperative Management Agreement covers approximately 50 000 ha of public land area and waters within the Country of the Yorta Yorta people and does not include reference to the park. The *Native Title Act 1993* (Cwlth) does not apply to the management of the park.

The Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) applies to the whole of the park with respect to actions that have, will have or are likely to have a significant impact on matters of national environmental significance, including listed threatened species and communities, listed migratory species in the park..

The *Parks Victoria Act 1998* (Vic.) enables management services for Reef Hills State Park to be provided on behalf of the Secretary by Parks Victoria. The National Parks (Park) Regulations 2003 apply to the park.

Other legislation, policies and guidelines (section 2.6) at both the Commonwealth and State levels apply to management of the park and specific activities and uses.

#### **ECC** recommendations

In its *Box–Ironbark Forests and Woodlands Investigation Final Report* (ECC 2001), the former Environment Conservation Council made a number of recommendations that relate to the park area. The recommendations included the:

B Use of Reef Hills State Park (B4) in accordance with the general recommendations for State Parks.

Should the current use of any of the three licensed shooting ranges lapse, they be rehabilitated and added to the park.

G9 A 123 ha Reef Hills Reference Area be established in the park to represent a

land system featuring Plains Grassy Woodland/Gilgai Wetland Mosaic, for future comparative study.

- R8 Land managers continue with and further develop adaptive management research and monitoring programs, develop targeted new programs and apply the results where appropriate.
- R15 Planning and management relating to traditional interests and uses be based on recognition and respect for the traditional and contemporary relationship of Aboriginal peoples with the land.
- R42 Box–Ironbark public lands be available for a range of recreation activities for community enjoyment and appreciation and appropriate to the land use category.

All of these recommendations were accepted by the State Government in February 2002 (Government of Victoria 2002).

## 2.6 Policy and guidelines

The park is also managed in accordance with Parks Victoria's operational policies and, where appropriate, other relevant policies and guidelines, including:

- Indigenous Partnership Strategy and Action Plan (Parks Victoria 2005a)
- Guidelines for working with Aboriginal communities and protection of cultural sites (Parks Victoria 2002)
- *Heritage Management Strategy* (Parks Victoria 2003)
- Code of Practice for Fire Management on Public Land (DSE 2006)
- Guidelines and Procedures for Ecological Burning on Public Land in Victoria (DSE 2004)
- North East Fire Protection Plan (DSE 2003a)
- *Recreation Framework for Box–Ironbark Public Land* (DSE 2003b)
- National Strategy for Ecologically Sustainable Development (COAG 1992)

- National Strategy for the Conservation of Australia's Biological Diversity (ANZECC 2001)
- *Kangaroo Management Strategy* (Parks Victoria 1998).

The park is also managed within a broader context of a number of other plans and strategies, including:

• Biodiversity Acton Planning: Strategic Overview for the Goldfields Bioregion, Victoria (DNRE 2002a)

- Goulburn Broken Regional Catchment Strategy (GBCMA 2003)
- North East Tourism Development Plan 2004–2007 (Tourism Victoria 2004)
- Policy for Sustainable Recreation and Tourism on Victoria's Public Land (DNRE 2002b)
- Victoria's Biodiversity Strategy (DNRE 1997).

## 3.1 Vision

Reef Hills State Park is an important community landscape that protects significant natural, cultural and recreational values.

The park supports a viable remnant of Box– Ironbark forest and woodland that provides valuable habitat for populations of threatened flora and fauna of high conservation value, notably Purple Diuris, Narrow Goodenia, Squirrel Glider, Brush-tailed Phascogale and a number of member species of the FFG-listed Victorian temperate woodland bird community.

The cultural heritage of the park is protected and conserved by management based on a sound and increasing understanding of the park's cultural heritage values, including Indigenous customs, traditions, interests and rights in the land.

The park provides visitors with a range of recreational opportunities in an accessible natural setting and is highly valued by local residents as a conservation reserve in an otherwise modified landscape. Visitor facilities are in keeping with the scale and relatively undeveloped character of the park. Increased visitor use is sensitively and sustainably managed.

Community views and aspirations for the park are respected and integrated into park management. Management focused on restoring biological values and habitat linkages with surrounding remnant vegetation is supported by local community groups, adjacent landholders, research institutions and government organisations. Interpretation and education programs strengthen appreciation of the uniqueness of the park and its values.

#### 3.2 Management directions

The Traditional Owners knowledge and interests in the area and aspirations for *Country*, will be reflected in the park's planning and management, in accordance with legislation and policies (Parks Victoria 2005a).

Other major management directions for the park are outlined below.

#### Natural values conservation

- In the long-term, a more natural structure will be restored to vegetation communities to increase their habitat diversity.
- Linkages between the park and remnant habitat on public and private land will be encouraged.
- Viable populations of threatened flora and fauna will be maintained.
- Research into the management requirements of threatened plant and animal species and communities will be encouraged.
- Pest plants and animals that have the potential to threaten park values will be controlled and, where practicable, eradicated.
- Soil erosion, habitat fragmentation, visual impacts and illegal rubbish dumping will be minimised by closing and rehabilitating unnecessary and informal vehicle and walking tracks.
- The impact of kangaroo grazing pressure on vegetation communities and threatened flora species will be managed.

#### **Cultural values conservation**

- Aboriginal places and objects will be protected from interference or damaging activities.
- Indigenous cultural obligations relating to *Country* will be respected, and Traditional Owners and Indigenous communities' knowledge promoted and interpreted in accordance with the views of their views.
- Historic places and relics will be protected and conserved.
- Research into Indigenous and postsettlement cultural heritage of the park will be encouraged and supported as appropriate in collaboration with the Traditional Owners and the wider community.
- The impact of any works on the park's cultural heritage values will be minimised

by careful planning, design, siting and construction activities.

#### The park visit

- Information and interpretation about the park's natural and cultural heritage values will be improved to enhance visitor understanding and enjoyment.
- Visitor services and facilities will be maintained in keeping with the scale and relatively undeveloped character of the park and will be consistent with the protection of park values.
- Recreation will be managed to encourage visitor enjoyment and understanding of the park, with minimal impact on the park's values.
- Recreation activities will be permitted in zones as shown in table 1
- Visitors will be encouraged to adopt minimal impact techniques and to adhere to industry-developed standards appropriate to their activity.
- Visitor safety will be enhanced by the establishment of a monitoring and maintenance program, including regular safety audits for visitor facilities and sites.

#### **Community awareness and involvement**

- A strong collaborative relationship will be developed with the relevant Registered Aboriginal Party to facilitate the reflection of Indigenous knowledge and their interests and aspirations for the area, in all aspects of planning and management for the park.
- The wider community will be encouraged to become more aware of the park and appreciative of its values.
- Local communities and visitors will be encouraged to develop a sense of custodianship for the park and participate in its management.
- Friends, volunteers and other interest groups will be encouraged to develop an understanding and appreciation of the park's values and the rich and diverse knowledge and aspirations of the Traditional Owners and Indigenous communities.

- Strong cooperative relationships will be further developed and maintained with groups and individuals who have particular interests in the park and wish to become involved in park management or to maintain a traditional association with the park.
- Programs will be designed to make good use of the skills, knowledge and enthusiasm of community groups as appropriate.
- Collaborative partnerships will be established with relevant agencies and institutions to progress areas of mutual interest which contribute to protection of the park.
- Ongoing opportunities will be given for community groups and individuals to meet with the park's managers to discuss their aspirations, raise issues and hear about management activities and management plans for the park.

#### 3.3 Zoning

A park management zoning scheme has been developed to:

- provide a geographic framework in which to manage the park
- reflect sensitivity, fragility and remoteness of natural values
- indicate which management directions have priority in different parts of the park
- indicate the types and levels of use appropriate throughout the park
- assist in minimising existing and potential conflicts between uses and activities, or between activities and the protection of the park's values
- provide a basis for assessing the suitability of future activities and development proposals.

Two management zones apply to the park the Conservation and Recreation Zone and the Reference Area Zone. In addition, five management overlays designate areas to which additional management requirements apply (table 2 and figure 2).

ACTIVITY	MANAGEMENT ZONES		OVERLA	YS			
	1	2	3	4	5	6	7
(percentage of park)	(94%)	(6%)	(<1%)	(1%)	(70%)	(<1%)	(3%
Bicycle riding (section 6.5)	Y	Ν	Ν	Y	Y	Y	Y*
Bush walking (section 6.4)	Y	Ν	Y	Y	Y	Y	Ν
Campfires (section 6.3)	Y	Ν	Ν	Ν	Ν	Ν	N
Camping (section 6.3)	Y	Ν	Ν	Ν	Y	Ν	Ν
Car rallies	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Dog walking on lead (section 6.6)	Y	Ν	Y	Y	Y	Y	Y*
Feeding wildlife	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Filming and photography	Y	Ν	Y	Y	Y	Y	Y*
Firewood collecting for use in the park (section 6.3)	Y**	Ν	Ν	Y**	Ν	Ν	N
Fishing	NA	NA	NA	NA	NA	NA	NA
Prospecting (metal detecting) (section 6.8)	Y	Ν	Ν	Ν	Y	Y	N
Hang-gliding	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Heritage and nature study	Y	Ν	Y	Y	Y	Y	Ν
Horse riding (section 6.7)	Y	Ν	Ν	Y	Y	Y	Y*
Hunting	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Orienteering and rogaining (section 6.9)	Y	Ν	Ν	Y	Y	Y	Ν
Picnicking	Y	Ν	Y	Y	Y	Y	Ν
Scenic driving (section 6.2)	Y	Ν	Ν	Y	Y	Y	Y*
Trail-bike riding (section 6.2)	Y	Ν	Ν	Y	Y	Y	Y*

## TABLE 1 SUMMARY OF RECREATIONAL OPPORTUNITIES

Use of chainsaws and generators is not permitted.

#### Key:

1 2	Conservation and Recreation Zone Reference Area Zone	Y	Permitted subject to overlay prescriptions and conditions prescribed by legislation, licensed tour permits or elsewhere in the plan
3 4 5	Special Protection Area – Cultural values Special Protection Area – Natural Values Land Use Designation – Prospecting	N NA	Not permitted Not applicable
6 7	Special Management Area Overlay – Public Utilities Special Management Area Overlay – Public Safety	*	Not permitted while shooting ranges are in use Only within 100 m of picnic area

ZONE/OVERLAY	AREA/LOCATION	VALUES/USE	GENERAL MANAGEMENT AIM		
ZONE					
Conservation and Recreation	1909 ha; 94% of the park.	Important natural values and scope for recreational opportunities and tourism.	Protect natural environments and provide for sustainable, dispersed recreational activities and small-scale recreational facilities without significant impact on natural processes.		
Reference Area	123 ha; 6% of the park. Reef Hills Reference Area.	Relatively undisturbed land types and associated vegetation.	Protect viable samples of one or more land types that are relatively undisturbed for comparative study with similar land types elsewhere, by keeping all human interference to the minimum essential and ensuring as far as practicable that the only long-term changes result from natural processes in accordance with Ministerial directives and Parks Victoria's operational policies.		
OVERLAY					
Special Protection Area – Cultural Values	25 ha; <1% of the park, the area 100 m east of Reef Hills Rd south of Baines Rd intersection.	Important Indigenous cultural heritage values.	Protect cultural values in a specific area where a special management focus is required.		
Special Protection Area – Natural Values	30 ha; 1% of the park. An area 300 m east of Indians Road, 300 m north and south of Double Gates Rd and west to the park boundary; and an area of 100 m radius at the picnic area.	Important natural values.	Protect vulnerable natural values in specific areas where a special management focus is required.		
Land Use Designation – Prospecting	1425 ha, approx 70% of the park.	Prospecting area.	Allow suitable prospecting under Section 32D of the National Parks Act while protecting biodiversity, catchment, geological and cultural values.		
Special Management Area – Public Utilities	18 ha; <1% of the park. The overhead electrical transmission line easement inside the eastern boundary of the park.	Overhead electrical transmission line.	Minimise the impact of activities associated with the maintenance and operation of the overhead electrical transmission line including the clearing and pruning of vegetation.on park values.		
Special Management Area – Public Safety	117 ha; 6% of the park. Safety buffers surrounding shooting ranges.	Safety buffers.	Minimise the risk of shooting and associated activities on visitors and park values.		

#### TABLE 2 MANAGEMENT ZONES AND OVERLAYS

## 4.1 Landscape

The park's Box–Ironbark forests and woodlands are an important natural feature in an area that has been largely cleared of natural vegetation for agricultural purposes.

Past land use has created various visual intrusions in the landscape that detract from the naturalness of the area. They include:

- a disused gravel extraction pit
- internal tracks and roads (section 6.2)
- an overhead electrical transmission line that runs inside the eastern boundary of the park (section 7.1)
- various structures and earthworks within shooting ranges surrounded by the park (section 7.4)
- remnants of orange clay targets scattered in the bush from the clay target shooting range (section 7.4).

The landscape is an intrinsic element of *Country* for Traditional Owners and is significant for Indigenous communities.

#### Aims

- Minimise visual impacts on the landscape, especially landscape visible from recreation sites.
- Where possible, remove or ameliorate undesirable visual intrusions that have no natural or cultural heritage values.

#### **Management strategies**

- Locate any new public utilities and infrastructure in existing cleared and disturbed areas where possible.
- Rehabilitate the disused gravel extraction pit on Tower Road using indigenous species.
- Work cooperatively with shooting range licensees to minimise the impact of shooting ranges on park landscape values (section 7.4).

## 4.2 Geological features

The park is named after the Reef Hills, which are low hills (approximately 230 metres above sea level) of Devonian Silurian sedimentary rocks in the north-central part of the park. Folding occurred in the Devonian period, creating a number of dykes and quartz reefs. The plains near the southern boundary of the park comprise Quaternary alluvial deposits (DCFL 1987).

The soils on the hills are generally uniform stony loams and red duplex, with red and weakly bleached gradational soils on the slopes. Red duplex and yellow duplex soils (some with gilgais) are found on the plains (DCFL 1987).

According to Indigenous tradition, geomorphological features are an important element of *Country* and of significance to Indigenous communities.

#### Aims

- Minimise impacts on geological features.
- Increase visitor understanding and appreciation of geological features.

#### Management strategies

- Identify, respect and protect landform features of significance to the Traditional Owners (sections 5.1, 6.1 and 8.2).
- Ensure that impacts from visitors, management activities and educational studies on the park's geological features are minimised.
- *Provide interpretive material highlighting the park's geological features.*

## 4.3 Rivers and catchments

Reef Hills State Park lies within the Goulburn Broken Catchment, which is the Goulburn Broken Catchment Management Authority's area of responsibility.

The Goulburn Broken Catchment covers an area of 2.4 million ha or 10% of the State and is made up of the Goulburn and Broken River Catchments. The catchment has a population of approximately 190 000, with the majority of residents living in the urban centres of Shepparton, Mooroopna, Benalla, Seymour, Kyabram, Cobram, Yarrawonga, Numurkah, Nathalia, Mansfield and Yea (GBCMA 2003).

Since European settlement approximately 70% of the catchment's native vegetation, predominantly on the fertile riverine plains and valleys, has been cleared for agriculture, infrastructure and the expansion of urban centres (GBCMA 2003). Consequently, many vegetation communities originally found in these areas are now considered to be endangered.

The Goulburn and Broken Rivers are the major waterways in the catchment. The Broken River, in conjunction with One Mile Creek and Five Mile Creek, receives flows from gullies draining the park.

The major threats to remnant vegetation and waterways in the catchment include pest plant and animal invasion (section 4.7), rising groundwater levels, agricultural and urban run-off, soil erosion and altered water regimes (GBCMA 2003).

#### Aim

• Protect, maintain and improve the ecological condition of waterway catchments in the park.

#### **Management strategies**

- Ensure appropriate erosion control measures are undertaken during all relevant park works.
- Ensure that fire management activities do not adversely affect the ecological condition of waterway catchments in the park (section 4.6).

## 4.4 Vegetation

#### **Vegetation communities**

The Box–Ironbark forests and woodlands of northern Victoria have been severely degraded since European settlement and now only small isolated remnant areas remain, with little protected on public land (ECC 2001). As a result, the ecological vegetation classes Box– Ironbark Forest (Northeastern Hills community), Heathy Dry Forest, Alluvial Terraces Herb-rich Woodland/Heathy Dry Forest Mosaic and Plains Grassy Woodland/Gilgai Wetland Mosaic within Reef Hills State Park are of considerable conservation significance.

Box–Ironbark Forest (Northeastern Hills community) is found on the slopes of the hills in the north of the park and is vulnerable in the Northern Inland Slopes bioregion. The overstorey is dominated by Grey Box and Red Box, and the sparse shrub layer often consists of Blue Finger-flower, Golden Wattle and various peas. The ground layer comprises Silvertop Wallaby-grass, Common Raspwort, Wattle Mat-rush and numerous lilies and orchids including Chocolate Lily, Sun Orchid and Twining Fringe-lily (CEM 2002).

Heathy Dry Forest occurs on the hill tops and ridges in the park and is depleted in the Northern Inland Slopes bioregion. Red Stringybark, Long-leaved Box and Red Box form the overstorey. Epacrids, including Daphne Heath and Cat's Claw Grevillea, tend to dominate the shrub layer. Numerous lilies and orchids are present in the ground layer including Musky Caladenia, Purplish Beardorchid and Black-anther Flax-lily. Grassy areas dominated by Silvertop Wallaby-grass and Grey Tussock-grass are also present (CEM 2002).

The unusual Alluvial Terraces Herb-rich Woodland/Heathy Dry Forest Mosaic occurs on the plains and drainage lines in the south of the park and is endangered in the Victorian Riverina bioregion. The overstorey is a mix of Yellow Box, Grey Box, Red Box, Hill Red Gum, River Red Gum, Red Stringybark, Longleaved Box and White Box. Stands of Golden Wattle and Hedge Wattle are found in the shrub layer. A variety of grasses, lilies and other herbs dominate the ground layer, including Wallaby Grass, Weeping Grass, Austral Carrot, Stinking Pennywort and Cyperaceae species (CEM 2002). Reef Hills State Park contains approximately 518 ha of this mosaic, which is 100% of that remaining in the State's protected area network (ECC 2001).

Plains Grassy Woodland/Gilgai Wetland Mosaic occurs in shallow basins in the southeast of the park and is endangered in the Victorian Riverina bioregion. The mosaic is characterised by an overstorey of River Red Gum, White Box and Grey Box. Golden Wattle and Hedge Wattle dominate the shrub layer. Milkmaids, Small St John's Wort, Coarse Bottle-daisy, Grassland Wood-sorrel, Weeping Grass and Cyperaceae species are found in the ground layer (CEM 2002). Private property adjoining the south-eastern boundary of the park also contains important remnants of this community.

Prior to European settlement, the park's vegetation communities were most likely dominated by large, wide-crowned, hollowrich and widely spaced trees (ECC 2001). As a result of timber harvesting, the large trees in the park have been principally replaced by much smaller trees growing at much higher densities. In many cases multiple stems have grown on from the initial coppice regrowth generated when the original large trees were first cut. This substantial change in structure and large tree abundance has reduced the habitat diversity of the vegetation (ECC 2001). However, large old trees dominate some sites in the park and provide important habitat for hollow-dependent fauna, including the threatened Brush-tailed Phascogale, Squirrel Glider and Regent Honeyeater (section 4.5).

In accordance with the ECC recommendations, an ecological management strategy has been developed to achieve a parks and reserves system that more closely resembles the pre-European vegetation, and to address broader biodiversity elements including pest plants, pest animals, land degradation and fire.

A key element of the strategy and a major focus of the research program is a landscapescale experiment to examine changes in forest structure, flora and fauna in response to ecological thinning. The experiment has been established at Castlemaine Diggings NHP, Pilchards Bridge NCR, Paddys Ranges SP and Spring Plains NCR. Monitoring of forest structure, understorey flora, selected invertebrate groups, arboreal mammals and birds is being undertaken as part of the experiment. The broader application of ecological thinning in other parks will be investigated following the conclusion of the trial in approximately seven to ten years.

The ecological management strategy will provide opportunities for a broader range of research to be undertaken, including monitoring of threatened species, fire management and selected threats. Reef Hills State Park is a refuge for a population of Eastern Grey Kangaroos. Ground surveys have estimated the kangaroo population to be in excess of 1000 (Morgan 1997; 1998). Reduced predation and the establishment of artificial water supplies (e.g. dams) in the park and on adjacent land have favoured the kangaroo population in the park. There is a growing concern that grazing pressure from the kangaroo population is suppressing the regeneration of woody and herbaceous species in the park's vegetation communities, particularly in the park's isolated northern block and along the southern boundary of the park. In addition, the kangaroo population may be impacting on agricultural productivity on adjacent land and the vegetation on the adjacent Golden Vale Golf Course (section 4.5).

Indigenous people recognise vegetation as an intrinsic element of *Country*, and Traditional Owners maintain a sophisticated knowledge of its value and uses.

#### Flora species

The park's vegetation communities support over 240 native vascular flora species. Of these species Bent-leaf Wattle, Woolly Wattle, Forest Bitter-cress, Clover Glycine, Narrow Goodenia and Purple Diuris are threatened (appendix 3). Narrow Goodenia and Purple Diuris are also regarded as being of high conservation significance for the Northern Inland Slopes bioregion. Grazing pressure from kangaroos, trampling, mechanical damage by vehicles and machinery, inappropriate management regimes, and illegal collection may threaten the long-term viability of Clover Glycine, Narrow Goodenia and Purple Diuris in the park due to their small isolated populations. Special protection areas have been developed to protect vulnerable ground flora species from soil-disturbing activities (figure 2).

An important body of research has been carried out in the park by a number of tertiary and scientific institutions, including vegetation condition mapping and ecological responses of Box–Ironbark forest and woodland to fire. The results of this research have enhanced the understanding of the park's ecological processes. Further research, however, is required to guide the park's future vegetation management. Future research requirements include the distribution of flora, the ecological processes influencing these distributions, factors affecting their survival and their response to various active management regimes.

## Aims

- Protect and preserve indigenous flora, particularly species significant to conservation.
- Protect and preserve indigenous vegetation communities and, where possible, restore their structure and composition to a more natural state, particularly significant plant communities.
- Increase knowledge of significant flora and vegetation communities.

## Management strategies

- Increase and enhance linkages between the park and surrounding remnant vegetation on public and private land by supporting DSE's biodiversity action planning (section 7.4 and 8.3).
- Following the conclusion of the ecological thinning trial, investigate its application in Reef Hills State Park to expedite the development of a forest and woodland structure with a natural balance of juvenile, mature and old growth trees, where it is consistent with the protection park values.
- Promote the natural regeneration of woody and herbaceous species in the park's vegetation communities.
- Implement priority actions from approved action statements or recovery plans to address threats to threatened species or communities listed under the FFG Act.
- Work cooperatively with neighbouring landholders and with government and nongovernment organisations to coordinate and initiate sympathetic management of remnant vegetation surrounding the park under their control.
- Encourage monitoring and research on significant plant and vegetation communities to improve knowledge of their distribution and management requirements.

- Implement the kangaroo management strategy for the park and surrounding land to reduce grazing impacts on vegetation communities (section 4.5)
- Refine flora and fauna vegetation management in accordance with the latest research and monitoring findings, and consistent with the protection of cultural values.
- *Reflect Indigenous knowledge of vegetation management practices as appropriate.*
- Respect the cultural obligations of Traditional Owners in relation to plants and their significance in all management and visitor activities (sections 4.5, 4.6, 5.1, 6.1 and 8.2).
- Publicise and enforce park regulations concerning the protection of native flora.
- Investigate erecting protective fences around Clover Glycine, Narrow Goodenia and Purple Diuris populations to prevent trampling, kangaroo grazing and damage by vehicles and machinery. Encourage research into the effects this may have on the population dynamics of the threatened species.
- Encourage a community group, in consultation with the Traditional Owners, to propagate and maintain native plant stocks, including rare and threatened species recorded in the park, for restocking and revegetation.

## 4.5 Fauna

The vegetation communities in the park provide habitat for a wide range of mammal, bird, reptile and amphibian species, many of which are totally or partially dependent upon tree hollows for breeding or refuge (Alexander 2002). Of these species, 24 are threatened and three are of high conservation significance for the Northern Inland Slopes bioregion (appendix 4).

A number of detailed mammal surveys have been undertaken in the park between 1982 and 2002. Native mammals recorded include the Eastern Grey Kangaroo, Koala, Black Wallaby, Squirrel Glider, Brush-tailed Phascogale, Yellow-footed Antechinus, Sugar Glider, Short-beaked Echidna and eight bat species. Of these, the most significant is the Brush-tailed Phascogale, which is considered vulnerable in Victoria (DSE 2005a) and is listed under schedule 2 of the Flora and Fauna Guarantee (FFG) Act. The protection and enhancement of the population in the park is considered essential to the species' conservation in North East Victoria, and the park has been designated as a priority management area for the species (Alexander 2002).

Kangaroo numbers in the park are considered to be at an above normal level because of water availability and grazing opportunity on adjoining private land. The development of a kangaroo management strategy is proposed to guide the management of kangaroos in the park and surrounding land.

Research into the kangaroo population (Morgan 1997; 1998) established a population density benchmark for kangaroos in the park and also established monitoring protocols. Subsequent work on the use of fire to manage vegetation diversity in the park has established that it is severely compromised by post-burn macropod grazing. In general, kangaroos use the park as shelter during the day and graze on surrounding private property during the night, so any control strategy needs to involve adjoining landholders. The availability of grazing on private land and plentiful supplies of water in artificial dams and the park's fire water points (section 4.6) are factors in the kangaroo numbers.

More than 100 bird species have been recorded in the park, including a significant number of species belonging to the Victorian temperatewoodland bird community which is listed un the Flora and Fauna Guarantee Act, such as the Regent Honeyeater, Turquoise Parrot and Diamond Firetail (appendix 4). Biannual surveys of the nationally threatened Swift Parrot and Regent Honeyeater are undertaken by local bird observer groups and enthusiasts in May and August.

A total of 10 reptiles and eight amphibians have been recorded in the park, including the Bearded Dragon, Wood Gecko, Olive Legless Lizard, Large Striped Skink, Tree Goanna, Peron's Tree Frog, Spotted Marsh Frog and Southern Bullfrog. To date the park has not been intensively surveyed for reptiles and amphibians and it is likely that further species will be found as additional surveys are undertaken.

Threats to native fauna recorded in the park include:

- habitat modification caused by increased grazing pressure from kangaroos, inappropriate fire regimes, removal of fallen timber, loss of tree hollows and weed invasion (sections 4.4 and 4.7)
- predation by introduced species, including foxes, dogs and cats (section 4.7)
- disturbance to feeding, movement and reproductive patterns as a result of visitor and management activities.

In addition, the isolated forest and woodland habitats of the park may not be large enough in the long term to support viable populations of threatened fauna. This isolation may also restrict the movement of threatened fauna between local populations, increasing the risk of their local extinction. Increasing linkages between the park and surrounding remnant vegetation on public and private land is therefore crucial for the conservation of these species (sections 4.4 and 7.2).

Further information concerning the distribution of fauna, the ecological processes influencing these distributions, factors affecting their survival and their response to various active management regimes is required.

Indigenous people recognise many fauna species as intrinsic elements of *Country* and maintain the traditional knowledge about their management and uses.

#### Aims

- Protect and preserve indigenous fauna and faunal habitat, particularly significant species and habitats.
- Increase knowledge of significant fauna species and faunal habitat.

- Establish a desirable population density for kangaroos in the park and surrounding private property.
- Develop a kangaroo management strategy for the park and surrounding land to address kangaroo population density and reduce grazing on vegetation communities

in accordance with Parks Victoria's operational policy. Key elements of the strategy will include:

- a focus on cooperative management with surrounding private and public land managers to minimise impacts on agricultural land
- a partnership with Golden Vale Golf Club Committee of Management in the section of the park north of the Hume Freeway (section 7.4)
- an adaptive approach to management that will be guided by vegetation condition, population monitoring and seasonal conditions
- a communication strategy to inform neighbours, park visitors and others of programs
- ecological impacts of prescribed burns and post-fire grazing by kangaroos
- animal welfare considerations.
- Protect large old tree sites in the park, which provide important habitat for hollow-dependent fauna.
- In areas containing regrowth, consider installation of nesting boxes in collaboration with Warrenbayne–Boho Land Protection and other community groups.
- Encourage surveys and research on significant fauna species and faunal habitat to improve knowledge of their management requirements.
- Where appropriate refine fauna management practices according to the latest monitoring and research findings.
- Support local bird observer groups in the survey of threatened species in particular Swift Parrot, Regent Honeyeater and Victorian temperate-woodland bird community species.
- Implement priority actions from approved action statements to address threats to threatened species or communities listed under the FFG Act.
- Support the ongoing monitoring of the Brush-tailed Phascogale population in the

park by DSE and the activities of Brushtailed Phascogale Coordinating Group.

- Support monitoring of threatened species as part of regionally coordinated programs.
- Enhance the existing woodland habitat of ground-foraging birds and mammals by retaining all fallen timber.
- Display signs in prominent positions to discourage illegal firewood collection.
- Promote the natural regeneration of woody and herbaceous species to increase faunal habitat values in the park.
- Where appropriate, encourage research to identify Indigenous knowledge relating to fauna.
- Respect the cultural obligations of Traditional Owners in relation to fauna and their significance in all management and visitor activities (sections 4.6, 5.1, 6.1 and 8.2).
- Work with other agencies and voluntary groups to identify key linkages and potential wildlife corridors connecting to the park. Support action by landholders, Landcare groups and DSE to establish wildlife corridors in key sites.
- In conjunction with DSE and Benalla Rural City Council, promote responsible pet ownership.

## 4.6 Fire management

The National Parks Act requires the Secretary to DSE to ensure that appropriate and sufficient measures are taken to protect parks from injury by fire.

Fire management in the park is governed by the North East Fire Protection Plan (DSE 2003a), the Mansfield Fire District Three Year Operational Plan (DSE 2005c) and the Code of Practice for Fire Management on Public Land (DSE 2006). Fire protection measures on adjacent freehold land are outlined in the Benalla Rural City Fire Prevention Plan (Benalla Rural City Council 2005a).

The North East Fire Protection Plan is a strategic work plan to prevent, prepare for, suppress and recover from wildfire on public land in the Mansfield, Ovens, Shepparton and

Upper Murray Fire Districts. The plan applies the following fuel management zones to the park:

- Zone 1 strategic fuel reduction corridors to protect human life, property and highly valued public land assets and values (the northern boundary of the park on the southern side of the Hume Freeway)
- Zone 2 strategic fuel-reduced corridors to provide barriers to the spread of wildfire (the eastern boundary of the park)
- Zone 3 broad area fuel reduction (the majority of the park)
- Zone 4 prescribed burning for the active management of flora and fauna (a site with large hollow-bearing trees on the eastern boundary of the park).

The North East Fire Protection Plan was prepared before the establishment of the Reef Hills Reference Area in the park. Currently, Fuel Management Zone 3 applies to the Reference Area, although Fuel Management Zone 5, which excludes prescribed burning, is usually applied to Reference Areas. Ministerial directives govern measures that are essential for fire safety.

The Mansfield (Goulburn) Fire District Three Year Operational Plan contains a schedule and maps for prescribed burns planned for the following three years, and is reviewed annually. It also contains details of proposed new preparedness works, and education and enforcement priorities.

The Code of Practice for Fire Management on Public Land requires that fire management activities ensure that environmental values, including the vigour and diversity of the State's indigenous flora, are protected, as far as practicable, from the harmful effects of wildfire and inappropriate fire regimes.

Little is documented about the fire history of the park area prior to settlement. Historical accounts of Indigenous life in northern Victoria indicate that Indigenous communities used fire to promote the fresh growth of grass, drive game, protect camp areas and attract grazing fauna (section 2.3).

Only seven small wildfires have been recorded in the park, totalling approximately 30 ha or less than 2% of the park. Three fuel reduction burns (123 ha in 1903, 192 ha in 1977 and 51 ha in 2004) have been undertaken in the park or land now included in the park, totalling approximately 366 ha or 18% of the park. In addition, the park has a long unrecorded history of regular burning associated with past timber harvesting. Prescribed burning in the park is a continuing management practice and recent burns in 2005 included a further 100 ha.

There are five fire water points in the park for use during prescribed burning and wildfire management (figure 2). Their need will be reviewed in the development of the kangaroo management strategy (section 4.5).

Frequent fires or long periods of fire exclusion could change the structure and composition of native vegetation communities and the persistence of dependent fauna. The ecological responses of the park's vegetation communities to fire are currently being studied by Melbourne University and previously by Deakin University, and this will help identify fire regimes appropriate to the conservation of the park's flora and fauna. Research by Meers and Adams (2003) suggests that large prescribed burn areas of up to 200 ha (10% of the park) are preferred to reduce the impacts of post-fire grazing by kangaroos.

Fire control activities, including the construction of control lines and the use of phosphate-based fire retardants, may result in the fragmentation, modification or loss of native flora, fauna and cultural heritage values.

#### Aims

- Protect park values from the deleterious effects of wildfire or inappropriate fire regimes.
- Cooperate with relevant agencies and land managers in the protection of human life, neighbouring properties and assets.

- Publicise and enforce fire regulations and restrictions on the use and role of fire within the park.
- Develop a prescribed burning strategy for the park in accordance with the Guidelines and Procedures for Ecological Burning on Public Land in Victoria (DSE 2004).

- Refine prescribed burning regimes to reflect the latest monitoring and research findings, with a preference for larger burn areas to reduce grazing pressure.
- Include the Reference Area in Fuel Management Zone 5 in the North East Fire Protection Plan as soon as practicable.
- Until the fuel management zones are updated, exclude prescribed burning from the Reference Area and manage it as Zone 5 through the Mansfield Fire District Three Year Operational Plan, unless burns are essential for public safety.
- Review the need for the fire water points, and their impact on kangaroo numbers, as part of the kangaroo management strategy (section 4.5).
- Develop guidelines on the preferred methods for suppression of wildfire in other areas of the park, and ensure that they are applied.
- Ensure that the revision and implementation of the North East Fire Protection Plan and the Mansfield Fire District Three Year Operational Plan is consistent with protection of park values, including the Reference Area.
- Protect Aboriginal and post-settlement cultural heritage values from damage by wildfire, suppression activities, and prescribed burns where practical.
- Encourage research into Indigenous knowledge relating to the use of fire, in cooperation with the Traditional Owners. Reflect Indigenous knowledge in education and management programs as appropriate.

# 4.7 Pest plants and animals, and diseases

Pest plants infest only small areas of the park. Pest plant species recorded in the park include Large Quaking-grass, Cat's Ear, Paterson's Curse, Cootamundra Wattle and St John's Wort. Due to its invasive nature and its ability to out-compete native flora species, St John's Wort poses the most serious threat to the integrity of vegetation communities in the park. Vectors contributing to the spread and establishment of pest plants in the park include illegally dumped garden refuse, pest animals, management and public vehicles, pest plant infestations and blue gum plantations on adjacent land and track network maintenance.

The plant pathogen, *Phytophthora cinnamomi* has not been recorded in the park to date but has been recorded on other public land within the district which shares vehicles, plant and equipment with the park.

A variety of introduced animals have been recorded in the park including rabbits, foxes and feral cats. Rabbits are thought to infest only a small proportion of the park and are having a low impact on park values. The impacts of fox and feral cat predation on native fauna are largely unknown but is likely to pose a significant threat to the following native fauna:

- small mammals, including the threatened Squirrel Glider, Brush-tailed Phascogale and Sugar Glider
- bird species that spend much of their time at or near the ground nesting and/or feeding, including the threatened Bush Stone-curlew and Speckled Warbler
- reptiles and amphibians, including the Olive Legless Lizard and Spotted Marsh Frog.

#### Aims

- Control and, where possible, eradicate pest plants and animals in the park.
- Minimise the impact of control programs on native flora, native fauna and neighbouring land.
- Restore indigenous native vegetation to areas where pest plants have been eradicated.

- Priority for pest plant and animal management will be given to:
  - the control of new pest plant infestations
  - pest plants with a high potential for invasion

- areas of high conservation significance, including the Reference Area and the endangered Plains Grassy Woodland/Gilgai Wetland Mosaic
- the control of St John's Wort
- the control of pest plant infestations around populations of threatened flora species and threatened fauna habitat
- the eradication of new pest animal populations as they are identified
- the control of foxes and feral cats.
- Liaise and coordinate pest plant and animal control efforts with neighbouring landholders and managers, including the Goulburn Broken Catchment Management Authority (sections 4.3, 7.4 and 8.3).
- Monitor the impacts of rabbits on park values. If the impacts become unacceptable, implement control measures.

- Where necessary and using local seed, restore indigenous vegetation to areas where pest plants have been eradicated.
- Inform visitors and adjacent landholders about relevant control programs.
- Ensure vehicles, plant and equipment, and gravel used to maintain vehicle tracks in the park, are not contaminated with Phytophthora cinnamomi or pest plants.
- In conjunction with DSE and Benalla Rural City Council, promote the responsible disposal of garden refuse.
- Work with the relevant Registered Aboriginal Party to ensure that Aboriginal cultural heritage is not adversely affected by management activities.

## 5 STRATEGIES FOR CULTURAL VALUES CONSERVATION

## 5.1 Indigenous cultural heritage

Due to the dispersed and intermittent nature of the area's food resources, Indigenous occupation and use of the land would have been irregular and dispersed, resulting in a low density of Indigenous sites (Freslov 2002). Some Indigenous sites within the park may have been destroyed by past land uses such as mining and timber harvesting. A survey of the park carried out in June 2002 located three Indigenous sites — two scarred trees and an isolated quartzite artefact (Freslov 2002).

According to Indigenous tradition, Reef Hills State Park lies within the *Country* of the Taungurung people. The Traditional Owners of the park area maintain an ongoing association with it. Their active involvement in the management and care of the park of great importance to their identity and wellbeing, and is important for the park.

All Aboriginal places, objects and Aboriginal human remains are protected under the Aboriginal Heritage Act (section 2.5). It is an offence to damage, interfere with or endanger an Aboriginal place, object or human remains except in accordance with a Cultural Heritage Management Plan developed with the relevant Registered Aboriginal Party(s) or where there is no Registered Aboriginal Party with the Department of Victorian Communities.

Issues relating to the protection of Aboriginal cultural heritage and the involvement of the Registered Aboriginal Party are approached in accordance with this Act.

The park was used by the Indigenous community to inter returned human remains in 2002. The burial site has been recorded and registered with AAV. Approval to inter human remains of a skeletal nature is not required for the purposes of the *Cemeteries Act 1958* (Vic.).

#### Aims

- Protect Aboriginal cultural heritage values from interference or damaging activities.
- Respect the views of the Traditional Owners in managing the park.

- Care for all Aboriginal cultural heritage and protect it from disturbance and damage, in partnership with the Registered Aboriginal Party and in cooperation with DVC (section 8.3), and in accordance with:
  - relevant legislation including the Aboriginal Heritage Act
  - relevant cooperative management agreements
  - Parks Victoria's Guidelines for Working with Aboriginal Communities and Protection of Cultural Sites (Parks Victoria 2002).
- Respect the views of the Traditional Owners and the cultural obligations of Indigenous communities.
- Facilitate the protection of Aboriginal cultural heritage by developing a memorandum of understanding with relevant Registered Aboriginal Party.
- Minimise the potential for impacts from park management activities on Aboriginal cultural heritage values by planning and implementing annual works programs and activities in conjunction with the relevant Registered Aboriginal Party.
- Maintain confidentiality in respect of Indigenous cultural obligations, knowledge, places, objects and aspirations, in accordance with the views of the Traditional Owners (sections 6.1 and 8.2).
- Foster Indigenous cultural heritage by encouraging the involvement of the Traditional Owners in the planning and delivery of Indigenous heritage protection, interpretation, education and tourism activities.
- Where appropriate, encourage and support research, recording, risk assessments and appropriate monitoring of Aboriginal places and objects, in collaboration with the Registered

Aboriginal Party, relevant Indigenous communities and in liaison with AAV.

- Work with the Traditional Owners to identify Aboriginal cultural heritage suitable for promotion in visitor information, interpretation and educational material to support the protection of values (section 6.1).
- Permit future interment of returned human remains within the registered burial site subject to the agreement of the Registered Aboriginal Party.

## 5.2 Historic heritage

In 1824 Hamilton Hume and William Hovell were the first Europeans to explore the Box– Ironbark region of northern Victoria. Soon after this time graziers settled in the region, but because of the relatively shallow and infertile soils, pastoralism was not established in the area now occupied by the park.

Gold was discovered in the area now occupied by the park in 1860, and both alluvial and reef mining took place until early last century. The deepest mine was the Lion, which was 76 metres deep. Traces of workings can still be seen along the ridges and in the gullies in the northern part of the park and are the only surviving evidence of gold mining in the Benalla area. No comprehensive investigation has been made of the condition or historical value of the remaining evidence of mining in the park. During the gold mining period the park's vegetation communities were heavily cut for timber. The area was proclaimed a Timber Reserve in 1877, and commercial harvesting of timber continued until 1998. As a consequence, the structure of vegetation communities in the park has been significantly altered (section 4.4).

Parks Victoria recognises and respects that many in the community have historical associations with the area.

Places of historic and cultural significance are managed in accordance with the Burra Charter (Australia ICOMOS 1999) and the provisions of the *Heritage Act 1995* (Vic.).

#### Aims

- Conserve and protect places and values of historic and cultural significance.
- Provide opportunities for people to learn about and understand the park's post-settlement cultural heritage values.

- In association with local historical societies and heritage experts, identify and document significant post-settlement cultural heritage values which reflect the history of the park.
- Provide visitor information, interpretation and educational material relating to the park's post-settlement cultural heritage values where appropriate (section 6.1).

# 6.1 Information, interpretation and education

Providing information, interpretation and education can help orientate and inform visitors, foster an understanding and appreciation of the park's special natural and cultural values, build understanding of management activities and help visitors to experience, understand and appreciate the park in a safe and appropriate manner.

Parks Victoria delivers information, interpretation and education to visitors by various means, including its website, ranger patrols, Park Notes, signage, tourism brochures and other publications, displays, and licensed tour operators. These services may be developed and provided in collaboration with other agencies. They communicate messages designed to present pre-visit information, orientate and inform visitors on arrival, and increase visitors' enjoyment and satisfaction by helping them to experience, understand and appreciate the park's special natural and cultural values. Some messages are designed to enhance visitors' safety, raise awareness of the values of the park and support for protection of those values, and build understanding of management activities and of natural environments in general.

Reef Hills State Park offers opportunities to develop themes related to the park's flora and fauna, geology, Indigenous and post-settlement cultural heritage.

Current interpretive material includes an information shelter at the entry to the park from the Midland Highway. The shelter has information that helps to orientate visitors and inform them about the park and its attractions.

Interpretive activities have been organised on request for community and school groups. In addition, the park's accessible Box–Ironbark forest and woodland is used by government and non-government land management agencies for interpretive and educational programs.

Many of Victoria's parks and reserves play an integral role in the delivery of nature-based tourism. The Box–Ironbark parks themselves are unlikely to become key destinations.

However, these parks, including the Reef Hills State Park, have the potential to become a valuable complementary product to existing regional tourism products.

The North East Victoria Regional Tourism Development Plan (Tourism Victoria 2004) outlines the strategic, product and infrastructure directions for the North East Tourism Region. The Reef Hills State Park complements the other tourist destinations in the region. There are opportunities for improved promotion of the park in conjunction with local attractions that could increase visitation.

#### Aims

- Promote and encourage visitors' discovery, enjoyment and appreciation of the park's natural and cultural values in a safe and appropriate manner through information, interpretation and education.
- Encourage public support for parks and park management practices.

- Provide access to pre-visit information about the park through Park Notes, ParkWeb, Parks Victoria's Information Centre, Box-Ironbark Education Kit and key community and user groups.
- *Maintain the information shelter at the park entrance.*
- In consultation with key community and user groups, develop and deliver visitor information, interpretation and educational material relating to:
  - natural values, particularly rare and threatened species and communities
  - geological features
  - Indigenous and post-settlement cultural heritage values
  - *current research and key management activities*
  - visitor safety, access and services.

- Provide visitors with face-to-face interpretation of park values by rangers as appropriate.
- Inform visitors of appropriate behaviour to conserve and protect park values and maximise visitor safety, and encourage them to adopt minimal impact techniques and to adhere to codes of conduct appropriate to their activity.
- Liaise with State and regional tourism authorities to ensure that the park is appropriately promoted in regional visitor information centres and in regional tourism strategies.
- *Regularly evaluate information and interpretive programs relating to the park.*

## 6.2 Vehicle access

The park is accessed from the Midland Highway close to the junction with the Hume Freeway, and from several minor roads (table 3). Approximately 45 km of formal vehicle tracks traverse the park (figure 3). Visitor use is concentrated on the tracks that lead to the picnic area and the inlying shooting ranges.

Maintenance of the main north–south Reef Hills Road, which is outside the park, is the responsibility of Benalla Rural City Council. All other vehicle tracks in the park are the responsibility of Parks Victoria.

Many of the vehicle tracks in the park were constructed for fire protection and timber extraction prior to the creation of Reef Hills Park in 1986, with little consideration of drainage patterns. As a result, a number of vehicle tracks are now affected by extensive soil erosion and are impassable after heavy rain. Consequently, seasonal closure of vehicle tracks is necessary when public safety and track surfaces may be at risk.

Numerous informal vehicle tracks throughout the park from past land uses were no longer required for visitor or management access. Rehabilitation and revegetation of these tracks under the existing plan is helping to reduce habitat fragmentation, erosion and the spread of pest plants.

Wattle Road is poorly sited, duplicates access in the northern part of the park and contributes to habitat fragmentation and erosion problems. The section of Rifle Range Road north of Indians Road is not needed for visitors or park management, and its closure would not reduce public or management access.

There are concerns about the risk to public safety from turning vehicles at the intersection of Reef Hills Road and the Midland Highway (section 6.11). For safety reasons access is not permitted on roads near the inlying shooting ranges when signs and flags warn that the shooting ranges are in operation.

The park is used occasionally by visitors for trail-bike riding. This activity includes both legal riding on roads and illegal riding off roads and on unregistered vehicles. The noise associated with this activity can disturb wildlife and visitors, and illegal riding off roads damages native vegetation and promotes soil erosion.

#### Aims

- Provide and maintain a safe and sustainable network of vehicle tracks appropriate for visitor use and management.
- Minimise the impact of vehicle and track management on the park's natural and cultural heritage values.

- Manage park vehicle tracks in accordance with table 3, figure 3 and the park's management directions.
- Ensure that maintenance works do not damage natural or cultural values by, where necessary, carrying out full environmental and cultural risk assessments in cooperation with Registered Aboriginal Party.
- Close and rehabilitate Wattle Road and the section of Rifle Range Road north of Indians Road as shown in table 3 and figure 3.
- Continue to rehabilitate informal vehicle tracks, giving priority to informal vehicle tracks in areas of high conservation significance.

Road/Track	CURRENT CLASSIF'N AND USE	PLANNED CLASSIF'N AND USE					
Hume Freeway	5A/M2		Managed by VicRoads. Freeway (section 7.4).				
Reef Hills Road	5A/M2		Managed by Benalla Rural City Council. Major road between towns.				
Managed by Parks	s Victoria						
Baines Road*	5D/M2	5D/M2	Maintain all weather access. Road provides access for park visitors and management. Seasonally close south of Centre Road intersection to Roes Road intersection.				
Centre Road*	5D/M2	5D/M2	Seasonally close south of Baines Road intersection. Maintain all weather access north of Baines Road intersection. Road provides access to the park and the Field and Game Club. Close section abutting the Special Management Area – Public Safety when the shooting range is in operation.				
Double Gates Road*	5D/M2	5D/M2	Seasonally close. Road provides access for park visitors and management.				
Four Mile Road	5C/M2	5C/M2	Maintain all weather access. Road provides access for park visitors and management.				
Indians Road*	5D/M2	5D/M2	Seasonally close south of Johnstons Road intersection. Maintain all weather access north of Johnstons Road intersection. Road provides access for park visitors and management.				
Johnstons Road	5C/M2	5C/M2	Maintain all weather access. Road provides access for park visitors and management.				
Rifle Range Road	5C/M2	5C/M2	Close north of Johnstons Road, duplicate section not required for visitor or management access. Road provides access for park visitors and management.				
Roes Road	5C/M2	5C/M2	Maintain all weather access. Road provides access to the park and the small bore rifle club. Close section in SMA – Public Safety when the shooting range is in operation.				
Steves Lane	5C/M2	5C/M2	Maintain all weather access. Road provides access to the park and the pistol club. Close section abutting SMA – Public Safety when the pistol range is in operation.				
Tower Road	5C/M2	5C/M2	Maintain all weather access. Road provides access for park visitors and management.				
Wattle Road	5C/M2	-	Close, track not required for visitor or management access.				

#### TABLE 3 MANAGEMENT OF ACCESS ROADS

Key:

\* Seasonal road closure commencing after Queen's Birthday weekend in June and continuing until the last weekend in October.

Parks	Parks Victoria Road classification:				
5A	Primary Road — all weather, two-laned, mainly sealed road.				

- 5B Secondary Road all weather, two-laned formed and gravelled, or single lane sealed with gravel shoulders.
- 5C Minor Road Single lane unsealed, formed road usually lightly gravelled.
- 5D Access Track Single lane, dry weather formed (from natural materials).

#### Use: M2

Visitors in 2WD and 4WD motor vehicles, cycling and, walking.

Site	LOS Existing/ Planned	TOILET	Car Park	PICNIC TABLE	Fire Place	WATER SUPPLY	Park Info
Picnic Area	Basic/Basic	Ν	Е	Е	Е	Ν	N
Park Entrance	Basic/Basic	Ν	Е	Ν	Ν	Ν	Е

## TABLE 4 EXISTING AND PLANNED VISITOR FACILITIES

Key

LOS (levels of service):

Basic — limited visitor facilities and amenities provided

- Liaise with Benalla Rural City Council to ensure that the maintenance of Reef Hills Road is compatible with the protection of park values.
- Continue to implement seasonal road closures as necessary to protect park values and visitors as shown in table 3 and figure 3, and install gates and signs as appropriate.

## 6.3 Visitor activities and camping

Reef Hills State Park is used mainly by Benalla residents for activities such as bushwalking, camping, picnicking, horse riding, cycling, nature study, school athletics events and trail-bike riding.

Park information and a car park are located at the park entrance off the Midland Highway. Picnic facilities including picnic tables, car parking and fireplaces are located at the intersection of Reef Hills Road and Double Gates Road (figure 2). The collection of fallen timber for fires is only permitted within 100 meters of the picnic area and must be used in the fireplaces provided. Opportunities for camping with a fire are available in the nearby State forest.

Dispersed camping is allowed in the park except within the Reference Area, Special Protection Area, Special Management Areas, 100 metres of vehicle tracks and 50 metres of the picnic area. Lack of water is a significant constraint to this activity. Demand for this activity is low and largely confined to local scout and outdoor groups for short periods. Facilities:

E maintain existing facility

N no facility

## Aims

- Maintain visitor facilities that enhance visitor enjoyment and are consistent with the protection of park values.
- Provide opportunities for dispersed camping consistent with the protection of park values.

- Consistent with the character of the park, maintain basic service levels at the picnic area in accordance with table 4 and figure
   Regularly evaluate the condition of the picnic area to ensure that visitor experiences and natural values are not compromised.
- Continue to promote a 'take your rubbish home' policy at the picnic area.
- Permit campfires only in designated fireplaces at the picnic area.
- Permit the collection of fallen timber for use only within the fireplaces provided at the picnic area.
- Monitor the availability of firewood in the picnic area and consider providing wood should impacts of collection become unacceptable.
- Encourage the use of portable stoves as an alternative to wood fires.
- Permit dispersed camping throughout the park except within the Reference Area, Special Protection Area, Special Management Areas and within 100 metres of vehicle tracks or 50 metres of the picnic area.

# 6.4 Bush walking

There are no formal walking tracks in the park. However, the network of vehicle tracks in the park provides ample opportunities for walkers to explore and enjoy the park's natural values. Due to the sparse understorey of the park's vegetation communities, the park is often used for off-track walking. As a result, a number of informal tracks have been created throughout the park. These informal tracks fragment park habitat and degrade visual landscape values.

With the assistance of the Friends of Reef Hills, a walking track is planned to be developed near the picnic area in the park. The track would comprise a loop track to the north of the picnic area taking in seasonal wildflower displays and the parks primary mining heritage sites, the Lion and Golden Crown mines. The gentle terrain of this area makes it suitable for a track that could be used by people with limited mobility.

The Federation of Victorian Walking Clubs has developed 'Tread Softly' minimal impact practices for bushwalkers (FVWC 2006).

# Aim

• Provide a range of walking opportunities consistent with the protection of park values.

# **Management strategies**

- Encourage walking on designated vehicle tracks throughout the park (figure 3 and table 3).
- Promote the Federation of Victorian Walking Clubs (FVWC) 'Tread Softly' minimal impact practices for bushwalkers.
- Monitor the impact of walking activities and, where necessary, close and rehabilitate informal walking tracks to protect park values.
- With assistance from the Friends of Reef Hills and in conjunction with the Traditional Owners, develop a loop walking track starting from the picnic area via Lion and Golden Crown mines. Using former tracks routes, where possible, establish to a standard suitable for use by people with limited mobility.

# 6.5 Cycling and mountain bike riding

Cycling, particularly mountain bike riding, is a popular activity in the park. Cycling is permitted on all roads and vehicle tracks. For their safety, cyclists are not permitted near the inlying shooting ranges when signs and flags warn that the ranges are in use.

The 'Mountain Biking Code' (DSE 2003c) sets out guidelines for safe cycling and methods to minimise the impacts of cycling on park values.

# Aim

• Provide opportunities for cycling that are consistent with the protection of park values.

# **Management strategies**

- Permit cycling (including mountain bike riding) on all roads and tracks open to public vehicles, subject to seasonal closures (figure 3 and table 3) and road closures in or adjacent to the Special Management Areas – Public Safety (figure 2) when signs and flags indicate that the shooting ranges are in use.
- Encourage cyclists to adopt minimal impact practices outlined in the 'Mountain Biking Code'.

# 6.6 Dog walking

Dogs on a leash will continue to be permitted in the park. Unrestrained dogs may prey on or disturb native fauna, particularly birds that spend much of their time at or near the ground for nesting and or feeding (section 4.5). Unrestrained dogs may also be a nuisance to some park visitors.

Dog walking is not permitted within the Reference Area. For their safety, visitors with dogs are not permitted near the inlying shooting ranges when signs and flags warn that the ranges are in use.

# Aims

- Provide opportunities for walking dogs on a leash.
- Protect park values and visitor enjoyment from disturbance by dogs.

## Management strategies

- Permit dogs in the park subject to the following conditions:
  - dogs must be on a leash at all times
  - *dog faeces must be removed from the park by the person with the dog*
  - dogs are not permitted in the Reference Area, or the Special Management Areas – Public Safety when signs and flags warn that the shooting ranges are in use (figure 2 and tables 1 and 2).
- Publicise the reasons for keeping dogs on a leash in the park.
- Monitor the impacts of dogs in the park. Consider prohibiting dogs from the park if the impacts become unacceptable.

# 6.7 Horse riding

Horse riders use the park regularly, although not in large numbers. They are permitted on all open roads and vehicle tracks in the park as shown on figure 3 and listed in table 3.

Horse riding, particularly in groups, can conflict with other visitor activities and result in damage to tracks, accelerated soil erosion and the introduction of pest plants. For safety reasons, horse riding is not permitted near the inlying shooting ranges when signs and flags warn that the ranges are in use.

# Aim

• Provide opportunities for recreational horse riding that are consistent with the protection of park values and other visitor activities.

#### **Management strategies**

- Permit horse riding on all roads and tracks open to visitors in motor vehicles (figure 3 and table 3), subject to seasonal closures and road closures in or adjacent to the Special Management Areas – Public Safety (figure 2) when signs and flags indicate that the shooting ranges are in use.
- Prohibit camping with horses in the park.

- Monitor the impact of horse riding in the park. Where necessary, restrict access to tracks to protect park values.
- Encourage horse riders to adopt minimal impact practices outlined in the 'Horse Riding Code' (DSE 2003d).

# 6.8 Prospecting

Prospecting, not previously permitted in Reef Hills Park, is permitted in the park under Section 32D of the National Parks Act. In Victoria, prospecting is controlled primarily under the provisions of the *Mineral Resources* (*Sustainable Development*) Act 1990 (Vic.), which requires that prospectors hold a Miner's Right (MR) or operate under a Tourist Fossicking Authority (TFA). Prospecting under such authorities is conditional on the protection of vegetation and the repair of any damage to the land, including the backfilling of any holes on the same day and use of nonmechanical hand tools only.

Prospecting is permitted in 70% of the park (figure 2). Prospecting is not permitted in the Reference Area, the Special Protection Areas and an area in the south-west of the park between Indians, Double Gates and Reef Hills Roads to protect vulnerable cultural and natural values from disturbance, nor in the Special Management Areas – Public Safety for visitor safety (table 1 and figure 2).

Parks Victoria seeks to manage prospecting in cooperation with prospecting clubs and organisations in a manner that protects the natural and cultural features of the park.

A *Prospecting Guide* has been collaboratively developed by Parks Victoria, the Prospectors and Miners Association of Victoria (PMAV), the Victorian Gem Clubs Association and the Victorian Government (DPI 2004). The guide provides information about prospecting, including PMAV's Code of Conduct for this activity. Information networks used by prospectors include meetings and newsletters of the PMAV and other prospecting clubs, as well as equipment suppliers and websites (section 6.1).

# Aim

• Permit prospecting while minimising the impacts on the natural and cultural values

of the park and the amenity of other park visitors.

# **Management strategies**

- Permit prospecting in the Land Use Designation – Prospecting area as shown in figure 2, subject to prospectors holding a current Miners Right or operating under a Tourist Fossicking Authority.
- Monitor the impacts of prospecting on the park's natural and cultural heritage values.
- Review the prospecting area if impacts become unacceptable or further information about vulnerable natural or cultural values becomes available.
- Work cooperatively with the PMAV to encourage prospectors to adhere to the 'Prospectors and Miners Code'.
- Include information about the prospecting area in the park on the information board at the park entrance.

# 6.9 Orienteering and rogaining

Schools and orienteering clubs occasionally use the park for orienteering. This activity usually has a low impact, with some potential to trample vegetation. The Box–Ironbark woodlands are an attractive location for orienteering due to the extensive network of all-weather roads created during timber harvesting operations, and the undulating terrain and natural outcrops.

# Aim

• Permit orienteering and rogaining while minimising the impact on park values.

# **Management strategies**

- Allow orienteering and rogaining in the Conservation and Recreation Zone except for Special Protection Area and Special Management Areas – Public Safety, through the issue of permits and in accordance with Parks Victoria's operational policies.
- Monitor the impacts of orienteering and rogaining and manage access to sensitive areas through the issue of permits. Review access and available areas as appropriate.

• Work with event organisers, representative organisations and schools to identify and protect sensitive values or features in proposed event areas.

# 6.10 Tourism services

Parks Victoria's licensed tour operators play a key role in nature-based tourism in Victoria by offering guided park tours and supported recreation activities, and information that promotes park values and appropriate use.

No commercial tour operators currently use the park. However, its natural and cultural heritage and recreational assets could support a range of nature-based and educational tourism activities.

Adventure Activity Standards and Minimal Impact Guidelines have been developed by Sport and Recreation Victoria, the Department of Sustainability and Environment, Parks Victoria and Tourism Victoria to guide tour operators using the park (ORC 2006).

# Aim

• Provide opportunities for and encourage provision of external tourism services while minimising impacts on natural and cultural values of the park.

- Ensure that tour operators using the park are licensed and promote awareness of Adventure Activity Standards and Minimal Impact Guidelines.
- Continue to work with licensed tour operators and the tourism industry to assist with the delivery of appropriate park information.
- Host a familiarisation day with relevant hospitality businesses and information services in the area to promote opportunities in the park as a drawcard to the area.
- Encourage licensed tour operators to develop and deliver guided tours that enhance the park experience of visitors (sections 6.1 and 8.2).
- Encourage the Traditional Owners to facilitate interpretive and educational

tours of appropriate Aboriginal cultural heritage, and seek a tour operator licence.

• Liaise with licensed tour operators to provide information and advice on appropriate activities and on the park's values.

# 6.11 Public safety

A number of public safety issues in the park relate to motor vehicle use. The north–south Reef Hills Road is used by through traffic, often travelling quickly. This presents a safety risk to visitors and wildlife. The noise and dust associated with vehicles travelling along Reef Hills Road also detracts from the enjoyment of the area by visitors and has an adverse impact on roadside vegetation. Kangaroos crossing major roads between the park and adjacent land also pose a risk to motorists (section 7.4).

Slow-moving motor vehicles entering and leaving the park via Reef Hills Road pose a safety risk to motor vehicles travelling along the Midland Highway at high speed. VicRoads manage this intersection, and consideration of changes will be based on 'through' and 'turning' traffic volumes.

Motorists, cyclists, horse riders and walkers share internal tracks throughout the park. Motor vehicles travelling at excessive speeds along internal tracks pose a safety risk to other track users.

Three gun clubs operate within or adjacent to the park (section 7.4). Fallout zones for these clubs are identified on figure 2, and visitors need to be aware of their location. Signs highlighting the danger and flags displayed when the ranges are in use warn visitors to stay out of the areas (sections 6.2, 6.5. 6.6 and 6.7).

Wildfire during dry times and extremes in weather conditions present possible hazards and risks to visitors.

Visitors need to be aware of safety risks to ensure that they enjoy a safe visit. Public information and education programs are one of the most effective ways to promote safety (section 6.1).

Parks Victoria is not the lead agency for most emergency response situations, but provides a support role for emergency incidents where required. Relevant agencies respond to incidents within the park in accordance with the *Benalla Rural City Emergency Response Plan* (Benalla Rural City Council 2005b). Parks Victoria's response to emergency incidents during normal operating activities within the park is guided by the *Wangaratta RIC Area Emergency Management Plan* (Parks Victoria 2005b).

# Aims

- Promote and encourage awareness of safety issues and risks within the park, and safe practices among park visitors.
- Cooperate with emergency services.

- Liaise with VicRoads and Benalla Rural City Council to improve the safety of motor vehicles entering and exiting the park from Reef Hills Road.
- Liaise with Benalla Rural City Council to reduce the speed of traffic through the park along Reef Hills Road.
- Increase visitor awareness of safety issues and potential hazards in the park through the use of Park Notes, ParkWeb and information signs.
- Provide and maintain safety and information signage at the park entrance and the shooting range inliers in the park (section 6.1).
- Conduct regular audits of identified risks and hazards within the park.
- Ensure that staff are adequately trained to assist in emergencies, including incident reporting.
- Promote the responsible and safe use of vehicles on the park's internal track network through appropriate signage and publications.
- Ensure that signage for Special Management Areas – Public Safety is maintained and work with local groups to ensure that access is closed and safe operational practices are followed during range events (sections 6.2, 6.5, 6.6 and 6.7).

# 7.1 Infrastructure

A number of uses and activities may be permitted in the park, subject to specified conditions to minimise impacts. The operation of public utilities in the park is subject to permission from the Secretary to the Department of Sustainability and Environment (DSE), who may impose conditions to minimise effects on the park and visitors.

The overhead electrical transmission line inside the eastern boundary of the park (figure 2) was established prior to creation of the former Reef Hills Park and is now maintained and operated by SPI PowerNet. The company is negotiating an agreement with the Minister under Section 27A of the National Parks Act that will enable it to continue to carry out its functions in the park and certain other protected areas, subject to conditions to protect the areas. Clearing and pruning of vegetation under the electrical transmission line is subject to the Code of Practice for Electrical Line Clearance (Vegetation) 1999.

# Aim

• Manage authorised uses in accordance with the National Parks Act and other legislation as appropriate, and minimise their impact on park values.

# **Management strategies**

- Liaise with SPI PowerNet to ensure that the impact of clearing and pruning of vegetation under the electrical transmission line that is required under the Code of Practice for Electrical Line Clearance (Vegetation) 1999 is minimised in accordance with agreements.
- Negotiate and as necessary renegotiate with SPI PowerNet and DSE on the provisions of any Section 27A agreement relating to the park, to support the protection of the park from works associated with the operation of the transmission facility.

# 7.2 Private occupancies

Apiculture is permitted in the park, subject to the outcome of research into the ecological

impacts of this industry and park management requirements, in accordance with ECC general recommendations for State Parks (ECC 2001).

Three apiary sites are currently available in the park but demand for their use has been low. One site is within the 'buffer' of the Reference Area and therefore conflicts with the ministerial directives for the management of Reference Areas. An alternative location for this site may be identified in consultation with the Victorian Apiarists Association (VAA). Another site in the Reference Area was discontinued in 2002, in accordance with the government-accepted ECC recommendations. Apiary sites are authorised under Section 21(1)(b) of the National Parks Act for a period not exceeding six months.

As there were no mineral exploration licences current when the park was proclaimed, none may be granted for any areas of the park in the future.

# Aim

• Manage authorised occupancies and activities in accordance with the National Parks Act, and minimise their impact on park values.

# **Management strategies**

- Continue to allow three apiculture sites in accordance with the government-accepted ECC recommendations and Parks Victoria's operational policy.
- In consultation with the VAA, identify an alternative location for the site that is within the Reference Area buffer.

# 7.3 Occasional uses

All research and monitoring planned in a National Park or State Park by external organisations or individuals requires a research permit under the National Parks Act.

Occasional requests are received to hold major events and functions, including athletics carnivals, in the park.

Parks Victoria recognises the significant role that the filming and photography industry plays in the well-being of the community, and in providing for these activities seeks to ensure protection of the natural and cultural values of the parks and reserves. This is achieved through a permit system for all filming and photography conducted as part of a trade or a business. Amateur photographers or people taking film or video for personal or hobby interest do not require a permit.

Protected areas are generally avoided as locations for Defence Force training exercises, although they are sometimes used for search and rescue, field navigation and incident response activities. Activities are subject to a permit with conditions to ensure that values of the park are protected.

## Aim

• Manage occasional uses in accordance with the National Parks Act and other legislation as appropriate, and minimise their impact on park values.

## Management strategies

- Permit and encourage events and functions that:
  - do not have unacceptable environmental impacts
  - *do not damage cultural heritage values of the park*
  - do not unduly disturb and disadvantage other visitors
  - *do not unduly increase liability risk exposure*
  - *can be appropriately managed with available resources.*
- Favour events and functions that provide community benefits or complement park values.
- Ensure that relevant Registered Aboriginal Party is consulted and involved in the planning of relevant events.
- Manage commercial filming and photography and permit Defence Force adventure training and field navigation exercises in accordance with Parks Victoria's operational policies.

# 7.4 Park boundaries and adjacent uses

The park is bordered to the south, west and across the Midland Highway to the east by private land cleared for agricultural and rural residential purposes. However, private land adjacent to the south-eastern boundary of the park contains remnants of the endangered Plains Grassy Woodland/Gilgai Wetland Mosaic vegetation community (section 4.4). A blue gum plantation south-west of the park, and other patches of remnant vegetation, are considered in the management of pest plants and animals and fire.

The Hume Freeway, which was constructed in the 1980s, cuts through the northern part of the park, isolating a small block on the northern side of the freeway. This isolated northern block is bordered by the Golden Vale Golf Course. The remnant forest and open grassland of the golf course complement the park by providing habitat for a number of fauna species, including the threatened Bush Stonecurlew, Brush-tailed Phascogale and Turquoise Parrot (Alexander 2002).

Land use and development on land surrounding the park is regulated by Benalla Rural City Council through the local planning scheme. Most of the land surrounding the park is zoned Rural. The Golden Vale Golf Course is zoned Public Park and Recreation, and other land is zoned Rural Living. Before deciding on an application to use or develop land within these zones, Benalla Rural City Council must consider the likely environmental impacts. In addition, DSE's bioregional action planning (DNRE 2002a) encourages the complementary management of private and public land surrounding the park that is important for biodiversity conservation.

The park surrounds rifle, clay target and pistol ranges, which were excised from the park in accordance with government-accepted ECC recommendations (section 2.5 and figure 3). The rifle range is on the eastern boundary of the park and is used on most weekends and sometimes on weekdays by the Benalla Rifle Club. The range is also used by the Benalla Small-bore Rifle Club approximately once a week and occasionally by the Australian Army and the Army Reserve. The clay target range adjoins the rifle range and is used on approximately 20 weekends per year and occasionally during the week. Shooters at the clay target range and pistol range, who need to carry guns through the park on park roads, must do so under an authorisation under Section 37 of the National Parks Act. The pistol range is inside the north-western corner of the park and is used weekly. No visitor safety problems associated with the shooting ranges have been identified to date, but the continuing potential for such problems must be recognised.

Kangaroos crossing major roads adjacent to the park present a safety risk to motorists (section 6.11). VicRoads is investigating the erection of a kangaroo proof fence along the section of the Midland Highway that adjoins the park.

Issues that can directly affect both the park and its neighbours include pest plant and animal control, fire management and boundary maintenance. Where residential developments adjoin the park, potential impacts on park values include loss of landscape values, uncontrolled access and encroachments.

#### Aim

• Cooperate with adjoining landholders and Benalla Rural City Council to manage boundary and adjacent land use issues.

- Liaise with local community groups and landholders and involve them in relevant aspects of the park's planning and management.
- Encourage landowners to use covenants and support initiatives such as Landcare and Land for Wildlife to enhance conservation values on adjacent land (section 4.4).

- Encourage landholders to maintain fences along the park boundary.
- Under Section 37 of the National Parks Act, authorise current members of recognised shooting clubs that use the rifle, clay target or pistol range to carry guns on appropriate public roads in the park while travelling to events.
- Apply and encourage the application of the Good Neighbour policy to management issues on or near the boundary of the park.
- Support DSE's 'Bioregional Action Planning' initiatives.
- Work cooperatively with the Golden Vale Golf Club Committee of Management, the gun clubs and private land holders to coordinate complementary management of adjacent threatened fauna habitat under their control (section 4.4).
- Liaise with Benalla Rural City Council to seek the application of appropriate overlays on land surrounding the park, to better ensure development and land use changes are compatible with the protection of park values.
- If use of any of the three shooting ranges surrounded by the park lapses, ensure that the areas are rehabilitated with indigenous vegetation and are added to the park.
- Liaise with VicRoads regarding the construction of a boundary fence along the Midland Highway and to minimise impacts associated with the management of the Hume Freeway, particularly from road works and signage.

# 8.1 Community awareness

Raising the community's awareness of the park's values is an essential step in developing its sense of custodianship for the park and engagement in the area's management. The community is more likely to develop a sense of custodianship for the park if its views and values are respected and park-related social networks are encouraged and supported. A strong connection with the park among visitors and the local and wider community will assist in broader public education, raising awareness and reaching others in the community.

Education and interpretation programs (section 6.1) play an important role in raising the awareness of the park in the wider community. Parks Victoria aims to communicate the benefits of a healthy parks system and its contribution to the health of individuals and society through the 'Healthy Parks Healthy People' program.

## Aims

- Increase community awareness and understanding of the park's values and management activities.
- Encourage communities to act as custodians and advocates of the park.
- Maintain good relations with neighbours and the local community.

#### **Management strategies**

- Promote opportunities for community members to improve park management by taking shared responsibility and becoming directly involved (section 6.1).
- Host an annual 'Park Information' seminar, with involvement of the Traditional Owners, to provide information to the local community and park neighbours on the annual work program and the implementation of the management plan, to encourage coordination of land management operations, and to celebrate the

achievements of Friends, volunteers and community groups in the park.

- Increase public awareness and understanding of significant park management activities, including the management and interpretation of cultural heritage sites, fire management and fuel reduction burning, pest plant and animal control, ecological thinning trials and the conservation of threatened species through a newsletter or a regular article or column in a local newspaper.
- Communicate to the broader community the work of Friends, volunteers and community groups.
- Value and celebrate traditional community ties to the park.
- Liaise with the local community and Benalla Rural City Council to enhance community understanding of responsible pet ownership, planting of indigenous vegetation and problems associated with pest plants.

# 8.2 Community participation

The participation of community groups and individuals in the park's management can enrich and strengthen park management and is pivotal for the effective long-term planning, use and protection of the park's values.

The Traditional Owners have considerable interest in and aspirations for the park. Indigenous communities are also an important potential source of traditional knowledge about the area that has yet to be documented. A strong working relationship with the registered Aboriginal Party will be essential to reflecting Traditional Owner's views the park's planning and management and the reconciliation of their interests and aspirations with other members of the community.

Other Indigenous communities may also have a particular interest in the park.

Volunteers and community groups make valuable contributions to park management projects. They bring diverse and valuable information, knowledge, skills and experience to the park that may otherwise not be available to the park's managers. Volunteers also bring great enthusiasm and add valuable resources to assist with the care of the park.

The interests of community groups in the park often overlap and may not be complementary. There can be considerable mutual benefits where such groups work together and with Parks Victoria and the Traditional Owners to achieve common goals.

The Friends of Reef Hills formed in 2003 and have been actively involved in monitoring programs for threatened fauna, guided springtime walks and community education programs. Tertiary students use the park for work experience and research activities. These students give valuable assistance to the park while gaining important on-site experience in natural resource management.

## Aims

- Support and encourage the whole including volunteers to actively participate in the management of the park.
- Inform, enrich and strengthen the park's management with the community's tradition and customs, especially relevant Indigenous knowledge and customs.

#### **Management strategies**

- Continue to build a strong relationship with the Traditional Owners and other Indigenous communities with an interest in the park, and work with the Registered Aboriginal Party to reflect the Traditional Owners' knowledge, interests and aspirations for the area in all planning and management of the park.
- Establish and maintain a strong and cooperative relationship with Friends of Reef Hills, volunteers and other community groups that use or have an interest in the park, and work with and support them to achieve management objectives for the park while ensuring that volunteers have sustainable and rewarding experiences.
- Provide opportunities for and encourage tertiary students to undertake work experience and research that assists park

management and is consistent with the park's management directions.

- Encourage Friends and other community groups to participate in monitoring and recording programs for pest plants and animals, threatened flora and fauna, and cultural heritage values using standard methods.
- In consultation with the Registered Aboriginal Party, assess volunteer programs to minimise the potential impact on Aboriginal cultural heritage.
- Support capacity-building initiatives through appropriate training, tools and support that enable volunteers to participate more effectively in the planning, use and care of parks.

# 8.3 Agency partnerships

Although Parks Victoria is responsible for overall management of the park, other agencies are responsible for planning, managing or regulating certain activities in the park. A collaborative approach to management with these agencies will benefit the park and ensure that there is integrated implementation consistent with all relevant legislation and policy. All activities relating to the park that are carried out by Parks Victoria or other agencies need to accord with all legislation and government policy and, as far as practicable, be consistent with agencies' policies and guidelines. To ensure this occurs, park staff must work closely with staff of relevant agencies and collaborate in implementing activities where appropriate.

The Department of Sustainability and Environment (DSE) establishes parks and provides strategic direction and policy advice for management of the park, including fire, flora and fauna values, threatening processes, statutory planning and catchment protection. DSE also undertakes Biodiversity Action Planning to identify priorities and map significant areas for native biodiversity conservation at the landscape and bioregional scales. Parks Victoria is a support agency, operating at the direction of DSE for emergency responses.

The Department of Primary Industries (DPI) advises on pest plant and animals, salinity and sustainable production practices.

The Country Fire Authority (CFA) is a volunteer-based community service which responds to a variety of fire and emergency incidents.

The Goulburn Broken Catchment Management Authority (GBCMA) is responsible for ensuring the protection and sustainable development of land, vegetation and water resources within the region, including preparation of the Regional Catchment Strategy to specifically address impacts of land use and management on the catchment.

Benalla Rural City Council has a key role in administering the planning scheme for land adjacent to the park, including assessing developments that could impact on park values. Parks Victoria provides input into planning applications to ensure protection of park values (section 7.4).

Through Aboriginal Affairs Victoria (AAV), the Department for Victorian Communities is responsible for administering legislation protecting cultural heritage (sections 2.5 and 5.1). AAV and the North East Cultural Heritage Unit advise Parks Victoria on Indigenous matters.

Tourism Victoria is the State Government authority responsible for developing and marketing Victoria as a tourist destination, including the Victoria's High Country Tourist Region, within which the park is located.

# Aim

• Enhance park management by collaborating with other agencies to ensure that they give appropriate consideration to park values in planning and implementing their activities that relate to the park.

- Work collaboratively with all agencies to implement the vision and directions of the plan. In particular work with:
  - DSE to seek relevant advice for future planning and management, including protection of flora and fauna from potentially threatening processes and fire management, and to support Biodiversity Action Planning
  - GBCMA to ensure that the Regional Catchment Strategy specifically addresses the impacts of land use and management on the park
  - CFA to ensure that any adverse affects of fire and fire suppression on park values are minimised
  - AAV on issues relating to cultural heritage protection
  - Tourism Victoria and local tourism authorities to promote the park in regional visitor information centres and regional tourism strategies
  - Benalla Rural City Council regarding the administration of the planning scheme, including input into developments that may impact on the park.

# 9.1 Delivery and reporting

A range of approaches will be used to implement strategies in this plan. Some will be undertaken as part of routine management activities such as ranger visits; others will be addressed as part of regional programs undertaken across the State each year.

A priority list of all the strategies in the plan will be used to guide routine management, and identify detailed actions in annual regional programs. Priorities for regional programs vary from year to year depending on available resources and government priorities.

At the end of each year, progress towards implementing the plan will be reviewed and the priority list updated. Staff report internally against 'on time and within budget' delivery of regional programs and whether the completed strategy has achieved the objective. Parks Victoria reports annually to Government on the overall delivery of regional and divisional programs. This broader reporting on management performance is available in annual reports prepared on the National Parks Act and Parks Victoria.

In implementing the plan, Parks Victoria will work in partnership with Traditional Owners. Ongoing collaborative activities with interested members of Indigenous communities, the wider community, scientists and agencies in realising the vision and management directions for the park will be especially important, as outlined in previous sections of the plan.

The implementation of the plan will be consistent with Parks Victoria's commitment to sustainable practices, which involves the delivery of operations, services and facilities in an ecologically and socially responsible manner with minimal use of expendable resources and minimal generation of waste.

In implementing the plan, management will respond to monitoring and research information as it emerges. Parks Victoria's environmental management framework makes this possible. Based on the International Standard for Environmental Management Systems (ISO 14001), the framework ensures that the future condition of values is considered in identifying threats and developing actions to ameliorate them. Over time the success of actions is reviewed against set objectives to ensure ongoing learning and refinement of management. The selection of actions and treatments of threats are guided by the precautionary principle. Management options are evaluated on the basis of least impact on the environment. Treatment of threats with a potential for serious damage that is not addressed in the plan will not be postponed for lack of information.

Parks Victoria will use a variety of means to report to the community about the progress of implementation of the plan. The primary means will be through routine liaison between Parks Victoria, interested groups and individuals from the local community and relevant government agencies. In addition to giving regular updates, there will be opportunities for input by interested members of the community into annual priority setting and feedback on management performance. Events such as park open days and community and volunteer forums will offer similar opportunities for reporting and discussions about annual programs.

The results of monitoring and research work will continue to be available to the community as technical reports available on Parks Victoria's website, www.parkweb.vic.gov.au.

Parks Victoria will also report on the evaluation of the plan (section 9.3) at the start of a new or revised plan through routine liaison and community forums, and in the subsequent draft plan.

Future State of the Parks reports, which will be available on the Parks Victoria's website, will also include information on management performance in relation to the park.

# 9.2 Plan amendment

During the 10-year life of the plan, amendments to the plan may only be made by the Secretary to DSE, following an authorised process which includes community consultation as appropriate.

Circumstances that might lead to amendment of the plan include:

- the results of monitoring or research, management experience or new information (such as greater understanding of new threatening processes) which indicate the need for a change in management direction
- significant changes in visitation or use
- a change in policy that calls into question plan objectives
- new legislation (such as significant boundary changes).

The plan may also be amended if an activity, development or use which conflicts with the provisions of the plan is approved by government.

# 9.3 Evaluation and review

Periodically through the life of the plan, Parks Victoria will assess overall progress towards implementing the strategies in the plan and will also assess progress towards achieving the plan vision and directions. These evaluations will inform a decision about whether a new or revised plan is required. The achievements of the plan will be assessed by considering performance areas such as:

# Protecting natural values

- Maintaining self-sustaining populations of flora, fauna and vegetation communities.
- In the long-term, vegetation communities will be restored to a more natural structure.
- Meeting prescribed burning targets.
- Meeting community expectations as a good environmental manager.
- Timely management intervention to minimise threats of pest plants, pest animals and over grazing of vegetation by kangaroos.
- Minimal impact of permitted uses.
- Compliance with park regulations.

#### Protecting cultural values

• Progress towards working with the Registered Aboriginal Party in managing the park and in protecting and interpreting Aboriginal cultural heritage.

• Timely management intervention to avoid damaging activities and threats.

#### Managing recreation and visitor use

- Maintaining the levels of information and interpretation (section 6.1).
- Meeting and maintaining the levels of service for facilities (table 4).
- All facilities meet public safety standards and the majority of facilities with more than five years life expectancy.
- Meeting agreed road and track standards (table 3).
- All 2WD roads in at least fair to good condition.
- Minimal impact from visitors, including individuals and school and tour groups.
- Maintaining visitor use levels.
- Maintaining visitor satisfaction with adequacy of recreational opportunities.
- Meeting community expectations in relation to Parks Victoria's management of the park.

# Providing for research and promoting understanding

- Progress towards reflecting Indigenous views and aspirations in the park's planning and management.
- Improving understanding of the key threats, in particular management of kangaroos.
- Ongoing Indigenous and broader community participation.

Methods for evaluating the benefits of the plan are likely to be refined over time. Parks Victoria has introduced a range of structured monitoring practices to collect standardised and scientifically robust information. In particular, these will improve understanding of the outcomes of management on natural values; and allow improved reporting and assessment of performance. Parks Victoria also partners external research agencies to enhance knowledge and understanding of the values and features of the park and inform management decisions, particularly in relation to pest and fire management. By using sound methods this monitoring and research work will strengthen the basis for comparing management performance over time.

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# GLOSSARY

Aboriginal cultural heritage – Aboriginal places, objects and Aboriginal human remains.

**Biodiversity** – the natural diversity of all life: the sum of all our native species of flora and fauna, the genetic variation within them, their habitats and the ecosystems of which they are an integral part.

**Bioregion** – an area with unique underlying environmental and ecological features.

**Catchment** – the area of land that drains to a watercourse or estuary.

*Country* – in Indigenous usage, all of nature, culture and spirituality relating to an area.

Crown land – land belonging to the State.

**Cultural heritage** – refers to all buildings, objects, places, traditions and customs that have intrinsic value to people over time.

**Customs** – observances and practices of people (includes land management and resource use) in accordance with tradition.

**Ecological values** – the importance of natural assets in maintaining natural ecosystems and ecological processes, of which it is a part.

**Ecosystem** – a dynamic complex of interacting organisms and their associated non-living environment.

Freehold land – land held in private ownership.

Herb – a plant that does not produce a woody stem.

**Heritage** – a place, activity, cultural way of life, structure or group of structures that has aesthetic, historic, scientific or social value for the past, present or future generations.

**Indigenous communities** – Indigenous people who share cultural values and activities relating to the park.

**Indigenous people** – people who are descendants of Aboriginal Australians Torres Strait Islanders.

**Infrastructure** – physical structures that facilitate the human use of an area (e.g. roads, paths, toilet blocks).

**Levels of Service** – a strategic framework for visitor services and asset management that is used to support resource allocation decision-making to best provide appropriate recreational infrastructure in a consistent manner.

**Pest** – exotic organisms (plants, animals or pathogens) that, if introduced outside their natural or previous distribution, they cause significant changes to habitats, food chains, ecosystems or human health by feeding on or competing with native species.

**Private land** – land under freehold tenure (privately owned).

**Prescribed burning** – the controlled application of fire under specified environmental conditions to a predetermined area and at the time, intensity, and rate of spread required to attain planned resource management objectives.

**Prospecting** – the search for minerals (including gemstones) under a Miner's Right or Tourist Fossicking Authority.

**Registered Aboriginal Party** – a body registered under part 10 of the Aboriginal Heritage Act by the Aboriginal Heritage Council.

**Stakeholders** – those people and organisations who may affect, be affected by, or perceive themselves to be affected by, a decision or activity.

**Threatening processes** – a source of potential harm or a situation with a potential to cause loss.

**Tradition** — the body of knowledge, belief and customs that is passed from generation to generation.

**Traditional Owners – person with traditional or familial links**, an Aboriginal person with particular knowledge about traditions, observances, customs or beliefs associated with the area, and the person has responsibility under Aboriginal tradition for significant aboriginal places located in, or significant Aboriginal objects originating from, the area; or is a member of a family or clan group that is recognized as having responsibility under Aboriginal tradition for significant aboriginal places located in or significant Aboriginal objects originating from, the area.

**Values** – natural and cultural assets (e.g. historic artefacts, features, landscapes, flora and fauna species, flora communities) that have been given worth or are considered to be desirable.

**Vascular** — having internal tubular vessels for conducting fluids.

#### Abbreviations

AAV – Aboriginal Affairs Victoria.

DPI - Department of Primary Industries.

**DSE** – Department of Sustainability and Environment.

DVC – Department for Victorian Communities.

ECC – former Environment Conservation Council.

# APPENDIX 1 MANAGEMENT OBJECTIVES FOR STATE PARKS

Management objectives for State parks included on Two B of the National Parks Act are listed below.

For an up-to-date copy of the *National Parks Act 1975* (Vic.), refer to Victorian Acts on the Victorian Legislation and Parliamentary Documents website www.dms.dpc.vic.gov.au.

# 4. Objects of the Act

The objects of this Act are -

- (a) to make provision, in respect of national parks, State parks, marine national parks and marine sanctuaries
  - (i) for the preservation and protection of the natural environment including wilderness areas and remote and natural areas in those parks;
  - (ii) for the protection and preservation of indigenous flora and fauna and of features of scenic or archaeological, ecological, geological, historic or other scientific interest in those parks; and
  - (iii) for the study of ecology, geology, botany, zoology and other sciences relating to the conservation of the natural environment in those parks; and
  - (iv) for the responsible management of the land in those parks;
- (c) to make provision in accordance with the foregoing for the use of parks by the public for the purposes of enjoyment, recreation or education, and for the encouragement and control of that use.

# Section 17. National parks and State parks

- (2) The Secretary shall, subject to this Act –
- (a) ensure that each national park and State park is controlled and managed, in accordance with the objects of this Act, in a manner that will -

- (i) preserve and protect the park in its natural condition for the use, enjoyment and education of the public;
- (ii) preserve and protect indigenous flora and fauna in the park;
- (iii) exterminate or control exotic fauna in the park;
- (iv) eradicate or control exotic flora in the park; and
- (v) preserve and protect wilderness areas in the park and features in the park of scenic, archaeological, ecological, geological, historic or other scientific interest;
- (aa) have regard to all classes of management actions that may be implemented for the purposes of maintaining and improving the ecological function of the park;
- (b) ensure that appropriate and sufficient measures are taken to protect each national park and State park from injury by fire;
- (ba) ensure that appropriate and sufficient measures are taken
  - (i) to protect designated water supply catchment areas; and
  - (ii) to maintain water quality of and otherwise protect the water resources in those areas; and
  - (iii) to restrict human activity in those areas for the purposes of subparagraphs (i) and (ii);
- (c) promote and encourage the use and enjoyment of national parks and State parks by the public and the understanding and recognition of the purpose and significance of national parks and State parks; and
- (d) prepare a plan of management in respect of each national park and State park.

# APPENDIX 2 SUBMISSIONS ON THE DRAFT MANAGEMENT PLAN

A total of 26 submissions were received on the Draft Management Plan (24 May – 31 July 2006), from the following organisations and individuals. One submission was marked confidential.

Nаме	SUBMISSION No.
Submissions from groups	Total: 17
Department of Sustainability and Environment	1
VicRoads	2
Benalla Bushwalking Club	4
Victorian Gem Clubs Association	5
Warrenbayne–Boho Land Protection Group	7
Benalla Field and Game Inc	8
Four Wheel Drive Victoria	9
Bird Observers Club of Australia	10
Trust For Nature	11
Benalla and District Environment Group	12
Benalla Pistol Club	16
Bird Observers Club of Australia	18
Aboriginal Affairs Victoria	20
Friends of Reef Hills State Park	22
Vicwalk Conservation Committee	23
Victorian Environmental Assessment Council	24
Victorian National Parks Association	25

NAME	SUBMISSION No.	
Submissions from individuals	Total: 9	
David Dore	3	
Debbie Colbourne	6	
Anne Buchan	13	
Confidential	14	
Diane Irons	15	
Noel and Irene Ham	17	
Stan Williams	19	
Lance Williams	21	
Helen Repocholi	26	

SCIENTIFIC NAME	COMMON NAME	CONSERVATION	CONSERVATION STATUS		
		AUSTRALIA	VICTORIA	FFG	
Acacia flexifolia	Bent-leaf Wattle		r		
Acacia lanigera var. lanigera	Woolly Wattle		r		
Cardamine papillata	Forest Bitter-cress		v		
Diuris punctata var. punctata	Purple Diuris		V	L	
Glycine latrobeana	Clover Glycine	V	v	L	
Goodenia macbarronii	Narrow Goodenia	V	V	L	
Utricularia uniflora	Single Bladderwort		k		

#### APPENDIX 3 RARE AND THREATENED FLORA

Source: DSE 2005b.

#### Key:

Conservation status: Australia:

Austrana

V vulnerable under the Environmental Biodiversity and Conservation Act

#### Victoria:

v vulnerable

r rare

k poorly known

FFG:

L listed under the Flora and Fauna Guarantee Act

SCIENTIFIC NAME	COMMON NAME	CONSERVATION STATUS			
		AUSTRALIA	VICTORIA	FFG	
Mammals					
Petaurus norfolcensis	Squirrel Glider		e	L	
Phascogale tapoatafa	Brush-tailed Phascogale		v	L	
Birds					
Chthonicola sagittata	Speckled Warbler		v	L, LC	
Cinclosoma punctatum	Spotted Quail-thrush		nt		
Climacteris picumnus	Brown Treecreeper		nt	LC	
Grantiella picta	Painted Honeyeater		V	L, LC	
Lathamus discolor	Swift Parrot	EN	e	L, LC	
Lophoictinia isura	Square-tailed Kite		v	L	
Melanodryas cucullata	Hooded Robin		nt	L, LC	
Melithreptus gularis	Black-chinned Honeyeater		nt	LC	
Neophema pulchella	Turquoise Parrot		nt	L, LC	
Ninox strenua	Powerful Owl		v	L	
Plegadis falcinellus	Glossy Ibis		nt		
Stagonopleura guttata	Diamond Firetail		v	L, LC	
Xanthomyza phrygia	Regent Honeyeater	EN	cr	L, LC	
Member of the FFG-listed	Victorian temperate woodland	bird community			
Gerygone fusca	Western Gerygone	-		LC	
Glossopsitta pusilla	Little Lorikeet			LC	
Lichenostomus fuscus	Fuscous Honeyeater			LC	
Lichenostomus melanops	Yellow-tufted Honeyeater			LC	
Melithreptus brevirostris	Brown-headed Honeyeater			LC	
Microeca fascinans	Jacky Winter			LC	
Petroica goodenovii	Red-capped Robin			LC	
Turnix varia	Painted Button-quail			LC	
Reptile					
Varanus varius	Tree Goanna		V		
Amphibian					
	Brown Toadlet				

#### APPENDIX 4 RARE AND THREATENED FAUNA

- listed under Flora and Fauna Guarantee Act L
- LC member of the FFG-listed Victorian temperate woodland bird community

critically endangered cr





